Appendix A
MSDSs for Cleaners Used and Tested at Participating Facilities
High VOC Cleaners Used at Participating Facilities
High VOC Cleaner Used at the San Bernardino Sun
MATERIAL SAFETY DATA SHEET

EMERGENCY PHONE NUMBER FOR CHEMTREC: 1-800-424-9000
TRANSPORTATION EMERGENCY NUMBER: 1-800-424-9300

PRODUCT NAME: BLANKET & ROLLER WASH
CHEMICAL NAME: N/A
SYNONYMS: N/A
PRODUCT ID NUMBER: 5001-5
MSDS REVISION DATE: 03/09/2000

HAZARD RATING
LEAST = 0
SLIGHT = 1
MODERATE = 2
HIGH = 3
EXTREME = 4

HEALTH = 1
FIRE = 2
REACTIVITY = 0

WARNING STATEMENT:
Avoid contact with eyes, skin, and clothing. Wash thoroughly after handling. Keep away from heat. Keep containers closed. Use with adequate ventilation.
FOR INDUSTRIAL USE ONLY
Do not use, store, or transport any container that contained this product.

SECTION 1 - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>MATERIAL</th>
<th>CAS NUMBER</th>
<th>PEI/TLV</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic hydrocarbons</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>contains 1,2,4-Trimethylbenzene</td>
<td>6442-95-6</td>
<td>N/A</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>95-65-6</td>
<td>25 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Aliphatic hydrocarbons</td>
<td>6442-88-7</td>
<td>100 ppm</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td>85 - 90%</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Subject to the reporting requirement of Section 313 of SARA Title III.

SECTION 2 - EMERGENCY AND FIRST AID PROCEDURES

<table>
<thead>
<tr>
<th>EYE CONTACT</th>
<th>Gently flush eyes with water for at least 15 minutes, while holding eyelids apart to ensure complete irrigation. Seek medical attention immediately.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SKIN CONTACT</td>
<td>Remove contaminating clothing and shoes. Wash affected areas with soap and water and seek medical attention if irritation persists.</td>
</tr>
<tr>
<td>INHALATION</td>
<td>If high vapor concentrations are encountered or breathing difficulties or light headaaches occur, remove to fresh air. If breathing stops, give artificial respiration and seek medical attention immediately.</td>
</tr>
<tr>
<td>INGESTION</td>
<td>Do NOT induce vomiting. Seek medical attention immediately. If spontaneous vomiting occurs, keep head below hips to prevent aspiration of the liquid.</td>
</tr>
</tbody>
</table>

PEL - Permissible Exposure Limit (OSHA) TLV - Threshold Limit Value (ACGIH) NE - Not Established N/A - Not Applicable
Federal law requires persons receiving this Material Safety Data Sheet to study it carefully and become aware of the hazards of the product involved. Notify your employees, visitors, agents, and contractors of the information on this sheet.
SECTION 3 - PHYSIOLOGICAL EFFECTS AND HEALTH INFORMATION

**EYES**
Eye contact with liquids and vapors may cause mild irritation. Prolonged or repeated eye contact may cause moderate to severe irritation and aggravate pre-existing conditions.

**SKIN**
May cause skin irritation. Prolonged or repeated exposure may defat the skin with burning, drying and cracking, and skin burns. May aggravate pre-existing skin conditions.

**SYSTEMIC**
Acute overexposure is possible by way of inhalation and ingestion and may lead to nasal and respiratory tract irritation, gastrointestinal disturbances including nausea and diarrhea, central nervous system (CNS) effects including headache, dizziness, fatigue, and unconsciousness, and respiratory failure. Swallowing even small amounts of this product may lead to aspiration pneumonitis, which is evidenced by cyanosis and death.

Chronic overexposure to this product may cause liver and kidney damage based on studies of laboratory animals.

SECTION 4 - SPECIAL PROTECTION INFORMATION

**RESPIRATORY PROTECTION**
If workplace exposure limits of any component is exceeded, the use of a NIOSH/MSHA-approved respirator is advised.

**VENTILATION**
Provide sufficient local exhaust or general ventilation to maintain exposure below PEL's and IDLH's.

**PROTECTIVE GLOVES**
Recommended

**EYE PROTECTION**
Recommended

**OTHER PROTECTIVE EQUIPMENT**
To prevent repeated or prolonged skin contact, wear impervious clothing and boots. Accessibility to eye washes and safety showers in work areas is always recommended.

SECTION 5 - REACTIVITY DATA

**STABILITY**
Stable

**CONDITIONS TO AVOID**
Heat, sparks, flames, and pilot lights

**INCOMPATIBLE MATERIALS TO AVOID**
Strong oxidizing agents

**HAZARDOUS DECOMPOSITION PRODUCTS**
Thermal decomposition in the presence of air may potentially yield various hydrocarbons as well as oxides of carbon.

**HAZARDOUS POLYMERIZATION**
Will not occur

SECTION 6 - SPILL OR LEAK PROCEDURES

**PRECAUTIONS IN CASE OF RELEASE OR SPILL**
Keep away from any source of ignition. Wear protective equipment. Stop and/or contain discharge and ventilate area. Prevent from entering drains, sewers, or streams.

**WASTE DISPOSAL METHOD**
Pump or transfer spilled material to containers for recovery. Absorb uncontrollable product. Dispose of in accordance with applicable regulations.
SECTION 7 - STORAGE AND SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS
Keep from sources of heat and ignition. Ground containers when transferring material. Store with adequate ventilation and keep containers closed when not in use.

OTHER PRECAUTIONS
Depicted containers may retain product residue; therefore, all hazard precautions given in this data sheet should be observed.

SECTION 8 - FIRE AND EXPLOSION HAZARD DATA

DOT HAZARD CLASSIFICATION: Combustible Class
FLASH POINT AND METHOD: >100°F by Setaflash

LOWER EXPLOSIVE LIMIT: 0.7% (approximate)
UPPER EXPLOSIVE LIMIT: 7% (approximate)

EXTINGUISHING MEDIA: Use foam, CO2, or dry chemical fire apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and may travel along the ground and be ignited by sources of heat, pilot lights, and other flames distant from the material handling point. Empty containers can also still provide a source of combustible vapors and ignite explosively.

FIRE FIGHTING PROCEDURES: Fire fighters should wear self-contained breathing apparatus and chemical-resistant, protective clothing. Spraying water directly into fire may cause material to float on surface and become rekindled. Water spray should be used to cool nearby containers and structures that are exposed to fire.

SECTION 9 - PHYSICAL DATA

APPEARANCE: Clear, colorless liquid
pH (APPROXIMATE): N/A

BOILING RANGE (APPROXIMATE): 300 - 360°F
VAPOR DENSITY: Heavier than air

WEIGHT LB. PER GALLON: 6.5
EVAPORATION RATE: Slower than water

PERCENT VOLATILE INCLUDING WATER: 100%
SOLUBILITY IN WATER: Negligible

SECTION 10 - DOCUMENTARY INFORMATION

PRODUCT NAME: BLANKET & ROLLER WASH
PRODUCT ID NUMBER: 5001-5

PREPARED BY: DAF
APPROVED BY: AFS
MSDS REVISION DATE: 03/09/2000

The information contained in this data sheet is, to the best of our knowledge, accurate but is not warranted. All materials may present unknown health hazards and should be used with caution. It is the user's responsibility to evaluate the information in a prudent manner and use it in a manner consistent with its purpose. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.
High VOC Cleaner Used at J.S. Paluch
# I - PRODUCT IDENTIFICATION

**MANUFACTURER'S NAME:** ALLIED PHOTO OFFSET SUPPLY CORP.  
**ADDRESS:** 2040 LEE STREET, HOLLYWOOD, FL 33020  
**PHONE NUMBER:** (305) 923-6844  
**EMERGENCY PHONE NUMBER:** 1-800-424-9300 CHEMTREC  
**TRADE NAME:** ALLIED HYDROWASH  
**SYNONYMS:** Blanket & Roller Cleaner for Lithography Presses

# IX - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Material or Component</th>
<th>% by Mass</th>
<th>Hazard Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic Petroleum Distillates CAS#64742-95-6 50% ACGIH (TWA-TLV)</td>
<td>100 ppm</td>
<td></td>
</tr>
<tr>
<td>(This ingredient contains: Xylene CAS#108-86-1 2-5%)</td>
<td>ACGIH (TWA-TLV) 100 ppm</td>
<td></td>
</tr>
<tr>
<td>Cusene CAS#98-82-8 1-4%</td>
<td>ACGIH (TWA-TLV) 50 ppm</td>
<td>SKIN Not Established</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene CAS#95-63-6 24-39%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aliphatic Petroleum Distillates CAS#64741-41-9 46% ACGIH (TWA-TLV) 100 ppm</td>
<td>These ingredients are subject to the reporting requirements of SARA 313 and 40 CFR 372.</td>
<td></td>
</tr>
</tbody>
</table>

None of the ingredients present in the product are identified as carcinogenic or potentially carcinogenic by ITP, IARC or ACGIH.  
All ingredients are listed in the U.S. TSCA inventory.
HEALTH HAZARD: 2  
4 - Deadly  
3 - Extreme Danger  
2 - Hazardous  
1 - Slightly Hazardous  
0 - Normal Material  

FIRE HAZARD: 2  
Flash Points:  
4 - Below 73°F  
3 - Below 100°F  
2 - Above 100°F (Not exceeding 200°F)  
1 - Above 200°F  
0 - Will Not Burn

REACTIVITY: 0  
4 - May Detonate  
3 - Shock and Heat May Detonate  
2 - Violent Chemical Change  
1 - Unstable if heated  
0 - Stable

PROTECTIVE EQUIPMENT: SC (Synthetic gloves, apron and splash goggles)

III - PHYSICAL DATA

Boiling Point @ 760 mm Hg: 307°F - 389°F
Melting Point: Liquid
Specific Gravity (H₂O=1): 0.827
Vapor Pressure: < 3 mm Hg at 20° (68°F)
Vapor Density (Air = 1): >1
Solubility in H₂O, X by Weight: Negligible
% Volatiles by Volume: 96%
Evaporation Rate (Butyl Acetate = 1): <1
Appearance and Odor: Clear, colorless liquid, hydrocarbon odor
pH: N/A
Volatile Organic Compounds (VOC's): 96% By Mass
   = 8.62 lb/gal.

IV - FIRE AND EXPLOSION DATA

Flash Point: 107°F TCC
Autoignition Temperature: Unknown
Flammable Limits In Air, X by Volume: Lower: Unknown
               Upper: Unknown
Extinguishing Media: Dry chemical, carbon dioxide or universal type foam.
Special Fire Fighting Procedures: Use self-contained breathing apparatus.
Unusual Fire & Explosion Hazard: Avoid spreading burning liquid
                                 with water used for cooling purposes.
V - HEALTH HAZARD INFORMATION

HEALTH HAZARD DATA

ROUTES OF EXPOSURE:

INHALATION: High concentrations of vapors or mists may cause irritation of nose and throat, and signs of central nervous system depression e.g. headaches, drowsiness, loss of coordination, possible unconsciousness.

SKIN CONTACT: May cause skin irritation, redness, burning and drying.

SKIN ABSORPTION: Possible absorption on prolonged contact.

EYE CONTACT: Severe irritation, tearing, redness and swelling.

INGESTION: Irritation of digestive tract, signs of central nervous system depression. Material is an aspiration hazard.

EFFECTS OF:

ACUTE OVEREXPOSURE: All of the above.

CHRONIC OVEREXPOSURE: Prolonged and repeated overexposure to solvents have been associated with permanent brain and central nervous system damage.

EMERGENCY FIRST AID PROCEDURES

EYES: Flush eyes for 15 minutes holding eyelids apart. Seek medical attention.

SKIN: Wash affected area with soap and water. Remove contaminated clothing and launder before reuse.

INHALATION: Remove to fresh air. If breathing difficulties occur, oxygen should be administered by trained personnel. If breathing stops begin artificial respiration. Seek immediate medical attention.

INGESTION: Do not induce vomiting. Material is an aspiration hazard and can enter lungs during swallowing or vomiting and cause lung damage. Seek immediate medical attention.

VI - REACTIVITY DATA

CONDITIONS CONTRIBUTING TO INSTABILITY: Stable

INCOMPATIBILITY: Strong acids or bases, oxidizing agents, selected amines.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, various hydrocarbons.

CONDITIONS CONTRIBUTING TO HAZARDOUS POLYMERIZATION: None.
VII - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED:
Ventilate area of spill. Extinguish all sources of ignition.
Prevent spill from spreading. Large spill, pump material into containers. For small spill, absorb into inert absorbent and shovel into containers. Do not flush with water.

NEUTRALIZING CHEMICALS: None needed

WASTE DISPOSAL METHOD: Dispose of in accordance with all applicable local, county, state and federal regulations.

SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS: Provide sufficient mechanical ventilation (general and/or local exhaust) to prevent exposure exceeding TLV and the irritating buildup of vapors.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT:

RESPIRATORY (Specify in Detail): Use NIOSH approved respirator when needed.

EYE: Chemical splash goggles.

GLOVES: Impermeable

OTHER CLOTHING AND EQUIPMENT: Safety apron, appropriate work clothes to prevent repeated skin contact; eyewash station, drench shower.

SPECIAL PRECAUTIONS

This is an industrial product and should be used by trained personnel only.

Containers of this material may be hazardous even when emptied, since containers retain product residue. Follow all hazard warnings given in this data sheet even after container is emptied.

Do not breathe vapors. Use with adequate ventilation.
SPECIAL PRECAUTIONS, CONT.

Avoid prolonged skin contact. Wash thoroughly after handling.

Do not get in eyes. Wear appropriate eye protection. Material will cause severe eye irritation.

Do not ingest.

Keep away from heat sparks and open flame.

STORAGE REQUIREMENTS

Keep container tightly closed when not in use.

Store in cool, dry place.

Store as COMBUSTIBLE MATERIAL.

Keep away from heat sparks and open flame.

SHIPPING REQUIREMENTS.

DOT Shipping Name: Combustible Liquid KUS
(Contains: Petroleum Distillates)

I.D. #: MA1953

The above information is believed to be correct as of the date hereof and is based on data supplied by our material suppliers; however, no warranty of merchantability, fitness for any use, or any other warranty is expressed or is to be implied regarding the accuracy of these data, the results to be obtained from the use of the material, or the hazards connected with each use. Since the information contained herein may be applied under conditions beyond our control and with which we may be unfamiliar, and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume responsibility for the results of its use. This information is furnished on the condition that the person receiving it shall make his own determination as to the suitability of the material for his particular purpose and on the condition that he assume risk of his use thereof.
High VOC Roller Cleaner Used at Nelson Nameplate
MATERIAL SAFETY DATA SHEETS

PRODUCT IDENTIFICATION

Product Name: HYDRO CLEAN
A Water-Activated Power Cleaner for Lithographic Presses

Generic Name: Water Miscible Solvent Blend

PPE: N/A

Flash Point: N/A

UN Number: UN-1263

Classification: Combustible Liquid, PG III

SCAGMD INFORMATION

The VOC for this product before adding water is:
86% by mass or 735 Grams/Liter or 6.33 Pounds/Gallon

VOC Composite Partial Pressure
(Vapor Pressure)
2.0 mm Hg @ 20 Deg. C

SECTION 1 - HAZARDOUS INGREDIENTS/EXPOSURE LIMITS

HAZARDOUS INGREDIENTS CAS NUMBERS TLV/TPEL UNITS AGENCY TYPE

MINERAL SPIRITS
Hydrocarbon Distillate, Light 8032-41-3

TWA

OSHA

ACGIH

MSHA

CAL OSHA

100 PPM
100 PPM
100 PPM
200 PPM
100 PPM

This is an industrial product and should only be used or handled by trained personnel.

(Comparable to Stoddard Solvent)
### SECTION 1 - CONTINUED - HAZARDOUS INGREDIENTS/EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>AROMATIC HYDROCARBON</th>
<th>CAS NUMBERS</th>
<th>TLV/TWI UNITS</th>
<th>AGENCY</th>
<th>TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>100 PPM</td>
<td>OSHA</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 PPM</td>
<td>ACGIH</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150 PPM</td>
<td>ACGIH</td>
<td>STEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>150 PPM</td>
<td>OSHA</td>
<td>STEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>200 PPM</td>
<td>CAL OSHA</td>
<td>EXCI</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 SKIN PPM</td>
<td>CAL OSHA</td>
<td>TWA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>300 SKIN PPM</td>
<td>CAL OSHA</td>
<td>CSL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>100 PPM</td>
<td>MSHA</td>
<td>TWA</td>
</tr>
</tbody>
</table>

1,3,5-Trimethylbenzene | 108-67-8 | No Exposure Limits Established |

1,2,4-Trimethylbenzene | 95-63-6 | No Exposure Limits Established |

Isopropylbenzene | 95-82-8 | 50 SKIN PPM | ACGIH | TWA |
|                   |         | 56 SKIN PPM | OSHA  | TWA  |

### SECTION 1A: This product contains the following chemicals subject to the reporting requirements of SARA 313 AND 40 CFR 372.66:

<table>
<thead>
<tr>
<th>Listed ingredients</th>
<th>CAS Numbers</th>
<th>Percent Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>2.20 %</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>11.9 %</td>
</tr>
<tr>
<td>Isopropylbenzene</td>
<td>95-82-8</td>
<td>1.66 %</td>
</tr>
</tbody>
</table>

### SECTION 1B - SARA SECTIONS 311/312 HAZARD RATINGS

This product is rated as a fire hazard under the reporting requirements of SARA 311 and 312. The health hazard category for this product under SARA Sections 311/312 reporting meets both immediate (acute) and delayed (chronic) definitions. Discharge to the environment including the sewer may be reportable under the regulations of CERCLA/DOE to the National Response Center (800) 424-8802. Protection of stratospheric ozone (pursuant to Section 611 of the Clean Air Act Amendments of 1990) per 40 CFE Part 82: This product does not contain nor was it directly manufactured with any Class I or Class II ozone-depleting substances.

### CALIFORNIA PROPOSITION 65 WARNING

This product contains detectable amounts of substances known to the State of California to cause cancer, birth defects, or other reproductive harm.
SECTION II - EMERGENCY AND FIRST AID PROCEDURES

**EMERGENCY**
Have a physician call Los Angeles Poison Information Center (24 hrs): 800-777-6473
Orange County Poison Center: 714-634-1583

EYE CONTACT:
Move victim away from exposure and into fresh air. If irritation or redness develops, flush eyes gently with clean water and seek medical attention. For direct contact, hold eyelids apart and flush the affected eye(s) with clean water for at least 15 minutes—seek medical attention.

SKIN CONTACT:
Immediately flush affected area(s) with large amounts of water while removing contaminated shoes, clothing, and constrictive jewelry. If skin surface is damaged, apply a clean dressing and seek immediate medical attention. If skin surface is not damaged, cleanse the affected area(s) thoroughly by washing with mild soap and water. If irritation or redness develops, seek immediate medical attention.

INHALATION (BREATHING):
Immediately move victim away from source of exposure and into fresh air. If respiratory symptoms or other symptoms of exposure develop, seek immediate medical attention. If victim is not breathing, immediately begin artificial respiration. If breathing difficulties develop, oxygen should be administered by qualified personnel. Seek immediate medical attention.

INGESTION (SWALLOWING):
***SEE EMERGENCY MEDICAL ATTENTION*** If victim is drowsy or unconscious, place on left side with head down, and do not give anything by mouth. ***DO NOT INDUCE VOMITING*** If vomiting occurs spontaneously, keep head below hips. Vomiting should only be induced under the direction of a physician or poison control center. Do not leave victim unattended.

SECTION III - HEALTH HAZARDS/ROUTES OF ENTRY

EYE CONTACT:
One or more components of this material is an eye irritant. Direct contact with the liquid or exposure to its vapors or mists may cause stinging, tearing, redness, and swelling.

SKIN CONTACT:
One or more components of this material may cause skin irritation. Prolonged or repeated skin contact may cause redness, burning, drying and cracking of the skin, and skin damage. Please use protective gloves.

SKIN ABSORPTION:
Skin contact may be harmful. Contact may result in skin absorption. This material may be toxic when absorbed through the skin. Persons with pre-existing skin disorders or sensitive skin may be more susceptible to the effects of this material.

INHALATION (BREATHING):
Do not breathe vapors; use adequate ventilation. This material has a low degree of toxicity by inhalation. Breathing high concentrations of vapors or mists may cause:
- Irritation of the nose and throat.
- Signs of nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, fatigue, and nausea).

Prolonged or repeated exposure to vapors or mists may cause:
- Liver and/or kidney damage.
- Respiratory symptoms associated with pre-existing lung disorders (e.g., asthma-like conditions) may be aggravated by exposure to this material.

Refer to Section I for proper Threshold Limit Values (TLV).
SECTION III - CONTINUED - HEALTH HAZARDS/ROUTES OF ENTRY

INGESTION (SWALLOWING):
Ingestion of this material may cause irritation of the digestive tract, nervous system depression (e.g., headache, drowsiness, dizziness, loss of coordination, and fatigue), nausea, vomiting, and diarrhea.

ASPIRATION HAZARD:
One or more components of this material can enter the lungs during swallowing or vomiting and cause lung inflammation, lung damage, or chemical pneumonitis.

TARGET ORGAN EFFECTS/DEVELOPMENTAL INFORMATION/CANCER INFORMATION:
Pre-existing heart, blood, eye, skin, kidney, liver, lung or respiratory, spleen, or testis disorders may be aggravated by exposure to this material. This material (or a component) has been shown to lower activity of certain immune system cells in experimental animals. Exposure to this material (or a component) has been found to cause kidney damage in male rats. Overexposure to this material (or a component) has been suggested as a cause to the following in laboratory animals: liver abnormalities, blood abnormalities, cataracts, cardiac sensitization, hearing damage, kidney damage. The significance of these animal studies to human health is uncertain. Overexposure to this material (or a component) has been suggested as a cause to the following in humans: liver abnormalities. This material (or a component) has been shown to cause birth defects in laboratory animal studies. Harm to the fetus occurred only at exposure levels that harmed the pregnant animal. The significance of these animal studies to human development is uncertain.

Based on available information, this material cannot be classified with regard to carcinogenicity. This material is not listed as a carcinogen by the International Agency for Research on Cancer, the National Toxicology Program, or the Occupational Safety and Health Administration.

WARNING:
Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage (sometimes called Solvent or Palmsers Syndrome). Intentional misuse by deliberately concentrating and inhaling the contents of this product may be harmful or fatal.

SECTION IV - SPECIAL PROTECTION INFORMATION

VENTILATION:
If current ventilation practices are not adequate to maintain airborne concentrations below established exposure limits (see Section I), additional ventilation or exhaust systems may be required. Where explosive mixtures may be present, electrical systems safe for such locations must be used.

RESPIRATORY PROTECTION:
The use of respiratory protection is advised when concentrations exceed the established exposure limits (see Section I). Depending on the airborne concentration, use a respirator or gas mask with approved cartridges and canisters (NIOSH approved, if available) or supplied air equipment.

PROTECTIVE GLOVES:
The use of gloves impermeable to the specific material handled is strongly advised to prevent skin contact and possible skin irritation and damage.

EYE PROTECTION:
Approved eye protection to safeguard against potential eye contact, irritation, or injury is strongly recommended.

OTHER PROTECTIVE EQUIPMENT:
It is suggested that a source of clean water be available in the work area for flushing eyes and skin. Special safety stations and equipment are available for this purpose. Impervious clothing should be worn as needed.
SECTION V - REACTIVITY DATA

STABILITY:
This product is stable.

INCOMPATIBILITY (MATERIALS TO AVOID):
This product forms combustible and/or explosive mixtures with air and/or oxygen. This product is incompatible with oxidizing agents, strong acids or bases, or selected amines.

HAZARDOUS POLYMERIZATION:
Hazardous polymerization will not occur.

SECTION VI - SPILL OR LEAK PROCEDURES

PRECAUTIONS IN CASE OF RELEASE OR SPILL:
Keep all sources of ignition and hot metal surfaces away from spill/release. Stay upwind and away from spill/release. Isolate hazard area and limit entry to emergency crew. Stop spill/release if it can be done without risk. Wear appropriate protective equipment including respiratory protection as conditions warrant (see Section IV). Prevent spilled material from entering sewers, storm drains, other unauthorized treatment drainage systems, and natural waterways. Dike for ahead of spill/release for later recovery or disposal. Spilled material may be absorbed into suitable absorbent material. Immediate cleanup of any spill/release is recommended. Notify appropriate federal, state, and local agencies. Discharge to the environment including the sewer may be reportable (under the regulations of CERCLA/DOT) to the National Response Center; (800) 424-8802.

WASTE DISPOSAL METHOD:
Product waste is considered hazardous and must be disposed of in accordance with local, county, state, and federal regulations.

SECTION VII - STORAGE AND SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:
Keep containers tightly closed. Keep containers cool, dry, and away from sources of ignition. Use and store this product with adequate ventilation. Avoid inhalation of vapors and personal contact with this product. Containers of this material may be hazardous when emptied. Since emptied containers retain product residue (vapor, liquid, or solid), all hazard precautions given in this MSDS must be observed. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose product containers to heat, flame, sparks, or other sources of ignition; they may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. Other containers should be disposed of in an environmentally safe manner and in accordance with government regulations. All five-gallon pails and larger containers must be grounded and/or bonded when transferring material. Hydrocarbon solvents are basically non-conductors of electricity and can become electrostatically charged during mixing, filtering, or pumping at high flow rates. If this charge reaches a sufficiently high level, sparks can form that may ignite the vapors of flammable and combustible liquids. To prevent "autoignition," any use of this product in an elevated temperature or pressure process should be thoroughly evaluated to establish and maintain safe operating conditions. All of the information contained in these pages applies to rags, sponges, or other materials that are used to hold this material.
SECTION VIII - FIRE AND EXPLOSION HAZARD DATA

<table>
<thead>
<tr>
<th>NFPA HAZARD CLASS</th>
<th>HAZARD RANKING</th>
<th>HMIS HAZARD CLASS</th>
</tr>
</thead>
<tbody>
<tr>
<td>HEALTH HAZARD</td>
<td>1</td>
<td>LEAST</td>
</tr>
<tr>
<td>FLAMMABILITY</td>
<td>2</td>
<td>SLEIGHT</td>
</tr>
<tr>
<td>REACTIVITY</td>
<td>2</td>
<td>MODERATE</td>
</tr>
<tr>
<td>OTHER</td>
<td>4</td>
<td>EXTREME</td>
</tr>
</tbody>
</table>

LOWER - Upper Explosive Limit (% Vol.): Unknown

EXTINGUISHING MEDIA:
Extinguished with dry chemical, CO₂, or a universal type foam.

FIRE AND EXPLOSION HAZARDS:
This material is combustible. This material readily gives off vapors that may travel long distances from their source by air currents or by ventilation equipment. These vapors may be ignited by heat, flame, spark, smoking, electric motors, or other sources of ignition far from their source. If container is not properly cooled, it may explode in the heat of a fire.

FIRE FIGHTING PROCEDURES:
Wear a SCBA with a full facepiece operated in the positive pressure demand mode with appropriate turnout gear and chemical resistant personal protective equipment. Water spray may be useful in minimizing vapors and cooling containers exposed to heat and flame. Avoid spreading burning liquid with water used for cooling purposes. Vapors are heavier than air and will collect in low areas. Vapors may travel by air currents and ignite at a distance from container or spill.

SECTION IX - PHYSICAL DATA

APPROXIMATE BOILING POINT (Initial): 307 - 359 Degrees F.

RELATIVE EVAPORATION RATES (n-Butyl Acetate = 1):
VAPOR PRESSURE: 26 mm Hg @ 20 Degrees C
VAPOR DENSITY (Air = 1): 4.3 (Heavier Than Air)
SPECIFIC GRAVITY: 0.827
SOLUBILITY IN WATER: Slight
ODOR: Characteristic Solvent Odor
APPEARANCE: Clear, light-colored, mobile liquid

Disclaimer of Expressed and Implied Warranties
The information in this document has been carefully prepared and is believed to be correct as of the date issued. Because Star Products, Dist'rex, does not make its products, qualified experts from the chemical suppliers and manufacturers to Star Products, Dist'rex, furnished the information and opinions expressed herein. No warranty of merchantability, fitness for any particular purpose, or any other warranty is expressed or implied regarding the accuracy or completeness of this information, the results obtained from the use of this information and the product, or the safety of this product and the hazards related to its use. This information and the product are furnished on the condition that the person(s) receiving them shall make their own determination as to the suitability of the product for their particular purpose and on the condition that they assume the risk of their use thereof.

Please study this Material Safety Data Sheet carefully and become aware of the information it contains. There are specific federal laws on the responsibilities of purchasers and users of chemicals.
High VOC Blanket Cleaner Used at Nelson Nameplate
LOW VOC 1.68 BLANKET WASH

A. G. Layne, Inc.
MATERIAL SAFETY DATA SHEET

Date Prepared: August 10, 1996

Material Safety Data Sheet

SECTION I - COMPANY IDENTIFICATION

Manufacturer: A. G. Layne, Inc.
4578 Brazil Street
Los Angeles, California 90039

Telephone Numbers:
Office (213) 245-2345
24 Hour Emergency Contact: Chemtrec (800) 424-9300

SECTION II - HAZARDOUS INGREDIENTS

OSHA Hazardous Components (29 CFR 1910.1200) EXPOSURE LIMITS: 8 HR. TWA

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS#</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>750 ppm</td>
<td>750 ppm</td>
</tr>
<tr>
<td>Solvent Naphtha, light aliphatic</td>
<td>64742-89-8</td>
<td>300 ppm*</td>
<td>300 ppm*</td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>100 ppm</td>
<td>100 ppm</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>25 ppm</td>
<td>25 ppm</td>
</tr>
</tbody>
</table>

*recommend exposure limits of VM&P Naphtha as guideline

SECTION III - HAZARDS IDENTIFICATIONS

EMERGENCY OVERVIEW: DANGER! High exposures can cause nausea, vomiting, narcosis, and central nervous system (CNS) depression. Liquid may irritate skin and eyes. Mist may irritate mucous membranes and respiratory system.

POTENTIAL HEALTH EFFECTS:

INHALATION: Inhalation of high vapor concentrations may cause central nervous system (CNS) depression. Symptoms of CNS depression include: giddiness, headache, dizziness, and nausea; in extreme cases unconsciousness and death may occur. Aspiration of the liquid must be avoided as even small quantities may result in aspiration pneumonitis.

EYE CONTACT: Liquid severely irritates the eyes. High vapor concentrations irritate the eyes. Preexisting eye disorders may be aggravated by exposure.

SKIN CONTACT: Liquid irritates the skin. Prolonged contact can cause defatting and drying of the skin. Preexisting skin disorders may be aggravated by exposure.
LOW VOC 1.68 BLANKET WASH

INGESTION: Ingestion may cause vomiting and central nervous system (CNS) depression. Symptoms of CNS depression include: giddiness, headache, dizziness, and nausea; in extreme cases unconsciousness and death may occur.

CHRONIC: None known.

CARCINOGENICITY: LISTED IN NTP? No IARC? No OSHA Regulated? No

SECTION IV - FIRST AID MEASURES

INHALATION: Remove to fresh air. Supply oxygen if breathing is difficult. If not breathing, apply artificial respiration. Get medical attention.

EYE CONTACT: Flush with large amounts of running water for 15 minutes, while holding eyelids open. Get medical attention.

SKIN CONTACT: Remove contaminated clothing or shoes. Flush skin with water. Follow by washing with soap and water. Seek medical advice if irritation develops.

INGESTION: Do NOT induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into lungs. Get medical attention immediately.

SECTION V - FIRE FIGHTING MEASURES

Flashpoint (Method): 0°F (Flashpoint of lowest flammable component)
Flammable Limits: Lower: NE Upper: NE
Autoignition Temperature: NE

GENERAL HAZARD: DANGER! Extremely flammable. Clear area of unprotected personnel and isolate. Vapors are denser than air, flashback along vapor trail may occur. Vapor may explode if ignited in enclosed space. Product components will float and can be reignited on surface of water.

FIRE FIGHTING INSTRUCTIONS: Approach fire from upwind side. Avoid breathing smoke, fumes, mist, or vapors. Firefighters wear protective clothing, and self contained breathing apparatus.

EXTINGUISHING MEDIA: Use extinguishing media such as foam, dry chemical, carbon dioxide, or water fog. Water in straight hose stream may scatter product and spread the fire. Cool containers exposed to heat with water to prevent vapor pressure buildup leading to container rupture.

HAZARDOUS COMBUSTION PRODUCTS: Acid smoke, irritating fumes, carbon monoxide, carbon dioxide and unidentified organic compounds

SECTION VI - ACCIDENTAL RELEASE MEASURES

DANGER: Extremely flammable. Keep unnecessary and unprotected people away. Isolate hazard area. Eliminate all ignition sources. Handling equipment should be grounded to prevent sparks. Stay upwind.

LARGE SPILL: Wear appropriate respirator and protective clothing. Shut off source of leak if safe to do so. Dike and contain. Water fog may be useful in suppressing vapor cloud. Keep spills and cleaning runoff out of municipal sewers and open waterways. Collect free product with vacuum truck or pump to storage container. Absorb residue with inert material, then place waste in a chemical waste container for disposal. Flush area with water to remove trace residue; dispose of flush solution as above.
LOW VOC 1.68 BLANKET WASH

SMALL SPILL: Absorb product with inert material, then place waste in a chemical waste container for disposal. Seal waste container for proper disposal.

SECTION VII - HANDLING AND STORAGE

Keep liquid away from heat, sparks, and flame. Static electricity may accumulate and create a fire hazard. Ground fixed equipment. Bond and ground transfer containers and equipment.

Use with adequate ventilation. Prevent vapor accumulation. Keep containers closed when not in use. Containers, even emptied, will retain product residue and can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers. Do not pressurize containers to empty them.

Avoid prolonged or repeated breathing of mist or vapors. Do not get into eyes or on skin. Do not swallow. Wash hands thoroughly after handling material and before eating, drinking, smoking, or using restroom facilities.

Store in a cool, dry place away from oxidizers and oxidizing agents.

SECTION VIII - EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Explosion-proof ventilation is recommended.

PERSONAL PROTECTION: Not normally needed under proper conditions of use and storage. If exposure may or does exceed occupational exposure limits use a NIOSH approved respirator.

PROTECTIVE CLOTHING: Avoid contact with eyes; use chemical goggles to protect eyes if contact is likely. Wear chemical resistant gloves and other clothing as required to minimize contact. Air dry contaminated clothing in well-ventilated space, then launder before reusing.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
<td>160 mm Hg @ 100°F (est.)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.8</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>NE</td>
</tr>
<tr>
<td>pH</td>
<td>NE</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>NE</td>
</tr>
<tr>
<td>Appearance &amp; Odor</td>
<td>Clear, colorless liquid with hydrocarbon odor</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>&gt;2</td>
</tr>
<tr>
<td>Vapor Density (Air=1)</td>
<td>(n-Buty1 Acetate=1): NE</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>NE</td>
</tr>
<tr>
<td>VOC:</td>
<td>1.6 lb./gal. (calc.)</td>
</tr>
</tbody>
</table>

SECTION X - STABILITY AND REACTIVITY

GENERAL: Stable

INCOMPATIBLE MATERIALS: Strong oxidizing agents.

CONDITIONS TO AVOID: Avoid heat, sparks and flame. Avoid vapor accumulation.

Hazardous Polymerization: Will not occur.
### LOW VOC 1.68 BLANKET WASH

#### SECTION XI - TOXICOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS#</th>
<th>TDI-L</th>
<th>TDI-O</th>
<th>LDI-S</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>2857 mg/kg (oral - man)</td>
<td>10 mg/m²/6h (inhalation - man)</td>
<td></td>
</tr>
<tr>
<td>Solvent Naphtha, light aliphatic</td>
<td>64742-89-8</td>
<td>&gt;8 mg/kg (oral - rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>4.3 g/kg (oral - rat)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Solvent naphtha, light aromatic</td>
<td>64742-95-6</td>
<td>4.7 g/kg (oral - rat)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### SECTION XII - ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS#</th>
<th>RfC</th>
<th>RfD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>14,250 ppm/24 h/basinfish/larval/fresh water</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>13,000 ppm/48 h/mosquito fish/TL/Aurisid water</td>
<td></td>
</tr>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
<td>22 ppm/96 h/bluegill/TL/fresh water Solvent</td>
<td></td>
</tr>
</tbody>
</table>

#### SECTION XIII - DISPOSAL CONSIDERATIONS

Classification and documentation is required before disposing of this product. If the product becomes a waste material, it may be an ignitable hazardous waste.

Follow all local, state, and federal regulations regarding proper disposal.

#### SECTION XIV - TRANSPORTATION INFORMATION

| PROPER SHIPPING NAME: Flammable Liquids, n.o.s., (Acetone, Petroleum Distillates), 3, UN1993, PG II |
| HAZARD CLASS: | 3 |
| IDENTIFICATION NUMBER: | UN1993 |
| DOT Emergency Guide #: | 128 |
| Reportable Quantity (RQ): | 5000 lb. acetone |

#### SECTION XV - REGULATORY INFORMATION

**TSCA (Toxic Substance Control Act):**
The components of this product are listed on the TSCA Inventory.

**CERCLA (Comprehensive Environmental Response, Compensation and Liability Act):**
Reportable quantity from release or spill: 5000 lb. acetone

**CWA (Clean Water Act, Section 311):**
Components of this product are considered oils. Spills into or leading into surface waters that cause a sheen must be reported to the National Response Center, (800) 424-8802

**SARA TITLE III (Superfund Amendments and Reauthorization Act):**
- 311/312 Hazard Categories: acute, chronic, ignitable
- 313 Reportable Ingredients: Xylene (CAS# 1330-20-7) - 1.2%
- 1,2,4-Trimethylbenzene (CAS# 95-63-6) - 2%

**STATE REQUIREMENTS:**
- Benzene (CAS# 71-43-2), Cumene (CAS# 98-82-8), Toluene (CAS 108-88-3), Acetone (CAS# 67-64-1), and Xylene (CAS# 1330-20-7) are regulated by CA, CT, FL, IL, LA, MA, ME, MN, NJ, PA, and RI. Other states may also have special requirements. This product contains less than 10 ppm benzene and less than 0.3% cumene.
- 1,2,4-trimethylbenzene (CAS# 95-63-6) is regulated by CA, MA, MN, PA, and NJ. Other states may also have special requirements.
LOW VOC 1.68 BLANKET WASH

Other components of this product may be also be subject to state regulations. For details on specific state requirements, contact the appropriate agency in your state.

CALIF. PROP. 65: This product contains the following chemicals known to the State of California to cause cancer, birth defects, and/or reproductive harm: Benzene.

SECTION XVI - OTHER INFORMATION

PREPARED BY: TALEM, Inc. - Engineering & Consulting Services (817) 335 - 1186
INFORMATION SUPPLIED BY: A. G. Layne, Inc.
PREPARATION DATE: 08/96
REvised 9/96: Section XIV - Proper Shipping Name

FOOTNOTES:
NA - Not Applicable NE - Data Not Established CS - Cancer Suspect Agent OX - Oxidizer ND - No Data Cor - Corrosive
CALC - Calculated EST - Estimated STEL - Short Term Exposure Limit TLV - Threshold Limit Value
PEL - Permissible Exposure Limit TWA - Time Weighted Average, 8 hours

THE INFORMATION RELATES TO THIS SPECIFIC MATERIAL. IT MAY NOT BE VALID FOR THIS MATERIAL IF USED IN COMBINATION WITH ANY OTHER MATERIALS OR IN ANY PROCESS. IT IS THE USER'S RESPONSIBILITY TO SATISFY ONESELF AS TO THE SUITABILITY AND COMPLETENESS OF THIS INFORMATION FOR HIS OWN PARTICULAR USE. NEITHER THE SELLER NOR PREPARE MAKES ANY WARRANTIES, EXPRESS OR IMPLIED, CONCERNING THE INFORMATION PRESENTED.
High VOC Cleaner Used at PIP Printing
MATERIAL SAFETY DATA SHEET

Date Revised: November 18, 2001

Hazard Rating

Acute Health Rating: 2
Respiratory Rating: 1

Product Name: M.C. A.I. P.H.O
Chemical Name: A proprietary blend containing ethylalcohol, aromatic petroleum distillates, glycol ethers, solvents, and other diluents

I. PHYSICAL DATA

Boiling Point (20°C): 55°F
Freezing Point: N/A
Specific Gravity (D20°C): 0.88
Vapor Pressure @ 20°C: 3.1 mm Hg
Vapor Density (Air=1): 1.0
Solvency in H2O: Not Soluble
% Volatiles by Volume: 99
Evaporation Rate (Relative Acetone=1): 3
Appearance and Odor: Clear liquid with mild odor
V.O.C.: (Volatile Organic Compounds): 6.5

II. HAZARDOUS INGREDIENTS / COMPOSITION

A. Hazardous Property
   - Acute Toxicity: No. 74.72-84-7
   - Acute Toxicity: CAS No. 100

B. Common Hazardous Elements
   - Arsenic (III) Oxide: 100
   - Arsenic (V) Oxide: 25
   - Arsenic (VII) Oxide: 50

* A combination of complex hydrocarbons: exact contribution will vary

III. ACUTE TOXICITY DATA

Mat. NO. ORAL LD50 Dermal LD50 Inhalation Data
A. Acute Acute Acute
   - 25 mg/kg (rat) 4 mg/kg (mouse) 170 ppm VMD (rat)
   - 6 mg/kg (rat) 2 mg/kg (mouse) 67 ppm VMD (rat)
   - 2.1 mg/kg 1.1 mg/kg (male) 232 ppm VMD (male)

The health effects listed below are consistent with requirements under the OSHA Hazard Communications Standard 29 CFR 1910.1200

A. Skin Contact: Liquid is irritating to the eyes under normal vapor concentrations. This material may cause eye irritation (biurting, tearing, and swelling)
   - skin contact: Liquid is slightly irritating to the skin. Prolonged or repeated liquid contact can result in drying and/or damage of the skin, which may result in skin irritation and dermatitis
   - Other symptoms of toxicity as described in effects of ingestion
   - Ingestion: Vomiting may be induced by the eyes, nose, throat, and respiratory tract. High vapor concentrations may cause CNS depression, nausea, vomiting, weakness, and dizziness
   - Hypothermia: Ingestion of product may cause vomiting. Absorption (ingestion) of vapor into the lung or vessels may be manifested by eye, nose, and nasal irritation. Prolonged exposure may cause CNS depression, headache, nausea, vomiting, and dizziness
   - Stimulation of the CNS: Irritation as noted above
   - Respiratory depression may be evidenced by nausea, headache, dizziness and nausea. Aspiration precautions may be evidenced by coughing, phlegm, breathing and nonspecific chest symptoms

B. Precautionary Measures:
   - Pre-existing eye, skin, and respiratory disorders may be aggravated by exposure to this product

C. Personal Protective Equipment:
   - NIOSH A1P2, N95, or equivalently rated respirator
   - Eye Protection: Safety glasses with side shields
   - Skin Protection: If skin contact is suspected, remove contaminated clothing and wash with soap and water

D. Spill Control:
   - Spill Cleanup: The spill should be contained to prevent spillage or overflow
   - Spill Cleanup: Spill cleanup should be performed as soon as possible

E. Stabilization/Disposal:
   - Spill cleanup should be performed as soon as possible
   - Spill cleanup should be performed as soon as possible

F. Containment:
   - Spill cleanup should be performed as soon as possible

G. Personal Protection:
   - Personal protection should be performed as soon as possible

H. Disposal of Wastes:
   - Disposal of wastes should be performed as soon as possible

II. OCCIDENTAL EXPOSURE LIMITS

A. F.L. (HD): 15 ppm 100 ppm
   - F.L. (LDL): 25 ppm 25 ppm
   - F.L. N.A. N.A

* Limited information provided for the Triethylene glycol component only; no data available for the mixture as a whole

VI. EMERGENCY AND FIRST AID PROCEDURES

A. Eye Contact: Immediately flush eyes with plenty of water for 15 minutes while holding eyelids open. Do not let victim rub eyes open
   - First Aid Measures: Get medical attention

B. Skin Contact: Remove contaminated clothing and shoes. Wash skin with soap and water. Follow by washing with soap and water. If irritation occurs, get medical attention
   - First Aid Measures: Remove contaminated clothing and shoes. Wash skin with soap and water. If irritation occurs, get medical attention

C. Inhalation: Remove victim to fresh air and provide oxygen if breathing is difficult. Give artificial respiration if not breathing. Get medical attention immediately
   - First Aid Measures: Remove victim to fresh air and provide oxygen if breathing is difficult. Get medical attention immediately

D. Ingestion: Drink plenty of water if suspected
   - First Aid Measures: Drink plenty of water if suspected

VI. FIRE AND EXPLOSION HAZARDS

A. Flash Point and Method: 105°F (OCC)
   - Flash Point Method: Test: Test: Test

B. Explosion Limits:
   - LEL (Lower Explosive Limit): UEL (Upper Explosive Limit)
   - LEL (Lower Explosive Limit) = UEL (Upper Explosive Limit)

C. Stability:
   - Stability: Stable

D. Hazardous Decomposition Products:
   - Decomposition Products: Carbon dioxide, carbon monoxide, and unidentified solid products

E. Reactivity:
   - Reactivity: Stable
IX. EMPLOYEE PROTECTION


B. Protective Clothing: Avoid contact with eyes. Wear safety glasses or goggles as appropriate. Avoid prolonged or repeated contact with skin. Wear chemical-resistant gloves (butyl rubber) and other clothing to minimize contact.

C. Additional Protective Measures/Equipment: Use explosion-proof ventilation as required to control vapor concentrations. Clean contaminated clothing before washing.

X. ENVIRONMENTAL PROTECTION

A. Spill or Leak procedures: CAUTION - COMBUSTIBLE - LARGES SPILLS - eliminate potential sources of ignition. Wear appropriate respiratory and other protective clothing. Use offsource of leak only if safe to do so. Discard damaged, unresponsive with vacuum tank or pump to storage or waste vessel. Soak up residue with absorbent material such as clay, sand or other suitable material, place in non-leaking containers and seal tightly for proper disposal. Fiext areas with water to remove remaining, dispose of flammable solvents, and water. SMALL SPILLS - Take up with an absorbent material and place in non-leaking containers for proper disposal.

B. Waste Disposal: Under EPA-RCA (40 CFR 261.21). If this product becomes a waste material, it would be subject to hazardous waste number 5001. Refer to the latest EPA or state regulations regarding proper disposal.

C. Environmental Hazards: Under EPA-CWA, this product is classified as an oil under section 301. Spills into or leaking to surface waters that cause a shear must be reported to the National Response Center, 1-800-424-8802. EPA-Comprehensive Environmental Response, Compensation and Liability Act. Under EPA-CERCLA (Superfund), release to air, land or water may be reportable to the National Response Center, 1-800-424-8802 if circumstances surrounding the release and cleanup determine reportability.

XI. SPECIAL PRECAUTIONS

A. Keep liquid and vapor away from heat, sparks and flame. Keep container closed when not in use. Use with adequate ventilation.

B. Containers, even empty, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

C. Static electricity may accumulate and create a fire hazard. Ground good equipment. Bond and ground transfer equipment and containers.
High VOC Blanket Wash Used at Presslink
**LITHO-CHEM, INC.**

9441 SANTA FE SPRINGS ROAD, SANTA FE SPRINGS, CA 90670

TEL 562.946.9557  FAX 562.946.2333

**LC-1700**

**MATERIAL SAFETY DATA SHEET**

**DATE PREPARED** August 2003

**FOR EMERGENCY 800-424-5300**

**PRODUCT** PRESS WASH

**CODE** LC-1700

**CHEMICAL FAMILY** Proprietary blend of aliphatic hydrocarbon solvents with ketone

**DOT CLASSIFICATION** Paint related materials, UN1265, II

<table>
<thead>
<tr>
<th>SECTION II - HAZARDOUS INGREDIENTS</th>
<th>%</th>
<th>TLV</th>
<th>CAS NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-propanone</td>
<td>1-10</td>
<td>765</td>
<td>67-64-1</td>
</tr>
<tr>
<td>Aliphatic hydrocarbon</td>
<td>&gt;40</td>
<td>300</td>
<td>847-42-89-8</td>
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<table>
<thead>
<tr>
<th>SECTION III - PHYSICAL PROPERTIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point: 131°F (minimum boiling compound)</td>
</tr>
<tr>
<td>Partial Pressure (in Hg, 60°F): 69.1 (22.3 calculated per ADRD Rule 1711)</td>
</tr>
<tr>
<td>Density (L/g): 0.6</td>
</tr>
<tr>
<td>Specific Gravity: 0.72</td>
</tr>
<tr>
<td>Solubility in Water: Applicable</td>
</tr>
<tr>
<td>Appearance and Odor: Clear, lavender liquid with a mild solvent odor</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOC): 3.5 (g/m³) EPA Method 24</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SECTION IV - FIRE AND EXPLOSION HAZARDS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (TCC): FF</td>
</tr>
<tr>
<td>Explosive Limits in Air (% by Volume): LL=1.2% UL=12.8%</td>
</tr>
<tr>
<td>Extinguishing Media: Alcohol resistant foam, carbon dioxide, dry chemical</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures: Use self-contained breathing apparatus and protective clothing</td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazard: Material is highly volatile. Vapors may travel at ground level and be ignited by pilot lights, sparks, heaters, electrical motors, etc.</td>
</tr>
</tbody>
</table>
SECTION V - HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL
Not established

THRESHOLD VALUE
Not established

EFFECTS OF OVEREXPOSURE

EYES: Exposure to liquid or vapor causes eye irritation. Symptoms may include stinging, tearing, redness and swelling.

SKIN: Exposure may cause mild skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying, cracking and skin burns. Pre-existing skin disorders may be aggravated.

COUNTRY: Excessive exposure may cause skin reaction. Symptoms may include itching and redness. Pre-existing skin disorders may be aggravated.

OTHER: Exposure to liquid or vapor can cause respiratory tract irritation.

SKIN: Exposure may cause mild skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying, cracking and skin burns. Pre-existing skin disorders may be aggravated by exposure to this material. Absorption is possible but harmful effects are not expected from this route of exposure under normal conditions of handling and use.

SLEET: Exposure to vapors or mist is possible. Short-term irritation toxicity is low. Breathing small amounts during normal handling is not likely to cause harmful effects; breathing large amounts may be harmful. Symptoms are more likely seen at all concentrations exceeding the recommended exposure limits. Symptoms of exposure may include:
- Irritation of nose, throat, respiratory tract
- Pre-existing lung disorders, e.g. asthma-like conditions, may be aggravated by exposure to this material resulting in cough, central nervous system depression (dizziness, weakness, drowsiness, fatigue, nausea, headache, unconsciousness) and other CV/re effects (coma).

SWALLOWING: Single dose oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Symptoms may include:
- Throat irritation, gastrointestinal irritation (nausea, vomiting, diarrhea), central nervous system depression (dizziness, weakness, drowsiness, fatigue, nausea, headache, unconsciousness), high blood sugar, coma. This material can enter the lungs during swallowing or vomiting and cause lung inflammation and/or damage.

FIRST AIDE: If on skin: Remove contaminated clothing, wash exposed area with soap and water.
- If symptoms persist, seek medical attention. Launder clothing before reuse.

If in eyes: If symptoms develop, move individual away from exposure and into fresh air. Flush eyes with water for at least 15 minutes while holding eyes apart. If symptoms persist, seek medical attention.

If swallowed: DO NOT INDUCE VOMITING. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with head down. Seek medical attention. If possible, do not leave individual unattended.

If inhaled: If symptoms develop, immediately move individual away from exposure and into fresh air. Seek medical attention. Keep individual warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

**NOTE TO PHYSICIAN:** This material (or a component) has produced hyperkalemia and hypokalemia following ingestion.

PRIMARY ROUTES OF ENTRY: Inhalation, skin absorption, skin contact, eye contact.

EFFECTS OF CHRONIC EXPOSURE: This material (or a component) shortens the time of onset or worsens the liver and kidney damage induced by other chemicals. This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies. Tumors in the fetus occur at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals and may aggravate pre-existing disorders of these organs in humans: mild, reversible liver effects and mild, reversible kidney effects.

SECTION VI - REACTIVITY DATA

STABILITY: Stable under normal conditions of storage and handling.

INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizing agents and strong acids.

HAZARDOUS POLYMERIZATION: Cannot occur.
SECTION VII. SPILL OR LEAK PROCEDURE

STEP TO BE TAKEN IN CASE OF RELEASE OR SPILL

Small spill: Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to hood

Large spill: Eliminate all ignition sources (flames, sparks, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent spill from entering drains, sewers, streams, or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to approved containers for disposal.

WASTE DISPOSAL METHOD

Small spill: Dispose of in accordance with all local, state, and federal regulations

Large spill: Dispose of in accordance with all local, state, and federal regulations.

SECTION VIII. PROTECTIVE EQUIPMENT TO BE USED

RESPIRATION PROTECTION: If workplace concentration of product (or a component) is exceeded (see Section II. A), a NIOSH/MSHA air-supplied respirator is advised. In absence of proper personal protective equipment, OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

VENTILATION: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure levels below TLVs (see Section II.) or TLV below level of overexposure (from known, suspected or apparent adverse effects).

PROTECTIVE CLOTHES: Wear resistant gloves (consult safety equipment supplier).

EYE PROTECTION: Chemical splash goggles in compliance with OSHA regulations are advised. However, OSHA regulations also permit other types of safety glasses (consult safety equipment supplier).

OTHER PROTECTIVE EQUIPMENT: To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

SECTION IX. SPECIAL PRECAUTIONS OR OTHER COMMENTS

Containers of this material may be hazardous when emptied since empty containers retain product residues (vapor, liquid and/or solute). All hazard precautions given in this sheet must be observed.

WARNING: Sudden release of hot organic vapors or mists from process or equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product at elevated process temperatures should be thoroughly evaluated to establish and maintain safe operating conditions.

THE INFORMATION ACCUMULATED HEREBIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF USE THAT THE INFORMATION IS CURRENT, APPLICABLE AND SUITABLE TO THEIR CIRCUMSTANCES.
High VOC Roller Wash Step 1 Cleaner Used at Presslink
LITHO-CHEM, INC.
9441 SANTA FE SPRINGS ROAD, SANTA FE SPRINGS, CA 90670
TEL: 562.946.5537 FAX 562.946.2333

AQ 1301

MATERIAL SAFETY DATA SHEET

DATE PREPARED: OCTOBER 23, 2002
FOR EMERGENCY: 562.946.5537

SECTION I - IDENTIFICATION

PRODUCT ROLLER WASH NO. 1
CODE AQ 1301
CHEMICAL FAMILY Aqueous emulsion of aliphatic and aromatic solvents with glycol ether and non-hazardous proprietary ingredients

DOT CLASSIFICATION Combustible liquid n.o.s. (naphtha) NA1993.18

SECTION II - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th></th>
<th>%</th>
<th>TLV</th>
<th>GAS NO.</th>
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</thead>
<tbody>
<tr>
<td>Aliphatic Hydrocarbon</td>
<td>30-60</td>
<td>275</td>
<td>8069-20-4</td>
</tr>
<tr>
<td>Aromatic Hydrocarbon</td>
<td>10-30</td>
<td>100</td>
<td>84742-95-6</td>
</tr>
<tr>
<td>Glycol ether</td>
<td>1-10</td>
<td>20</td>
<td>111-76-2</td>
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SECTION III - PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>259°F</td>
</tr>
<tr>
<td>Partial Pressure (mmHg @ 20°C)</td>
<td>9.5 (17 Calculated as per SCAQMD rule 1171)</td>
</tr>
<tr>
<td>Density (lb/gal)</td>
<td>7.3</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.84</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Appreciable</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>Translucent amber liquid with a mild solvent odor</td>
</tr>
<tr>
<td>Volatile Organic Compounds (VOC)</td>
<td>47 lb/gal (254 g/m³)</td>
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SECTION IV - FIRE AND EXPLOSION HAZARDS

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Flash Point (TCC)</td>
<td>120°F</td>
</tr>
<tr>
<td>Explosive Limits in Air (%)</td>
<td>LEL=0.7% UEL=10.8%</td>
</tr>
<tr>
<td>Extinguishing Media</td>
<td>Alcohol foam, carbon dioxide, dry chemical</td>
</tr>
<tr>
<td>Special Fire Fighting Procedures</td>
<td>Use self-contained breathing apparatus and protective clothing</td>
</tr>
<tr>
<td>Unusual Fire and Explosion Hazard</td>
<td>Containers exposed to intense heat should be cooled with water spray</td>
</tr>
</tbody>
</table>
SECTION V - HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: Not Established
THRESHOLD VALUE: Not Established

EFFECTS OF OVEREXPOSURE:

EYES: Exposure to liquid or vapor causes eye irritation. Symptoms may include stinging, tearing, redness and swelling.

SKIN: Exposure may cause mild skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, swelling, cracking and dryness. Pre-existing skin disorders may be aggravated by exposure to this material. Absorption is possible but harmful effects are not expected from this route of exposure under normal conditions of handling and use.

BREATHING: Exposure to vapors or mist is possible. Short-term inhalation toxicity is low. Breathing small amounts during normal handling is not likely to cause harmful effects; breathing large amounts may be harmful. Symptoms are more typically seen at air concentrations exceeding the recommended exposure limits. Symptoms of exposure may include:
- Irritation of nose, throat, respiratory tract
- Pre-existing lung disorders, e.g., asthma-like conditions, may be aggravated by exposure to this material resulting in cough, central nervous system (CNS) depression (dizziness, weakness, drowsiness, fatigue, nausea, headache, unconsciousness) and other CNS effects (coma).

SWALLOWING: Single dose oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Symptoms may include:
- Inflammation of nose, respiratory tract
- Pre-existing lung disorders, e.g., asthma-like conditions, may be aggravated by exposure to this material resulting in cough, central nervous system (CNS) depression (dizziness, weakness, drowsiness, fatigue, nausea, headache, unconsciousness), high blood sugar, coma. This material can enter the lungs during swallowing or vomiting and cause lung inflammation and/or damage.

FIRST AID:
- If on skin: Remove contaminated clothing, wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before re-use.
- If in eyes: If symptoms develop, move individual away from exposure and into fresh air. Flush eyes with water for at least 15 minutes while holding eyelids apart. If symptoms persist, seek medical attention.
- If swallowed: DO NOT INDuce VOMITing. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with head down. Seek medical attention. If possible, do not induce vomiting.
- If breathed: If symptoms develop, immediately move individual away from exposure and into fresh air. Seek medical attention. Keep individual warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

**NOTE TO PHYSICIAN**
This material (or a component) has produced hypoglycemia and ketosis following substantial ingestion.

PRIMARY ROUTES OF ENTRY: Inhalation, skin absorption, skin contact, eye contact.
EFFECTS OF CHRONIC EXPOSURE: This material (or a component) shortens the time of onset or worsens the liver and kidney damaged induced by other chemicals. This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies; harm to the fetus occurs at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals and may aggravate pre-existing disorders if these orgams in humans: mild, reversible liver effects and mild, reversible kidney effects.

STABILITY: Stable under normal conditions of storage and handling.
INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizing agents and strong acids.
HAZARDOUS POLYMERIZATION: Cannot occur.
SECTION VII - SPILL OR LEAK PROCEDURE

STEPS TO BE TAKEN IN CASE OF RELEASE OR SPILL

Small spill: Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to hood.

Large spill: Eliminate all ignition sources (fires, flames, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent spill from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Absorb uncontrollable product. Transfer contaminated absorbent, soil and other materials to approved containers for disposal.

WASTE DISPOSAL METHOD

Small spill: Dispose of in accordance with all local, state and federal regulations.

Large spill: Dispose of in accordance with all local, state and federal regulations.

SECTION VIII - PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION If workplace exposure limit(s) of product (or a component) is exceeded (see Section II), a NIOSH/MSHA air supplied respirator is advised. In absence of proper environmental control, OSHA regulation also permits other NIOSH/MSHA respirators (negative pressure type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

VENTILATION Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure levels below TLV's (see Section II) or to below level of overexposure (from known, suspected or apparent adverse effects).

PROTECTIVE CLOTHES Wear resistant gloves (consult safety equipment supplier).

EYE PROTECTION Chemical splash goggles in compliance with OSHA regulations are advised. However, OSHA regulations also permit other types of safety glasses (consult safety equipment supplier).

OTHER PROTECTIVE EQUIPMENT To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

SECTION IX - SPECIAL PRECAUTIONS OR OTHER COMMENTS

Containers of this material may be hazardous when emplaced since emplaced containers retain product residues (vapor, liquid and/solid). All hazard precautions given in this sheet must be observed.

WARNING!!! sudden release of hot organic vapors or mists from process or equipment operating at elevated temperatures and pressures, or sudden ingress of air into vacuum equipment may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product at elevated process temperatures should be thoroughly evaluated to establish and maintain safe operating conditions.

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High VOC Roller Wash Step 2 Cleaner Used at Presslink
**LITHO-CHEM, INC.**  
5441 SANTA FE SPRINGS ROAD, SANTA FE SPRINGS, CA 90670  
TEL: 562-946-5537  
FAX: 562-946-2333

**AQ 1302**  
**MATERIAL SAFETY DATA SHEET**  
**DATE PREPARED: OCTOBER 1996**  
**FOR EMERGENCY: 562 946 5537**

### SECTION I. IDENTIFICATION

**PRODUCT:** ROLLER WASH No. 2  
**CODE:** AQ 1302  
**CHEMICAL FAMILY:** Blend of aromatic and aliphatic hydrocarbon solvents  
**DOT CLASSIFICATION:** Combustible liquid n.o.s.(naphtc.).NA993,II

### SECTION II. HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>%</th>
<th>TLV</th>
<th>CAS NO.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic hydrocarbon</td>
<td>70 - 80</td>
<td>400</td>
</tr>
<tr>
<td>Aromatic hydrocarbon</td>
<td>15 - 25</td>
<td>100</td>
</tr>
<tr>
<td>Glycol ether</td>
<td>7 - 12</td>
<td>50</td>
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### SECTION III. PHYSICAL PROPERTIES

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOILING POINT</td>
<td>310°F</td>
</tr>
<tr>
<td>PARTIAL PRESSURE (mmHg at 20°C)</td>
<td>2.9</td>
</tr>
<tr>
<td>DENSITY (g/mL at 20°C)</td>
<td>0.752</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td></td>
</tr>
<tr>
<td>SOLUBILITY IN WATER</td>
<td>Disp.</td>
</tr>
<tr>
<td>APPEARANCE AND ODOR</td>
<td>Clear, yellow, liquid, mild odor</td>
</tr>
<tr>
<td>VOLATILE ORGANIC COMPOUNDS (VOC)</td>
<td>6.6 lb/gal (792 g/ml)</td>
</tr>
</tbody>
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### SECTION IV. FIRE AND EXPLOSION HAZARDS

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLASH POINT (TOC)</td>
<td>113°F</td>
</tr>
<tr>
<td>EXPLOSIVE LIMITS IN AIR (%)</td>
<td>LEL=1.0%  UEL=6.2%</td>
</tr>
<tr>
<td>EXTINGUISHING MEDIA</td>
<td>Water, foam, carbon dioxide, dry chemical</td>
</tr>
<tr>
<td>SPECIAL FIRE FIGHTING PROCEDURES</td>
<td>Use self-contained breathing apparatus and protective clothing</td>
</tr>
<tr>
<td>UNUSUAL FIRE AND EXPLOSION HAZARD</td>
<td>Material is highly volatile. Vapors may travel at ground level and be ignited by pilot lights, sparks, heaters, electrical motors, etc.</td>
</tr>
</tbody>
</table>

Page 1 of 3
SECTION V - HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL  
750 ppm

THRESHOLD LIMIT VALUE  
750 ppm

EFFECTS OF OVEREXPOSURE

EYES: Exposure to liquid or vapor causes eye irritation. Symptoms may include stinging, tearing, redness and swelling.

SKIN: Exposure may cause mild skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying, cracking and skin burns. Pre-existing skin disorders may be aggravated by exposure to this material. Absorption is possible but harmful effects are not expected from this route of exposure under normal conditions of handling and use.

BREATHING: Exposure to vapors or mist is possible. Short term inhalation toxicity is low. Breathing small amounts during normal handling is not likely to cause harmful effects; breathing large amounts may be harmful. Symptoms are more typically seen at air concentrations exceeding the recommended exposure limits. Symptoms of exposure may include:
- Irritation of nose, throat, respiratory tract
- Pre-existing lung disorders, e.g., asthma-like conditions, may be aggravated by exposure to this material resulting in acute, central nervous system (CNS) depression (dizziness, weakness, drowsiness, fatigue, nausea, headache, unconsciousness) and other CNS effects (coma).

SWALLOWING: Single dose oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Symptoms may include:
- Throat irritation, gastrointestinal irritation (nausea, vomiting, diarrhea), central nervous system depression (dizziness, weakness, fatigue, nausea, headache, unconsciousness), high blood sugar, coma. This material can enter the lungs during swallowing or vomiting and cause lung irritation and/or damage.

FIRST AID:

If on skin: Remove contaminated clothing, wash exposed area with soap and water.

If in eyes: If symptoms persist, seek medical attention. Lavender clothing before re-use.

If inhaled: DO NOT INDUCE VOMITING. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with head down. Seek medical attention. If possible, do not leave individual unattended.

If breathed: If symptoms develop, immediately move individual away from exposure and into fresh air. Seek medical attention. Keep individual warm and quiet. If person is not breathing, begin artificial respiration if breathing is difficult. Administer oxygen.

**NOTE TO PHYSICIAN**

This material (or a component) has produced hypoglycemia and ketosis following substantial ingestion.

PRIMARY ROUTES OF ENTRY: Inhalation, skin absorption, skin contact, eye contact.

EFFECTS OF CHRONIC EXPOSURE: This material (or a component) shortens the time of onset or worsens the liver and kidney damage caused by other chemicals. This material (or a component) has been shown to cause harm to the rat in laboratory animal studies; harm to the fetus occurs at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: increased incidence of cancer, decreased liver function, increased kidney function.

SECTION VI - REACTIVITY DATA

STABILITY: Stable under normal conditions of storage and handling.

INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizing agents and strong acids.

HAZARDOUS POLYMERIZATION: Cannot occur.
SECTION VIII - PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION
If workplace exposure limits of product (or a component) is exceeded (see Section II), a NIOSH/MSHA supplied respirator is advised. In absence of proper environmental control, OSHA regulation also permits other NIOSH/MSHA respirators (negative pressure type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

VENTILATION
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure levels below TLV's (see Section II) or to below level of average exposure (from known, suspected or apparent adverse effects).

PROTECTIVE GLOVES
Wear resistant gloves (consult safety equipment supplier).

EYE PROTECTION
Chemical splash goggles in compliance with OSHA regulations are advised. However, OSHA regulations also permit other types of safety glasses (consult safety equipment supplier).

OTHER PROTECTIVE EQUIPMENT
To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

SECTION IX - SPECIAL PRECAUTIONS OR OTHER COMMENTS

Containers of this material may be hazardous when emptied since emptied containers retain product residues (vapor, liquid and/or solids). All hazard precautions given in this sheet must be observed.

WARNING!! Sudden release of hot organic vapors or mist from process or equipment operating at elevated temperatures and pressures, or sudden ingress of air into vacuum equipment may result in ignitions without the presence of obvious ignition sources. Published "autoignition" or "ignition" temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product at elevated process temperatures should be thoroughly evaluated to establish and maintain safe operating conditions.

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High VOC Roller Cleaner Used at R.R. Donnelley & Sons
MATERIAL SAFETY DATA SHEET


Finished Goods Catalog

MANUFACTURER NAME
ANCHOR LITHOGRAPH, A SUBSIDIARY OF FUJI KURE

SECTION 1 - COMPANY IDENTIFICATION

Catalog / Sub-assembly Number: 756
ANCHOR LITHOGRAPH, A SUBSIDIARY OF FUJI KURE
50 Industrial Loop North
Orange Park, FL 32073

TRANSPORTATION HAZARDS: LIQUID
Inside US/Canada 800-824-9555
Outside US/Canada 781-627-1827
(accepts collect calls)

MEDICAL EMERGENCIES: 1-888-881-8481

FOR INDUSTRIAL USE ONLY......USE ONLY AS DIRECTED......DO NOT TAKE INTERNALLY!!!

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS Number</th>
<th>#.1</th>
<th>OSHA REL</th>
<th>ACGIH EL</th>
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</thead>
<tbody>
<tr>
<td>Aliphatic Hydrocarbons</td>
<td>61742-88-7</td>
<td>18-20%</td>
<td>100ppm</td>
<td>100ppm</td>
</tr>
<tr>
<td>Aromatic Hydrocarbons</td>
<td>106-28-6</td>
<td>5-10%</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Fatty Acid Ester</td>
<td>78-92-5</td>
<td>15-35%</td>
<td>NS</td>
<td>NS</td>
</tr>
<tr>
<td>Aliphatic Hydrocarbons</td>
<td>6842-67-0</td>
<td>5-70%</td>
<td>0.7%</td>
<td>0.7%</td>
</tr>
</tbody>
</table>

NS - Not Established STEL-Short Term Exposure Limit C- Ceiling Limit

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: Light, yellow liquid
Odor: Mild odor

Avoid contact with eyes, skin, or clothing. Avoid inhaling mist or vapor. Do not swallow. Wear chemical safety glasses & chemical resistant gloves. Wash thoroughly after handling. Keep container closed when not in use. Use only

Revision Date: 03/14/2003  Page 1
SECTION 4 - FIRST AID MEASURES

Eye Contact: Immediately flush with CWR water for 15 minutes. Call a physician.

Skin Contact: Keep eyes closed; wash with soap and water for 15 minutes. Call a physician.

Ingestion: Do not induce vomiting. Call a physician.

Inhalation: Immediately remove victim to fresh air. Call a physician for further recommendations.

SECTION 5 - FIRE FIGHTING MEASURES

Flammable Properties:

Flash Point: 175 Deg F (80C)

Autoignition Temperature: N/A

Explosion Limits: Lower N/A Vol%; Upper N/A Vol%.

OSHA Class IIA Combustible Liquid

Extinguishing Media:

Choose extinguishing media suitable for the surrounding materials, such as water spray. Dry chemical, alcohol foam or carbon dioxide.

Unsuitable Extinguishing Media:

No restrictions. Contact local authority for knowledge of this material.

Fire Fighting Instructions:

Water spray should be used to cool fire exposed containers and to disperse unignited vapors. Use NIOSH/NFPA approved positive pressure self-contained breathing apparatus when material has ignited or becomes involved in a fire. Try to remove material containers from fire area if it can be accomplished without risk to personnel.

Evacuate area and fight fire from a safe distance. Call your local fire department. Wear positive pressure, breathing apparatus and protect eyes and skin. Use water to cool fire-exposed containers to protect personnel and to disperse vapors and spills. Fire media run-off can damage the environment. Dilute and collect media used to fight fire.
SECTION 6 - ACCIDENTAL RELEASE MEASURES

Small Spills:
For small incidental spills and leaks, wear chemical safety goggles, and
nitrile gloves and apron or coveralls. Isolate area of spill by diking.
Step source of leak. Add dry absorbent. Clean up and place in an approved
D.O.T. container and seal. Wash all contaminated clothing before reuse, and
discard contaminated leather shoes.

Large Spills:
For larger spills requiring emergency response, respirator boots and respira-
tory protection may also be required. Follow OSHA regulations and NSC
edition). Follow source of leak. Add dry absorbent. Clean up and place in an approved
D.O.T. container and seal. Wash all contaminated clothing before reuse, and
discard contaminated leather shoes. Call the emergency telephone number
shown on the front of this sheet.

SECTION 7 - HANDLING / STORAGE

Handling:
Avoid contact with eyes, skin or clothing. Avoid breathing mist or vapor.
Do not swallow. Wear chemical safety goggles and nitrile gloves and apron.
Wash thoroughly after handling. Keep container closed when not in use. Use
only with adequate ventilation.

Storage:
Store in a cool, dry, well-ventilated area away from all sources of ignition.
Keep container closed when not in use.

SECTION 8 - EXPOSURE CONTROL AND PERSONAL PROTECTION

Ventilation:
Good general ventilation should be sufficient for most processing operations.
Vent work areas to reduce airborne concentrations are below the current
occupational exposure limits. Ten (10) or more room air changes per hour
containing a minimum of 15% fresh air will meet these requirements. Consult
American Conference of Governmental Industrial Hygienists (ACGIH) for further requirements.

Personal Protective Equipment:
Respiratory Protection: If used under normal operating conditions and with adequate ventilation,
respiratory protection is not required. However, refer to OSHA 29 CFR 1910.13
4.
Skin Protection: Chemical resistant gloves
Eye Protection: Chemical safety goggles

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light, yellow liquid
Odor: Mild odor
Change in Physical State:
Melting Point: 50°F
Boiling Point: 350°F
Specific Gravity: 0.85
Vapor Pressure: 0.0
Viscosity: N/A
Solubility in Water: N/A
pH Value: N/A

VOC (lbs/gal): 3.26 (USEPA Method 241)

SECTION 10 - STABILITY AND REACTIVITY

Hazardous Polymerization:

Revision Date: 03/14/2003  Page 3
SECTION 11 - TOXICOLOGICAL INFORMATION

Product Information:
CAS No.: No Data Available

Health Danger Information:
Skin: Normal exposure is not known to the general population. If skin irritation should occur, wash thoroughly with soap and water.

Chemical Properties:
Prolonged or repeated skin contact or eye contact may cause allergic reaction and dermatitis.

Ingredient Information:
Swallowing of hydrocarbons can cause lung damage. Repeated exposure to hydrocarbons can cause dermatitis.

SECTION 12 - ECOLOGICAL INFORMATION

Toxicity Data:
No Data Available

Chemical Fate Data:
No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

Hazardous Waste Characteristics:

Disposal:
Disposal of contaminated product, empty containers, and materials used in cleaning up spills or leaks is in a manner approved by the appropriate federal, state, or local regulatory agencies to assure proper disposal procedures. Discharge of processing effluents to the sewer may require a permit. Do not discharge effluent solutions to septic systems.

SECTION 14 - TRANSPORTATION INFORMATION

Shipping Information:
Proper Shipping Name: Combustible Liquid, U.O.S. (contains Petroleum Naphtha)
 Hazard Class: 3
 UN/NA Number: 3088
 Packing Group: FIII

Air (Hazardous Materials Table) Shipping Information:
Proper Shipping Name: Chemical, N.O.T., Non D.O.T. regulated.
 Hazard Class: None
 UN/NA Number: None
 Packing Group: None

UN/DOT Labels and/or Connectible Information:
International Maritime Organization (IMO) Additional Shipping Class:

IMDG Code: Not Applicable

A.R. Code: None

Product is labeled in accordance with US D.O.T. 49 CFR.

Further Information:
Please call 1-800-244-1580 for further D.O.T. information.

Revision Date: 01/14/2003 Page 4
SECTION 15 - REGULATORY INFORMATION

DEFERRED. The information included in this section is provided for
referring requirements as directed by OSHA, state and local regulations. If
ingredient is listed in this section but not in Section 3, then the
consumption of this ingredient is below 0.1% of a formula.

D.E. FEDERAL REGULATIONS:
E11S - SARA Title III Section 112 (40 CFR 372 -- Toxic Release Inventory)
E11S = SARA Title III Section 112 (40 CFR 372 -- Extremely Hazardous Substances)
E11S = SARA Title III Section 302 (40 CFR 302 -- Hazardous Substances List)
E11S = Clean Water Act Priority Pollutants List
E11S = Clean Air Act 1990 Hazardous Air Contaminants
E11S = Clean Air Act - NON HAP - NOPE

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS Number</th>
<th>E11S</th>
<th>SARA</th>
<th>E11S</th>
<th>HAP</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic Hydrocarbon</td>
<td>64742-68-7</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Aromatic Hydrocarbon</td>
<td>71405-66-0</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
<tr>
<td>Fatty Acid Ester</td>
<td>7905-34-6</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>N</td>
</tr>
</tbody>
</table>

SDS 111b(11) Export Notification
CAS NUMBER: CREATIVE NAME
131-11-3 CINNAMALDEHYDE (MDM)

TOXICITY INFORMATION:
IARC = IARC Group 1 Human Carcinogenic List
IARC = IARC Group 2A Human Carcinogenic List (limited human data)
IARC = IARC Group 3 Human Carcinogenic List (sufficient animal data)
NIOSH = NIOSH Known Carcinogenic List
CSA = CSA Brown Carcinogenic List

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS Number</th>
<th>IARC IARC IARC NIOSH CSA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic Hydrocarbon</td>
<td>64742-68-7</td>
<td>N</td>
</tr>
<tr>
<td>Aromatic Hydrocarbon</td>
<td>71405-66-0</td>
<td>N</td>
</tr>
<tr>
<td>Fatty Acid Ester</td>
<td>7905-34-6</td>
<td>N</td>
</tr>
</tbody>
</table>

STATE REGULATIONS:
FL = Florida Hazardous Substance List
MI = Michigan Critical Materials List
NJ = New Jersey Right-To-Know List
PA = Pennsylvania Right-To-Know List

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS Number</th>
<th>FL</th>
<th>MI</th>
<th>NJ</th>
<th>PA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic Hydrocarbon</td>
<td>64742-68-7</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>E</td>
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<tr>
<td>Aromatic Hydrocarbon</td>
<td>71405-66-0</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>E</td>
</tr>
<tr>
<td>Fatty Acid Ester</td>
<td>7905-34-6</td>
<td>N</td>
<td>N</td>
<td>N</td>
<td>X</td>
</tr>
</tbody>
</table>

The following information is required by the State of California's Safe Drinking
Water and Toxic Enforcement Act of 1986 or Proposition 65. This regulation
does not address at minimum levels; therefore, even those amounts of chemicals
includes on these lists must be noted with the "Safe Harbor" wording.

WARNING: RECOMMENDED FOR USE IN THE STATE OF CALIFORNIA TO CAUSE CANCER.
CAS NUMBER: CHEMICAL NAME
92-22-3 4-METHYLPYRROLIDONE
WARNING: RECOMMENDED FOR USE IN THE STATE OF CALIFORNIA TO CAUSE DEVELOPMENTAL TOXICITY.
***HORME LISTED***
WARNING: RECOMMENDED FOR USE IN THE STATE OF CALIFORNIA TO CAUSE REPRODUCTIVE EFFECTS
***HORME LISTED***

Revision Date - 05/14/2003  Page 109
WARNING: Known to the State of California to cause male reproductive effects.

Non listed

The following designation is used only for those facilities that have air permits in nonattainment areas for ozone;
Non-Photochemically Reactive

SECTION 16 - OTHER INFORMATION

This information is provided without warranty. The information is believed to be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.
High VOC Blanket Cleaner Used at R.R. Donnelley & Sons
# Material Safety Data Sheet

**Product:** Shell Mineral Spirits 148 HP

**Chemical Name:** Solvent Naphtha (Petroleum), medium asphaltic

**Chemical Family:** Hydrocarbon Solvent

**Section 21-2 Acute Toxicity Data**

<table>
<thead>
<tr>
<th>Route</th>
<th>LD₅₀ (oral, rat)</th>
<th>LC₅₀ (dermal, rat)</th>
<th>LC₅₀ (inhalation, rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>&gt;2000 mg/kg (rat)</td>
<td>&gt;2000 mg/m³ (rat)</td>
<td></td>
</tr>
</tbody>
</table>

**Additional Information:**

- Acute oral LD₅₀ not available.
- Acute dermal LD₅₀: >2000 mg/kg (rat).
- Acute inhalation LD₅₀: >2000 mg/m³ (rat).

**A. O. Layne, Inc.**

4576 Brazil Street
Los Angeles, CA 90039

213/245-2345 * Fax # 818/242-7804
2.0G AND SYMPTOMS

EXTREME AS NOTED ABOVE. EARLY TO MODERATE CNS (CENTRAL NERVOUS SYSTEM) DEPRESSION MAY BE

INDUCED BY DIZZINESS. HEADACHE. DIZZINESS AND DROWSINESS IN EXTREME CASES. UNCONSCIOUSNESS AND DEATH

OCUR. ASPIRATION PNEUMONITIS MAY BE INDICATED BY COUGHING. LABORED BREATHING AND CYANOSIS

BREATH (BANT). IN SEVERE CASES DEATH MAY OCCUR.

IMPAIRED MEDICAL CONDITIONS

REPEATING IVE. SKIN. AND RESPIRATORY DISORDERS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

SECTION IV:

OCCUPATIONAL EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>OSHA</th>
<th>ACGIH</th>
<th>TLV/NIOSH</th>
<th>TLV/BEYEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>100 PPM</td>
<td>100 PPM</td>
<td>100 PPM</td>
<td>100 PPM</td>
</tr>
</tbody>
</table>

REMEMBER THAT LIMITS FOR TOXIC SOLVENTS SHOULD BE USED AS A GUIDE.

SECTION V:

EMERGENCY AND FIRST AID PROCEDURES

EYE CONTACT

FLUSH EYES WITH PLENTY OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. GET MEDICAL ATTENTION.

SKIN CONTACT

WASH CONTAMINATED CLOTHING/SCHOES. FLUSH SKIN WITH WATER. FOLLOW BY WASHING WITH SOAP AND WATER.

IF IRRITATION OCCURS. GET MEDICAL ATTENTION. DO NOT REUSE CLOTHING UNTIL CLEANED.

INHALATION

REMOVES VICTIM TO FRESH AIR AND PROVIDE OXYGEN IF BREATHING IS DIFFICULT. GIVE ARTIFICIAL

RESPIRATION IF NOT BREATHING.

INGESTION

DO NOT INDUCE VOMITING. IF VOMITING OCCURS SPONTANEOUSLY. KEEP HEAD BELOW HIPS TO PREVENT

ASPIRATION OF LIQUID INTO THE LUNGS. GET MEDICAL ATTENTION.

NOTE TO PHYSICIAN

IF MORE THAN 2.0 ML PER KG HAS BEEN INGESTED AND VOMITING HAS NOT OCCURRED. ENEMIS SHOULD BE

INDUCED WITH SUGAR SYRUP. KEEP VICTIM'S HEAD BELOW HIPS TO PREVENT ASPIRATION. IF SYMPTOMS SUCH

AS LOSS OF BALANCE. CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE ENEMIS, GASTRECTOMY USING A

GASTROGRAPHIC TUBE SHOULD BE CONSIDERED.

SECTION VI:

SUPPLEMENTAL HEALTH INFORMATION

HALF LIFE EXPOSED FOR 80 DAYS BY INHALATION TO VAPORS OF SIMILAR SOLVENTS SHOWS EVIDENCE OF KIDNEY

DAMAGE. THE RELIABILITY OF THIS EFFECT TO HUMAN BEHAVIOR IS AN ESTATE AND A LOW GRADE AMELIA

HAS ALSO BEEN OBSERVED.

SECTION VII:

PHYSICAL DATA

BOILING POINT: 100-373
SPECIFIC GRAVITY: 0.73
VAPOR PRESSURE: 0.015
(10000)
PRODUCT NAME: SMALL MINERAL SPARKS 485 MT

WEIGHT: NOT AVAILABLE  

SOLUBILITY: NEGLECTIBLE  

VAPOR DENSITY: 5.8  

EVAPORATION RATE (IN BUTYL ACETATE = 13): 0.07  

APPEARANCE AND ODOR:  
LIGHT COLORED LIQUID. HYDROCARBON ODOR.

SECTION VIII  
FLAME AND EXPLOSION HAZARDS

FLASH POINT AND METHOD:  
FLASH POINT: 109° F (42° C)  

FLAMMABLE LIMITS /% VOLUME IN AIR:  
LOWER LIMIT: 1  
UPPER LIMIT: 7

EXTINGUISHING MEDIA  
USE WATER. FOAM, DRY CHEMICAL OR CO2. DO NOT USE A DIRECT STREAM OF WATER. PRODUCT WILL FLOAT AND CAN BE REIGNITED ON SURFACE OF WATER.

SPECIAL FIRE FIGHTING PROCEDURES AND PRECAUTIONS  
CAUTION. COMBUSTIBLE. DO NOT ENTER CONTAINED FIRE SPACE WITHOUT FULL BUNKER GEAR (HELMET WITH FACE SHIELD, BUNKER COATS, GLOVES AND RUBBER BOOTS). INCLUDING A POSITIVE PRESSURE WHEELED APPROVED SELF-CONTAINED BREATHING APPARATUS. COOL FIRE EXPOSED CONTAINERS WITH WATER.

UNUSUAL FIRE AND EXPLOSION HAZARDS  
CONTAINERS EXPOSED TO EXTREME HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOR PRESSURE BUILDUP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE.

SECTION IX: REACTIVITY

STABILITY: STABLE  
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

CONDITIONS AND MATERIALS TO AVOID:  
AVOID HEAT, FLAME AND CONTACT WITH STRONG OXIDIZING AGENTS.

HAZARDOUS DECOMPOSITION PRODUCTS  
CARBON MONOXIDE AND UNIDENTIFIED ORGANIC COMPOUNDS MAY BE FORMED DURING COMBUSTION.

SECTION X: EMPLOYEE PROTECTION

RESPIRATORY PROTECTION  
AVOID EXPOSURE OR REPEATED BREATHING OF VAPORS. IF EXPOSURE MAY OR DOES EXCEED OCCUPATIONAL EXPOSURE LIMITS (SEC. 19) USE A NIOSH APPROVED RESPIRATOR TO PREVENT OVEREXPOSURE. IN ACCORD WITH 29 CFR 1810.134 USE EITHER AN ATMOSPHERE-SUPPLYING RESPIRATOR OR AN AIR-PURIFYING RESPIRATOR FOR ORGANIC VAPORS.

OSHA HAS ESTABLISHED TRANSITIONAL OCCUPATIONAL EXPOSURE LIMITS FOR THIS PRODUCT AND/OR COMPONENTS OF THIS PRODUCT. REFER TO 29 CFR 1810.1000 FOR THESE TRANSITIONAL LIMITS AND REQUIREMENTS FOR MEETING THESE LIMITS.

PROTECTIVE CLOTHING  
AVOID CONTACT WITH EYES. WEAR SAFETY GLASSES OR GOOGLES AS APPROPRIATE. AVOID PROLONGED OR REPEATED CONTACT WITH SKIN. WEAR CHEMICAL-RESISTANT GLOVES AND OTHER CLOTHING AS REQUIRED TO MINIMIZE CONTACT. TEST DATA FROM PUBLISHED LITERATURE AND/OR GLOVE AND CLOTHING MANUFACTURERS INDICATE THIS.

ADDITIONAL PROTECTIVE MEASURES  
TEST PROTECTION IS PROVIDED BY NIOSH MATERIALS. USE EXPLOSION-PROOF VENTILATION AS REQUIRED TO CONTROL VAPOR CONCENTRATIONS. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA THEN LAUNDER BEFORE REUSING.
ENVIRONMENTAL PROTECTION

**EMERGENCY PROCEDURES**

**EMIT, COMBUSTIBLE:** Large spills *** eliminate potential sources of ignition. Wear protective clothing and respirator. Shut off leak only if safe to do so. Use vacuum truck or pump to store or salvage. Close vented area to prevent atmosphere from being drawn into waste tank. Use a MSDS for proper disposal. Place in non-leaking containers for proper disposal.

**LIQUID AND VAPOR AWAY FROM HEAT, SPARKS AND FLAMES.** Surfaces that are sufficiently hot may ignite liquids. Keep away from other sources of ignition prior to use and until all vapors are gone. Vapors may accumulate and travel to ignition sources distant from the handling site; flash fire can result.

**EXPOSURE, EVEN THOSE THAT HAVE BEEN INHALED, CAN CONTAIN EXPLOSIVE VAPORS. DO NOT CUT, DRILL, WELD OR PERFORM SIMILAR OPERATIONS ON OR NEAR CONTAINERS.**

**TO ELECTRICITY MAY ACCUMULATE AND CREATE A FIRE HAZARD. GROUND FIXED EQUIPMENT. ENSURE THAT TRANSFER CONTAINERS AND EQUIPMENT ARE GROUNDED.**

TRANSPORTATION REQUIREMENTS

VENT OF TRANSPORTATION CLASSIFICATION:

**TABLE 3.3**

**1. PROPER SHIPPING NAME:**

**2. RELATED HAZARDS:**

**8. REQUIREMENTS:**

**3. OTHER REGULATORY CONTROLS:**

**9. PRODUCT IS LISTED ON THE EPA/TSCA INVENTORY OF CHEMICAL SUBSTANCES.**

**ACCORDBANCE WITH SARA**

**STATE REGULATORY INFORMATION**
PRODUCT NAME: SHELUX MINERAL SPIRITS 10 WHT

THE INFORMATION IS BEING SYSTEMATICALLY ADDED TO OUR AIDS. IT HAS PREVIOUSLY BEEN PROVIDED TO YOU IN VARIOUS WAYS, INCLUDING THE AIDS. THE NEW AIDS FORMAT IS INTENDED TO PROVIDE THE USER WITH THE INFORMATION IN A MORE CONVENIENT MANNER.

SECTION XIV

THIS REVISION REFLECTS A PRODUCT NAME CHANGE.

THE INFORMATION CONTAINED HEREIN IS BASED ON THE DATA AVAILABLE TO US AND IS BELIEVED TO BE CORRECT. HOWEVER, SHELL MAKES NO WARRANTY, EXPRESS OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF. SHELL ASSUMES NO RESPONSIBILITY FOR INJURY FROM THE USE OF THE PRODUCT DESCRIBED HEREIN.

DATE PREPARED: JANUARY 91, 1989

BE SAFE
HEED THE PRODUCT
SAFETY INFORMATION...AND PASS IT ON
(PRODUCT LIABILITY LAW REQUIRES IT)

S. A. VAN GELDEN
SHELL OIL COMPANY
PRODUCT SAFETY AND COMPLIANCE
P. O. BOX 4650
HOUSTON, TX 77256
High VOC Hand Blanket Wash Used at The Castle Press
# Material Safety Data Sheet

**Product Name:** POWERKLEEN VC  
**Product Code:** A746  
**CAS Numbers:** 202-15-9

## Section I - Manufacturer Identification

**Manufacturer's Name:** PAINTERS' SERVICE  
**Address:** 2K Blanchard Street  
**Newark, New Jersey 07105**

**Emergency Phone:** 1-800-424-8300  
**Emergency Phone:** 1-973-849-7600  
**Date Prepared:** 06/10/37  
**Name of Preparer:** ENVIRONMENTAL DEPT.

## Section II - Hazardous Ingredients/Area III Information

### Incompatible Materials

- **Aromatic Petro Distillate (CAS 121-67-2)**
- **Solvent:** 1.5 lb/gal @ 70°F

### Physical/Chemical Characteristics

- **Boiling Point:** 215°F
- **Flash Point:** 114°F
- **Phenyl Chloride in Air:** Lower: 0.5 ppm, Upper: 5 ppm
- **Special Firefighting Procedures:** Keep container cool. Control boiling water since it may tend to spread burning material.
- **Emergency Fire and Explosion Hazards:** If boiling point of solvent is reached, the container may explode. Do not open if broken, generate a vapor cloud.

## Section V - Reactivity Data

**Stability:** 
- **IF EXCITED:** Yes
- **IF NO CONDITIONS:** Yes

**Incompatibility (Materials to Avoid):** 
- **IF EXCITED:** Water, Acids, Oxidizing Reagents

**Explosive Decomposition or Polymerization:** Carbon Dioxide. Oxygen Monoxide or Oxidation

## Section VI - Health Hazard Data

**Indications of Exposure:** Inhalation, Skin Absorption, Eyes. Very High Levels of Vapor Could Cause Unconsciousness. Skin and Eye Irritation from Small Burning Material.  
**Health Effects and Symptoms of Exposure:** Rash, Dermatitis, Skin Irritation. Very High Levels of Vapor Could Cause Unconsciousness.
High VOC Automated Blanket Wash Used at The Castle Press
MATERIAL SAFETY DATA SHEET

PRODUCT NAME: AUTOSNAP 6000
PRODUCT CODE: A229
CHEMICAL NAME: BLANKET AND ROLLER WASH

SECTION I - MANUFACTURER IDENTIFICATION
MANUFACTURER'S NAME: PRINTERS' SERVICE
ADDRESS: 26 Blanchard Street
Newark, New Jersey 07105
EMERGENCY PHONE: 1-800-424-9300
INFORMATION PHONE: 1-973-585-7800
LAST REVISION: 8/02/2000
DATE REVIEWED: 03/22/02
REVIEWER: ENVIRONMENTAL DEPT.

SECTION II - HAZARDOUS INGREDIENTS
RELEVANT COMPONENTS

<table>
<thead>
<tr>
<th>CAS NUMBER</th>
<th>VAPOR PRESSURE</th>
<th>WEIGHT</th>
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</thead>
<tbody>
<tr>
<td>60426-48-9</td>
<td>2.69 mm Hg</td>
<td>25 C</td>
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</tbody>
</table>

* Indicates chemical(ies) subject to the reporting requirements of section 313 of Title III and of 49 FR 372. CAS 60426-48-9 contains approximately 58% 3,7-DIC (CAS 1332-60-7) an IRP registrable which has a PEL and TLV of 100 ppm. Approximately 1% 3,7-DIC (CAS 98-42-11) an IRP registrable which has a PEL and TLV of 58 ppm-air. Approximately 29% 1,2,4 TRIMETHYL-2-EN-3-OL (CAS 95-65-6), which has a PEL and TLV of 25 ppm. 3,7-DIC and 1,2,4 TRIMETHYL-2-EN-3-OL are subject to the reporting requirements of section 313 of the OSHA TITLE III.

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>VISCOSITY</td>
<td>4.56 cP (air = 1)</td>
</tr>
<tr>
<td>DENSITY</td>
<td>0.78</td>
</tr>
<tr>
<td>% SOLVENT</td>
<td>95</td>
</tr>
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</table>

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

<table>
<thead>
<tr>
<th>PROPERTIES</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>FLASH POINT</td>
<td>150 F</td>
</tr>
</tbody>
</table>

SECTION V - REACTIVITY DATA

STABILITY: NS
INCOMPATIBILITY (MATERIALS TO AVOID): NS
IF INGREDIENTS CROSSED: CHLORINE, HYDROGEN

SECTION VI - HEALTH HAZARD DATA

INDICATIONS OF EXPOSURE:
IMMUNIZATION OF HEALTH RISKS AND SYMPTOMS OF EXPOSURE: NO REACTIONS. IRRITATION OR STICKY EXPOSURE.
High VOC Roller Wash Step 1 Cleaner Used at The Castle Press
MATERIAL SAFETY DATA SHEET

PRODUCT NAME: SUPERKLENE 1 IC-EXEMPT

EMIS CODES: H F E

CHEMICAL NAME: ELENIK (ENGLISH NAME: 1,2,4-TETRAHYDROFURAN)

MANUFACTURER'S NAME: PRINTERS' SERVICE

ADDRESS: 26 Blanchard Street

Newark, New Jersey 07105

EMERGENCY PHONE: 1-800-424-9300

INFORMATION PHONE: 1-973-589-7800

LAST REVISION: 12/03/01

DATE REVISED: 03/24/02

PREPARER: ENVIRONMENTAL DEPT.

SECTION II - HAZARDOUS INGREDIENTS/SARA III INFORMATION

COMPONENT

AMBERLITE IRONION 194

CAS NUMBER: 1414-93-7

VAPOR PRESSURE: 0.5mmHg 20 C

AROMATIC RESIDUAL DISTILLATE

Vapor Pressure: 105mmHg 212-304F 180mmHg 180mmHg

INHALATION OBTAINED

PD DATA

AMBERLITE IRONION 194

Vapor Pressure: 105mmHg 212-304F 180mmHg 180mmHg

EXPERTISE OF METAL ROOF

PACKAGING

DATA

CAS 74-40-9 contains approximately 1,2,4-TETRAHYDROFURAN (CAS 95-43-4), which has a FL and TLV of 15 ppm and a

This reportable which has a FL and TLV of 15 ppm. MALELON and 1,2,4 TETRAHYDROFURAN are

The reporting requirements of section 121 of SARA TITLE III.

SECTION III - PHYSICAL/Chemical CHARACTERISTICS

SOLDING POINT: 212 - 304 F

VAPOR PRESSURE: 0.5mmHg 20 C

OILS: 0.08 lb/gal

METHOD: ASTM D1312

FLAMMABILITY: NO

VAPOR PRESSURE: 0.5mmHg 20 C

AMOUNTS: 5.00 lb g

NO SPONTANEOUS: NO

AMOUNTS: 5.00 lb g

SPONTANEOUS: NO

AMOUNTS: 5.00 lb g

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 142 F

METHOD USED: TC

FLAMMABLE LIMITS IN AIR: 0.5

EXTINGUISHING MEDIA: CO2, C02, SUBSTANCES (WATER MAY BE INHIBITING)

SPECIAL FIREFIGHTING PROCEDURES:

NO FRICTION FIREPROOFING MATERIAL.

UNUSUAL FIRE AND EXPLOSION HAZARDS: IF BOLUS POINT OF SENSITIVITY IS REACHED, THE CONTAINER MAY FUEL

SECTION V - REACTIVITY DATA

STABILITY: NS

IF NO CONDITIONS:

INCOMPATIBILITY (MATERIALS TO AVOID): NS

IF YES WHICH ONES: STORE SEPARATE

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: CARBON MONOXIDE, CARBON MONOXIDE, NITROGEN OXIDES, EMBERS ETC.

HAZARDOUS POLYMERIZATION: NS

INDICATIONS OF EXPOSURE:

SALVATION, BLOWING, SNOTS, EMBERS. VENTILATION LEVELS OF VAPORS CAUSE CHOKING.

SLIGHT IRRITATION OF THE NOSE, EMBERS. VENTILATION LEVELS OF VAPORS CAUSE IRRITATION.

HEAT CONTACT AND EXPOSURE: BURNS OR BURNING SENSATION.
High VOC Roller Wash Step 2 Cleaner Used at The Castle Press
MATERIAL SAFETY DATA SHEET

PRODUCT NAME: SUTTEKLINE 2P
PRODUCT CODE: 2215

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURERS NAME: PRINTERS' SERVICE
ADDRESS: 26 Blanchard Street
Newark, New Jersey 07105

EMERGENCY PHONE: 911
INFORMATION PHONE: 800-424-9300
DATE REVISED: 07/23/37
NAME OF PREPARED: ENVIRONMENTAL DEPT.

SECTION II - HAZARDOUS INGREDIENTS/ADDITIONAL INFORMATION

REACTIBLE COMPONENT

ACETIC ACID DISTILLATE (88-01-7)

VAPOR PRESSURE

WEIGHT

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BENDING POINT

SPECIFIC GRAVITY (D25°C/71°F)

4.4

1.08

VAPOR DENSITY

VOC

4.05 lb/ft³

METHOD: IPA 604

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT

METHOD USED: RC

FIRE EXTINGUISHING MEDIUM:

CARBON DIOXIDE

FLAMMABILITY LIMITS IN AIR BY VOLUMES

UPPER

6.9

SPECIAL FIRE-FIGHTING PROCEDURES

KEEP CONTAINER COOL. CONTROL COOLING WATER USING EXPOSED AREAS

SECTION V - REACTIVITY DATA

STABILITY: YES

IF NO CONDITIONS:

SECTION VI - HEALTH HAZARD DATA


t 急性低浓度作用原理:

EYE CONTACT AND SYMPTOMS OF EXPOSURE: NO EFFECTIVE TREATMENT FOR ACUTE TOXICITY OF THIS MATERIAL.

IF IN EYES, WASH WITH WATER FOR 15 MIN. LAW TO EYES. SEEK MEDICAL ADVICE IMMEDIATELY.

IF INGESTED, DO NOT INDUCE VOMITING. SEEK MEDICAL ADVICE IMMEDIATELY.

IF INHALED, REMOVE TO FRESH AIR. INHALATION. USE ARTIFICIAL RESPIRATION IF INHALED.
High VOC Cleaner Used at Print 2000
SECTION I - PRODUCT IDENTIFICATION

PRODUCT: STEP #2 ROLLER WASH

SUPPLIER: A. G. Layne, Inc.
4578 Brazil Street
Los Angeles, California 90039
(323) 245-2245
(818) 242-8943

24 HOUR EMERGENCY CONTACT: Chemtrec (800) 424-9300

HIMS PERSONAL PROT: Y

SECTION II - HAZARDOUS INGREDIENTS

HAZARDOUS COMPONENTS (CAS Number) EXPOSURE LIMITS

Material Spikes (64742-84-7) 100 ppm recommended

Light Aromatic Solvent Naphtha (64742-95-4) ND Contains:

Xylene (108-31-7) OSHA TWA 100 ppm, STEL 150 ppm, ACGIH TWA < 100 ppm, STEL 120 ppm
1,2,4-Trimethylbenzene (91-63-4) OSHA TWA 25 ppm

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 115-400°F
SPECIFIC GRAVITY (D20-1): 0.8
VAPOR DENSITY (Air=1): >1
SOLUBILITY IN WATER: Immiscible
APPEARANCE AND ODOR: Light colored liquid, aromatic solvent odor

MELTING POINT: NA
VAPOR PRESSURE: 1.5 mmHg @ 20 deg C (68 deg F)
EVAPORATION RATE (BD/AC): <1
pH: NA
VOC: 0.8 volatile, 19.31/g/pt.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (Method): 108°F
FLAMMABLE LIMITS: Lower [ND] Upper [ND]

EXTINGUISHING MEDIA: Dry powder, carbon dioxide (CO2), water fog or spray.

SPECIAL FIRE FIGHTING PROCEDURES: Approach fire from upwind side. Avoid breathing smoke, fumes, mist, or vapors on the downwind side. Firefighters wear protective clothing and self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Firefighters wear protective clothing and self-contained breathing apparatus.

SECTION V - REACTIVITY INFORMATION

STABILITY: Product is Stable
INCOMPATIBILITY:
MATERIALS TO AVOID: Oxidizing materials.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: From combustion: smoke, carbon monoxide, carbon dioxide.
HAZARDOUS POLYMERIZATION: Will not occur.
STEP #2 ROLLER WASH

SECTION VI - HEALTH HAZARD DATA

ROUTES OF ENTRY
INHALATION: possible - irritant
SKIN ABSORPTION: yes - irritant
INGESTION: possible - irritant

HEALTH HAZARDS
ACUTE: Inhalation of vapors may be narcotic or anesthetic. Ingestion of liquid will cause gastro-intestinal distress, irritation, and possibly nausea. Liquid or vapors may be irritating to skin and eyes.
CHRONIC: None Established
CARCINOGENICITY: LISTED IN NTP? No IARC MONOGRAPH? No OSHA REGULATED? No

SIGNS AND SYMPTOMS OF EXPOSURE: Signs of inhalation exposure, in order: Irritation of respiratory mucous membranes, suppression of respiratory center, unconsciousness, coma.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Pre-existing skin disorders.

FIRST AID PROCEDURES
EYE CONTACT: Flush eyes with water 15 minutes. Get medical attention if symptoms develop and persist.
SKIN CONTACT: Flush with water or soap and water for 15 minutes or until all traces have been removed. Seek medical attention if symptoms develop and persist.
INGESTION: Do not induce vomiting. Rinse mouth out with water. Get immediate medical attention.
INHALATION: Remove victim to fresh air and, if needed, immediately begin artificial respiration. Give oxygen if breathing is labored. Get emergency medical help. Contact a physician immediately.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

SPILL OR LEAK PROCEDURES: Emergency response coordinator must have respirator training. Eliminate all ignition sources.
SMALL SPILLS: Pick up with absorbent materials and place in non-leaking containers; seal tightly for proper disposal or reuse.
LARGE SPILLS: Enclose the hazard area of unprotected personnel. Wear appropriate respirator and protective clothing. Shut off source of liquid if safe to do so. Drain and contain. Remove with vacuum trucks or pump to storage/landfill vessel.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store in a cool place away from ignition sources. Store away from oxidizers or materials bearing a yellow "D.O.T." label.
OTHER PRECAUTIONS: Clean up leaks/spills immediately to prevent soil or water contamination.

SECTION VIII - CONTROL MEASURES

RESPIRATORY PROTECTION: If TLV is met or exceeded NIOSH/NIOSH Approved Respirator.
VENTILATION LOCAL EXHAUST - Recommended, SPECIAL - Not necessary,
MECHANICAL - Recommended, OTHER - Not necessary.

PROTECTIVE GLOVES: Chemical resistant gloves.
EYE PROTECTION: Chemical goggles or full face shield.
OTHER PROTECTIVE EQUIPMENT: Boots, aprons, dust masks, eye wash as needed for protection against spills and/or splashes.

WORK HYGIENIC PRACTICES: Avoid contact with skin, eyes, and clothing. After handling this product, wash hands before eating, drinking, or smoking. If contact occurs, remove contaminated clothing. If needed, take first aid action shown in Section VI. Launder contaminated clothing before reuse.
STEP #2 ROLLER WASH

SECTION IX - TRANSPORTATION INFORMATION

Shipping Name: Combustible Liquid,N.O.S. (Rubber Dam Distilled) MA0039045

Classification under 186 SDR: Pre-Transport Combustible Liquid: Flashpoint at or above 100 deg. F. Guide 12B

SECTION X - REGULATORY/ENVIRONMENTAL

EPA HAZARDOUS: ACUTE - Yes  CHRONIC - No  FLAMMABILITY - Yes  SUDEN RELEASE OF PRESSURE - No  REACTIVE - No

CERCLA NO. 33,300 based on Xylene

NOTICE: V.O.C. DECLINE WITH ADDITIONS OF WATER

SARA Title III

Section 113, Toxic Materials:

Chemical Name  CAS #  Percentage

Xylene  1330-20-7  0.2%

1,2,4-Trimethylbenzene  253-63-6  10%

CLEAN AIR ACT: Section 111

CLEAN WATER ACT: Section 311

STATE REQUIREMENTS:

Xylene (CAS# 1330-20-7) and Cumene (CAS# 106-42-3) are regulated by CA, CT, FL, H, LA, MA, ME, MN, NJ, PA, and WI in various state regulations. Other states may also have special requirements. This product contains less than 1% Cumene.

1,2,4-Trimethylbenzene (CAS# 95-43-0) is regulated by CA, MA, MN, NJ, and PA.

Other components of this product may be included in various state regulations.

For details on specific state requirements, contact the appropriate agency in your state.

CALIF. PROP. 65: To the best of our present knowledge, based on information available at the time of this entry, we are not aware of any chemicals present in this product known to the State of California to cause cancer, birth defects, and/or reproductive harm.

TOXIC SUBSTANCES CONTROL ACT (TSCA), 40 CFR 716 Sources of the raw materials used in this mixture apart that all chemical ingredients present are in compliance with Section 6 of the Chemical Substance Inventory, or are otherwise in compliance with TSCA.

Footnotes:

NA - Not Applicable  ND - Data Not Available  CS - Cancer Suspect  OX - Oxidizer  Cor - Corrosive

CALC - Calculated  EST - Estimated  STEL - Short Term Exposure Limit

TLV - Threshold Limit Value  PEL - Permissible Exposure Limit  TWA - Time Weighted Average  8 hours

HMSIS, PPI - Hazardous Material Identification System, Personal Protection Index

The data presented is true and correct to the best of our knowledge and belief, however, neither the seller nor preparer makes any warranty, express or implied, concerning the information presented. The user is cautioned to perform his own hazard evaluation and to rely upon his own determinations.

SCIENTIFIC INFORMATION SERVICES

Form essentially the same as OSHA Form 144 dated September 1983

Preparation date: July 15, 1991

Revised By:

TALEM, Inc.

(817) 335-1166

August 1990:

Section II: deleted minor component of Naphtha

Section III: revised §94 pressure and VOC

Section X: updated §93 chemicals, added state requirements and the California Proposition 65 Warning

September 1996: Section IX

3/97 - Section X - Shipping Name, Guide F - A.G. Lava, Inc.

High VOC Blanket and Roller Cleaner Used at The Dot Printer
MATERIAL SAFETY DATA SHEET

RESPONSIBLE PARTY: Bevande, Inc.

MANUFACTURER'S NAME: Bay International Chemical Products Div.
ADDRESS: 500 South Westwood Avenue
Addison, Illinois 60101

EMERGENCY PHONE: 800-424-3000
INFORMATION PHONE: 800-336-8276
NAME OF PREPARER: Bay Chemical Prod. Div.
DATE PRINTED: 2/20/93
REASON REVISED: Update; Supersedes All Previous Revisions.

REPORTABLE COMPONENTS

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<th>Weight</th>
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<tbody>
<tr>
<td></td>
<td>Percent</td>
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</table>

Petroleum Resin

CAS #: 64743-47-8
Weight: 2.3
68°F
%:

<table>
<thead>
<tr>
<th>CAS NUMBER</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Percent</td>
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Petroleum Resin

CAS #: 64743-95-6
Weight: 2.7
68°F
%

* 1,3,5-Trimethyl Benzene

CAS #: 81-82-6
Weight: 11
%

Dipropylene Glycol Butyl Ether

CAS #: 34580-84-8
Weight: 0.17
59°F
%

Sulfolane

CAS #: 1230-20-7
Weight: 3
%

* Indicates toxic chemicals subject to the reporting requirements of Section 313 of SARA Title III and of 40 CFR 372. All ingredients are listed on the EPA TSCA inventory.

BOILING RANGE/POINT: 355°F - 360°F
SPECIFIC GRAVITY (D26/4): .82
VAPOR DENSITY: 4.05 (Air = 1)
EVAPORATION RATE: Slow than 1-Butyl Alcohol
V.P.C. (EPA METHOD 24): 0.0 lb/ft³
VAPOR PRESSURE (GAR 6C @ 20°C): 2.6
SOLUBILITY IN WATER: Exceeds
APPEARANCE AND ODOR: Yellow Liquid - Petroleum Odor

FLASH POINT: 107°F
FLAMMABLE LIMITS IN AIR BY VOLUME: LOWER: 1.0%
Method Used: Tag CX
UPPER: 4.35

EXTINGUISHING AGENTS:
Foam, Alcohol Foam, CO2, Dry Chemical, Water Fog.

SPECIAL PRECAUTIONS:
As in any fire, wear self-contained breathing apparatus (SCBA/NAOSH approved) and full protective gear. Water may not be effective to extinguish fire. Use water spray to cool fire-exposed containers and to protect personnel.

UNUSUAL REACTS AND EXPLOSION HAZARDS:
Rivel as Petroleum Resin.
STABILITY:
Stable

CONDITIONS TO AVOID:
Avoid heat sources. Flame and other sources of ignition.

INCOMPATIBILITY MATERIALS TO AVOID:
Avoid mixing with strong oxidizing agents.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:
Burning will produce oxides of carbon and dense smoke.

HAZARDOUS POLYMERIZATION:
Will Not Occur.

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Breathing high concentrations of vapors will cause irritation of the nose and throat. Signs of central nervous system depression such as headache, dizziness, drowsiness and nausea may be experienced with overexposure.

EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Skin and eye contact may cause moderate to severe irritation.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Ingestion of this product will cause nausea, gastrointestinal irritation, diarrhea and possible damage to vital organs. Follow first aid procedures.

HEALTH HAZARDS ACUTE AND CHRONIC:
Repeated or abusive breathing of contaminated vapors may affect pulmonary, cardiovascular, and central nervous systems. Repeated skin contact will dry out and crack skin. Aspiration hazard if swallowed. Inhalation of product into the lungs can cause chemical pneumonitis.

Carcinogenicity:
NTP Carcinogen: No
IARC Monographs: No
OSHA Regulated: No

This product contains no known carcinogens.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
Skin contact may aggravate pre-existing dermatitis. Inhalation of vapors may aggravate pre-existing asthma like conditions.

EMERGENCY AND FIRST AID PROCEDURES:
INHALATION: Remove victim to fresh air. Give oxygen if breathing is labored. Apply artificial respiration if not breathing. Seek medical help. SKIN: Remove all contaminated clothing and shoes. Wash with soap and water. Do not reuse clothing and shoes until soiled. EYES: Flush eyes with plenty of water while removing any contact lenses. Hold eyelids open and continue flushing for at least 15 minutes. INGESTION: DO NOT INDUCE vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Seek medical attention immediately.
MATERIAL SAFETY DATA SHEET

RESPONSE 4800

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

Eliminate all ignition sources. Spills should be dealt and must be kept from entering the sewer. Soak up with absorbent or transfer liquid into a closed container for safe disposal. Use space-proof lids and explosion-proof equipment.

WASTE DISPOSAL METHODS:

If this product as supplied, becomes a waste, it is regulated by RCRA as ignitable waste, (PACT, #500). Suitable methods of disposal include reclamation and fuel blending. Contact a licensed Hazardous Waste Handler for more information.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE:

Containers should be grounded and bonded before transferring product. Store in the original closed container away from sunlight, excess heat, sparks, flames and other sources of ignition. Avoid skin or eye contact. Avoid breathing vapors. When transferring or using this product, wear proper personal protective equipment. Store and handle as a Combustible Liquid.

OTHER PRECAUTIONS/RESTRICTIONS:


RESPIRATORY PROTECTION:

The use of respiratory protection is advised when concentrations exceed the established exposure limits in SECTION 2. Depending on the airborne concentration, use a respirator with appropriate organic vapor cartridge (NIOSH approved).

VENTILATION:

If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits in SECTION 2, additional general ventilation or local exhaust systems may be required.

PROTECTIVE GLOVES:

Wear solvent resistant gloves made of nitrile or butyl rubber.

EYE PROTECTION:

Wear safety glasses with side shields.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

A personal protective rating of X means you must see your supervisor for guidance. OSHA regulations 29CFR Part 1910, Subpart I require employers to evaluate Personal Protective Equipment requirements in the workplace.

WORK/Hygienic PRACTICE:

Wash with soap and water after product contact with skin.

SECTION 8 - DISCLAIEMER

The information on this MSDS is believed to be accurate as of the date shown in SECTION 1. Since the use of this product is not under the control of DAY Chemical Products Division, it is the user's responsibility to determine what constitutes safe usage for particular product. This form may be reproduced in quantities necessary to meet your requirements.
High VOC Cleaner Used at Lithographix
MATERIAL SAFETY DATA SHEET

Tower Products, Inc., 2703 Fremensburg Ave., Easton, PA 18045
Information Telephone Number: 1-800-527-8626 or 610-253-6206
For Chemical Spill Emergency - Call 1-800-424-9300

SECTION 1: PRODUCT INFORMATION
Product Name: 396 U.V. WASH (Premium One-Step Ultraviolet Ink Cleaner)
D.O.T. Designation: Combustible Liquid, N.O.S. (Contains Naphtha, Solvent, Dipropylene Glycol Monomethyl Ether), NA1993, PGIII

SECTION 2: HAZARDOUS COMPONENTS/IDENTITY INFORMATION
HAZARDOUS COMPONENT CAS NO. %WT. OSHA* PEL ACGIH OTHER OSHA* TWA RATING STEL
Aromatic Hydrocarbon 64742-95-6 55-65 100ppm - -
Dipropylene Glycol 35490-94-8 45-55 100ppm 100ppm -
Monomethyl Ether 150ppm

*OSHA data is based on 1993 levels.

SECTION 3: PHYSICAL/CHEMICAL CHARACTERISTICS
Boiling Point: 305-340 degrees F.
Specific Gravity: (Water =1) 0.91
Vapor Pressure: (mmHg, calculated) 3.0 at 68 degrees F., 20 degrees C.
Melting Point: N/A
Vapor Density: (Air =1, calculated) <5
Solubility in Water: Negligible
Appearance & Odor: Light colored liquid, petroleum odor
Maximum VOC Content: 7.5 lbs. per gallon (900 grams per liter)
Maximum VOC% : 100% (EPA Method 24)

SECTION 4: FIRE AND EXPLOSION DATA
Flash Point (Tag Closed Cup Method): 115 degrees F.
Flammable Limits (Calculated): LEL: 0.6% UEL: 14%
Extinguishing Media: Use dry chemical or carbon dioxide.
Special Fire-fighting Procedures: Use self-contained breathing apparatus.
Unusual Fire and Explosion Hazards: Combustible liquid. Upon combustion, the product may form carbon monoxide and other organic compounds. Product containers may rupture from vapor pressure when exposed to heat from fire.

SECTION 5: REACTIVITY DATA
WARNING: Spontaneous combustion may occur when solvent soaked combustible materials (paper, cotton, etc.) are allowed to stand in confined areas.
Stability: Stable
Incompatibility: Avoid strong oxidizing agents.
Hazardous Decomposition or Byproducts: Carbon monoxide and other compounds during combustion.
Hazardous Polymerization: Will not occur.
Conditions to Avoid: Avoid exposure to high heat sources, electrical and welding arcs and open flame. Also avoid strong oxidizing agents.

SECTION 6: HEALTH HAZARD DATA
Route of Entry: Inhalation, Ingestion, Skin
Health Hazards (Acute): Overexposure may lead to central nervous system depression, leading to headaches, nausea and unconsciousness.
Health Hazards (Chronic): Overexposure in high concentrations may produce central nervous system depression.
Eye Contact: May lead to irritation.
Skin Contact: May lead to dermatitis.
Ingestion: May lead to vomiting.
Signs and Symptoms of Exposure: Overexposure may lead to dizziness, headaches, dermatitis and eye irritation.

Medical Conditions Aggravated by Exposure: Health studies have shown that many petroleum hydrocarbons pose potential health risks that vary from person to person, exposure to liquids, vapors, mists or fumes should be minimized.

Emergency and First Aid Procedures:
For Skin Contact: Flush with large volume of water for at least 15 minutes. Get immediate medical attention if necessary.
For Inhalation: Remove to fresh air. Get immediate medical attention.
For Eye Contact: Flush with large volume of water for at least 15 minutes. Get immediate medical attention.
For Ingestion: Get immediate medical attention. Do not induce vomiting.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING AND USE/REGULATORY INFORMATION
Steps to be taken in case material is released or spilled:
Minor Spills: Absorb material with ground clay, vermiculite, or similar absorbent material, then place into containers for removal.
Major Spills: Dike and contain spill. Eliminate potential sources of ignition, and shut off source of spill if possible. Remove liquid by chemical vacuum, absorbent, or other safe and approved method and place into containers for legal disposal. Flush area with water to remove residue, and remove flushed solutions as above.
Waste Disposal Method: Dispose of all waste in accordance with federal, state and local regulations.

Regulatory Information:
This information may be useful in complying with EPA Regulation 40CFR302. CERCLA—Section 102 and EPA Regulation 40CFR 372. SARA 313—This product contains approximately 2.0% cumene, 0.8% ethylbenzene, 2.0% xylene and 12% of 1,2,4 trimethylbenzene.

Precautions to be Taken in Handling and Storage: Ventilation in work area should be sufficient to maintain atmosphere with vapor level below lowest listed TLV in Section 2. If TLV's are exceeded, use a respirator with appropriate NIOSH approved cartridges or supplied air equipment. Keep containers closed when not in use. Combustible liquid--empty containers can be hazardous and contain explosive vapors.

HMIS: Health Hazard: 2 Flammability: 2 Reactivity: 0 Personal Protection: B

SECTION 8: CONTROL MEASURES
Respiratory Protection: Needed if TLV's in Section 2 are exceeded. Use a respirator with appropriate NIOSH approved cartridges or air supplied equipment.
Ventilation: Local and mechanical exhaust recommended. Avoid open electrical sources near product vapor areas.
Protective Gloves: Impermeable or chemical resistant gloves (consult safety equipment supplier).
Eye Protection: Splash goggles or face shield are recommended to protect against potential eye contact.
Other Protective Clothing/Equipment: Safety shoes and aprons recommended.
Work/Hygienic Practices: Do not take internally. Avoid skin contact, and wash skin after using products. Do not eat, drink or smoke in work area. Keep away from children.
High VOC Cleaner Used on Web Press at Anderson
MATERIAL SAFETY DATA SHEET

The Anchor MSDS information provided on this site is updated on a monthly basis and complies with OSHA's Hazard Communication Standard (29CFR 1910.1200) and the American National Standards Institute (ANSI) Standard for Material Safety Data Sheets (ANSI Z400.7).

Finished Goods Catalog
7422 - ENVIRONASH® 220-AUTO BLANKET/ROLLER WASH

Manufacturer Name
ANCHOR LITHKEMCO, A SUBSIDIARY OF FUJI HUNT

SECTION 1 - COMPANY IDENTIFICATION

Catalog / Sub-assembly Number: 7422
ANCHOR LITHKEMCO, A SUBSIDIARY OF FUJI HUNT
50 Industrial Loop North
Orange Park, FL 32073

TRANSPORTATION EMERGENCIES ( USA)
Inside US/Canada: 800-424-9100
Outside US/Canada: 703-527-3187
(accepts collect calls)

MEDICAL EMERGENCIES (USA)
Prostar: 877-935-7187

For Retailers
904-264-3100
General Info: 800-354-2100

FOR INDUSTRIAL USE ONLY.....USE ONLY AS DIRECTED........DO NOT TAKE INTERNALLY!

SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

Ingredients        CAS Number  Wt.%  OSHA PEL  ACGIH
                   (mg/m³)      (mg/m³)
Aliphatic Hydrocarbon 64742-88-7  10-20%  100ppm  100ppm
Acetone Hydrocarbon  64742-94-5  5-10%   100ppm  NE
Dipropylene Glycol Monomethyl Ether 34590-94-8  1-5%  100ppm; 100ppm;
                                                  1/2ppm   1/2ppm
Fatty Acid Ester    TSN 56-0384  60-80%  NE    NE
Naphthalene         91-20-3      0.1-1%  50, 75  52, 79
1,2,4-Trimethylbenzene  95-63-6  0.1-1%  NE    NE

NE:Not Established STEL:Short Term Exposure Limit C:Ceiling Limits

SECTION 3 - HAIRARDS IDENTIFICATION

EMERGENCY OVERVIEW

Appearance: Clear, amber liquid

Revision Date - 01/15/2002  Page 1
Odor: Mild solvent odor

Avoid contact with eyes, skin or clothing. Avoid breathing mist or vapor. Do not swallow. Wear chemical safety goggles & chemical resistant gloves. Wash thoroughly after handling. Keep container closed when not in use. Use only with adequate ventilation. May produce hazardous gases under fire conditions. During emergencies, wear equipment to protect eyes, skin and respiratory tract. Like or absorb spills to keep material and run-off from entering sewer or waterways. Use water spray to cool containers and disperse vapors. Consult MSDS for additional information.

HMIS: Health: 2 Flammability: 2 Reactivity: 0 Protection: B
NFPA: Health: 2 Flammability: 2 Reactivity: 0 Spec. Haz.: None

Hazard Rating: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe
A = Gloves B = Gloves & Goggles C = Gloves, Goggles & Apron
D = Face Shield, Gloves, Goggles & Apron

UN NO: 11993
DOT GUIDE: HGR Guide 128

Potential Health Effects:
Skin: Contact causes irritation.
Eyes: Causes irritation.
Inhalation: Irritant to respiratory tract and mucous membranes.
Ingestion: Ingestion of product may cause nausea and vomiting.

SECTION 4 - FIRST AID MEASURES

Eye Contact: Immediately flush with cool water for 15 minutes. Call a physician.
Skin Contact: In case of skin contact; wash with soap and water for 15 minutes. Call a physician.
Ingestion: In case of ingestion; do not drink water. Do not induce vomiting. Call a physician.
Inhalation: Immediately remove victim to fresh air. Call a physician.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: 165 deg F TCC
Autoignition Temperature: N/A deg F (CC)
Explosion Limits: Lower: N/A vol. %; Not Tested
Upper: N/A vol. %
OSHA Class IIA Combustible Liquid

Extinguishing Media:
Choose extinguishing media suitable for the surrounding materials, such as water spray, dry chemical, alcohol foam or carbon dioxide.

Unsuitable Extinguishing Media:
No restrictions on media based on knowledge of this material.

Fire Fighting Instructions:
Water spray should be used to cool fire exposed containers and to disperse un-ignited vapors. Use NIOSH/MSHA approved positive pressure self-contained breathing apparatus when material has ignited or becomes involved in a fire. Try to remove material containers from fire area if can be accomplished without risk to personnel.

Evacuate area and fight fire from a safe distance. Call your local fire department. Wear positive pressure breathing apparatus and protect eyes
and skin. Use water to cool fire-exposed containers, to protect personnel and to disperse vapors. Fire media run-off can damage the environment. Dike and collect media used to fight fire.

Revision Date - 01/15/2002 Page 2
SECTION 6 - ACCIDENTAL RELEASE MEASURES

Small Spills:
For small incidental spills and leaks wear chemical safety goggles, and
neoprene gloves and apron or coveralls. Isolate area of spill by digging.
Stop source of leak. Add dry absorbent. Clean up and place in an approved
D.O.T. container and seal. Wash all contaminated clothing before reuse, and
discard contaminated leather shoes.

Large Spills:
For larger spills requiring emergency response, neoprene boots and respiratory
protection may also be required. Follow OSHA regulations and MSHA
recommendations for respirator use (29 CFR 1910.134 and MSHA Pub. 97-104) and
emergency response (see 29 CFR 1910.120). Isolate area of spill by digging.
Stop source of leak. Add dry absorbent. Clean up and place in an approved
D.O.T. container and seal. Wash all contaminated clothing before reuse, and
discard contaminated leather shoes. Call the emergency telephone number
shown on the front of this sheet.

SECTION 7 - HANDLING / STORAGE

Handling:
Avoid contact with eyes, skin or clothing. Avoid breathing mist or vapor.
Do not swallow. Wear chemical safety goggles and neoprene gloves and apron.
Wash thoroughly after handling. Keep container closed when not in use. Use
only with adequate ventilation.

Storage:
Store in a cool, dry, well-ventilated area away from all sources of ignition.
Keep containers closed when not in use.

SECTION 8 - EXPOSURE CONTROL AND PERSONAL PROTECTION

Ventilation:
Good general ventilation should be sufficient for most processing operations.
Vent work area to ensure airborne concentrations are below the current
occupational exposure limits. Ten (10) or more room air changes per hour
containing a minimum of 15% fresh air will meet these requirements. Consult
ASHRAE 62-1989 for further requirements.

Personal Protective Equipment:
Respiratory Protection: If used under normal operating conditions and with adequate ventilation, respiratory protection is not required. However, refer to OSHA 29 CFR 1910.134.

Skin Protection: Chemical resistant gloves
Eye Protection: Chemical safety goggles

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, amber liquid

Odor: Mild solvent odor

Change in Physical State:
Boiling Point: 400 deg F
Melting Point: N/O deg F
Specific Gravity: 0.89 Water-1

Vapour Pressure: 0.20 mmHg @ 10C

Viscosity: N/A

Solubility in Water: Insoluble

pH Value: ND

VOC (lbs/gal): 2.20 (USEPA Method 24)
Non-Chemically Reactive

SECTION 10 - STABILITY AND REACTIVITY

Hazardous Polymerization:

Revision Date - 01/15/2003  Page 1
Hazardous polymerisation WILL NOT occur if product is used and stored as directed. Product is stable if used and stored as directed.

Hazardous Decomposition Products:
Oxides of Nitrogen; Oxides of Carbon

Materials and Conditions to Avoid:
Keep containers and liquids away from all potential sources of ignition.
Keep away from excess heat. Avoid contact with strong oxidizers, strong acids and strong bases.

SECTION 11 - TOXICOLOGICAL INFORMATION

Product Information
LD50 (oral, rat): >5000 mg/kg
Acute Overexposure:
Skin, eye, mucous membrane and respiratory tract irritant.
Chronic Overexposure:
Prolonged or repeated exposure can cause allergic skin reaction, anemia and weakness.
Ingredient Information:
Swallowing of hydrocarbons can cause lung damage. Repeated exposure to hydrocarbons can cause dermatitis. Chronic overexposure to Dipropylene Glycol Monomethyl Ether in high concentrations has caused minor kidney and liver damage in laboratory animals. 'In vitro' mutagenicity studies of Dipropylene Glycol Monomethyl Ether were negative.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity Data: No Data Available
Chemical Fate Data: No Data Available

SECTION 13 - DISPOSAL CONSIDERATIONS

Hazardous Waste Characteristic:
None
Recommendation:
Dispose of contaminated product, empty containers and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures. Discharge of processing effluent to the sewer may require a permit. DO NOT discharge effluent solutions to septic systems.

SECTION 14 - TRANSPORTATION INFORMATION

Ground Shipping Information
Proper Shipping Name: Combustible Liquid, N.O.S. (contains Petroleum Naphtha)
Hazard Class: 3
UN/NA Number: 1140/99
Packing Group: PIIII
Air (ICAO/IATA) Shipping Information
Proper Shipping Name: Chemicals, N.O.S., Not D.O.T. regulated.
Hazard Class: None
UN No: None
Packing Group: None
Subsidiary Risk: None
UN/DOT Labels Needed: Combustible
International Maritime Organisation (IMO) Additional Shipping Class:
IMDG Code: Not Applicable
Amdt. Code: Amdt. B/A
RIT Code: Not Applicable
Product is labeled in accordance with US D.O.T. 49 CFR.

Further information:
Revision Date - 01/15/2002
SECTION 15 - REGULATORY INFORMATION

**Note: The ingredient information listed in this section is provided for reporting requirements as dictated by USEPA, state and local regulation. If ingredient is listed in this section but not in Section 2, then the concentration of this ingredient is below de minimis (less than 0.1%).

U.S. FEDERAL REGULATIONS:
311 = SARA Title III Section 311 (40 CFR 372 -- Toxic Release Inventory)
335 = SARA Title III Section 335 (40 CFR 373 -- Extremely Hazardous Substance)
302 = SARA Title III Section 302 (40 CFR 302 -- Hazardous Substance List)
CWA = Clean Water Act Priority Pollutants List
CAA = Clean Air Act 1990 Hazardous Air Contaminants
NAP = Clean Air Act - NAP Rule - NAPs

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<td>N</td>
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<td>N</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Aromatic Hydrocarbon</td>
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<td>N</td>
<td>N</td>
<td>N</td>
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<tr>
<td>Dipropylene Glycol Monomethyl Ether</td>
<td>34690-94-8</td>
<td>N</td>
<td>N</td>
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<td>N</td>
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<tr>
<td>Fatty Acid Ester</td>
<td>MDN</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<td>Y</td>
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<tr>
<td>Naphthalene</td>
<td>91-20-3</td>
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<tr>
<td>1,1,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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</tr>
</tbody>
</table>

TECA 12(b) Export Notification
CAS Number | CHEMICAL NAME | N-AMYL ACETATE | DIMETHYL MTHALATE (DBP)
<table>
<thead>
<tr>
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<tbody>
<tr>
<td>626-63-7</td>
<td>N-AMYL ACETATE</td>
<td>DIMETHYL MTHALATE (DBP)</td>
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TOXICITY INFORMATION:
ICRC1 = IARC Group 1 Human Carcinogens List
ICRC2 = IARC Group 2 Human Carcinogens List (limited human data)
ICRC3 = IARC Group 3B Human Carcinogens list (sufficient animal data)
NTP = NTP Known Carcinogens List
OSHA = OSHA Known Carcinogens List

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>CAS Number</th>
<th>ICRC1</th>
<th>ICRC2</th>
<th>ICRC3</th>
<th>NTP</th>
<th>OSHA</th>
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<tr>
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<td>64742-88-7</td>
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<tr>
<td>Aromatic Hydrocarbon</td>
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<td>N</td>
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<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
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<tr>
<td>Naphthalene</td>
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<td>N</td>
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<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
<td>Y</td>
</tr>
</tbody>
</table>

STATE REGULATIONS:
FL = Florida Hazardous Substance List | MA = Massachusetts Right-To-Know List
MI = Michigan Critical Materials List | MN = Minnesota Hazardous Substance List
NJ = New Jersey Right-To-Know List | PA = Pennsylvania Right-To-Know List

<table>
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<tr>
<th>Ingredients</th>
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<th>NJ</th>
<th>MI</th>
<th>MA</th>
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</tbody>
</table>

Revision Date - 01/15/2002
High VOC Cleaner Used on Sheet Fed Presses at Anderson
MATERIAL SAFETY DATA SHEET

PRODUCT CODE: H01057

SECTION 1 - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: VARN PRODUCTS
ADDRESS: 905 S. WESTWOOD AVENUE
ADDISON, ILLINOIS 60101

EMERGENCY PHONE: 800-824-9300
INFORMATION PHONE: 800-335-8276

DATE PRINTED: 08/29/2001
NAME OF PREPARER: Varn Products Co.
REASON REVISED: Custom Product - Supersedes All Previous Revisions.

SECTION 2 - HAZARDOUS INGREDIENTS/SARA III INFORMATION

REPORTABLE COMPONENTS

<table>
<thead>
<tr>
<th>CAS NUMBER</th>
<th>VPD</th>
<th>PPM</th>
<th>WEIGHT PERCENT</th>
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<tbody>
<tr>
<td>111-76-2</td>
<td>16.8</td>
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</tr>
<tr>
<td>111-76-2</td>
<td>1.9</td>
<td>40%</td>
<td></td>
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</tbody>
</table>

* Indicates toxic chemical(s) subject to the reporting requirements of Section 313 of E R A Title III and of 40 CFR 372.
All ingredients are listed on the EPA TSCA inventory.

SECTION 3 - PHYSICAL/ChemICAL CHARACTERISTICS

BOILING RANGE/POINT: 207°F - 242°F

SPECIFIC GRAVITY (H20=1): 0.89

VAPOR DENSITY: Heavier than air.

EVAPORATION RATE: Slower than n-Butyl Acetate.

V.I.C. (EPA METHOD 24): 7.38 mg/l

LIQUID PRESSURE (mm Hg @ 20°C): 4.1

SOLUBILITY IN WATER: 100%

APPEARANCE AND ODOR: Clear Liquid - Mild Odor

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 110°F

METHOD USED: TAC CC

FLAMMABLE LIMITS IN AIR BY VOLUME: LOWER: 1.0%

EXTINGUISHING MEDIA: Alcohol Foam, CO2, Dry Chemical.

SPECIAL FIREFIGHTING PROCEDURES:
As in any fire, wear self-contained breathing apparatus (MSHA/NIOSH approved) and full protective gear. Water may not be effective to extinguish fire. Use water spray to cool fire-exposed containers and to protect personnel.

UNUSUAL FIRE AND EXPLOSION HAZARDS:
Treats as Petroleum Fire.
SECTION 5 - REACTIVITY DATA

STABILITY:
Stable

CONDITIONS TO AVOID:
Avoid heat, sparks, flames and other sources of ignition.

INCOMPATIBILITY (MATERIALS TO AVOID):
Avoid mixing with strong oxidizing agents.

HAZARDOUS DECOMPOSITION OR BYPRODUCTS:
Burning will produce oxides of carbon and carbon dioxide.

HAZARDOUS POLYMERIZATION:
Will Not Occur.

SECTION 6 - HEALTH HAZARD DATA

INHALATION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Breathing high concentrations of vapors will cause irritation of the nose and throat. Signs of central nervous system depression such as headache, dizziness, dizziness and nausea may be experienced with overexposure.

SKIN AND EYE CONTACT HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Skin and eye contact may cause moderate to severe irritation.

SKIN ABSORPTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Skin contact will result in absorption and potentially contribute to the overall exposure to the chemical 2-Butoxy ethanol.

INGESTION HEALTH RISKS AND SYMPTOMS OF EXPOSURE:
Ingredients in this product are toxic. Ingestion may cause nausea, moderate gastrointestinal irritation, diarrhea and possible damage to vital organs. Follow first aid procedures.

HEALTH HAZARDS (ACUTE AND CHRONIC):
Repeated or abusive breathing of concentrated vapors may affect pulmonary, cardiovascular, and central nervous system. Repeated skin contact will dry out and crack skin.

CARCINOGENICITY: NTP CARCINOGEN: No  IARC MONOGRAPHS: No  OSHA REGULATED: No

This product contains no known carcinogens.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:
Skin contact may aggravate pre-existing dermatitis. Inhalation of vapors may aggravate pre-existing asthma like conditions.

EMERGENCY AND FIRST AID PROCEDURES:
EYES: Hold eyelids open and flush with water for 15 minutes. Contact physician if irritation persists. SKIN: Wash with soap and water. INGESTION: If victim is fully conscious, induce vomiting as directed by medical personnel. Seek medical attention immediately. INHALATION: Move victim to fresh air. Give oxygen if breathing is labored.
MATERIAL SAFETY DATA SHEET

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:
Eliminate all ignition sources. Spills should be dried and must be kept from entering the sewer. Soak up with absorbent or transfer liquid into a closed container for later disposal. Use spark-proof tools and explosion proof equipment.

WASTE DISPOSAL METHOD:
If this product as supplied, becomes a waste it is regulated by RCRA as ignitable Waste, EPA I.D. #D007. Suitable methods of disposal include reclamation and fuel blending. Contact a Licensed Hazardous Waste Handler for more information.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING:
Containers should be grounded and bonded before transferring product. Store in the original closed container away from sunlight, excess heat, sparks, flames and other sources of ignition. Avoid skin or eye contact. Avoid breathing vapors. When transferring or using this product, wear proper personal protective equipment. Store and handle as a Combustible Liquid.

OTHER PRECAUTIONS/DOT INFORMATION:

SECTION 8 - CONTROL MEASURES

RESPIRATORY PROTECTION:
The use of respiratory protection is advised when concentrations exceed the established exposure limits in SECTION 2. Depending on the airborne concentration, use a respirator with appropriate organic vapor cartridge (NIOSH approved).

VENTILATION:
If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits in SECTION 2, additional general ventilation or local exhaust systems may be required.

PROTECTIVE GLOVES:
Wear solvent resistant gloves made of butyl or nitrile rubber.

EYE PROTECTION:
Wear safety glasses with side shields.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:
A personal protective rating of X means you must see your supervisor for guidance. OSHA regulations (29CFR Part 1910).

WORK/HYGIENIC PRACTICES:
Wash with soap and water after product contact with skin.

SECTION 9 - DISCLAIMER

The information on this MSDS is believed to be accurate as of the date shown in SECTION 1. Since the use of this product is not under the control of Varn, it is the user’s responsibility to determine what constitutes safe usage for a particular product. This form may be reproduced in quantities necessary to meet your requirements.

TOTAL P. 84
High VOC Cleaner Used at Tedco
**SECTION I: IDENTIFICATION**

**PRODUCT CODE**: LC-07

**Chemical Family**: Blend of aromatic hydrocarbons and glycol ether solvents with non-hazardous proprietary ingredients.

**DOT Classification**: Paint related material, 3 UN 1263 III

**SECTION II: HAZARDOUS INGREDIENTS**

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>%</th>
<th>TLV</th>
<th>CAS No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic hydrocarbons</td>
<td>30-60</td>
<td>100</td>
<td>64742-55-6</td>
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<tr>
<td>Glycol ether</td>
<td>30-60</td>
<td>100</td>
<td>3459-94-8</td>
</tr>
</tbody>
</table>

**SECTION III: PHYSICAL PROPERTIES**

- **Boiling Point**: 381°F
- **Partial Pressure (mmHg @ 20°C)**: 2.3
- **Density (Lbs/Gal)**: 7.5
- **Specific Gravity**: 0.91
- **Solubility in Water**: Appreciable
- **Appearance and Odor**: Clear, lavender liquid with a mild odor
- **Volatile Organic Compounds (VOC)**: 6.7 lbs/gal (799 gms) EPA Method 24

**SECTION IV: FIRE AND EXPLOSION HAZARDS**

- **Flash Point (TCC)**: 110°F
- **Explosive Limits in Air (% by Volume)**: Lower Limit (LFL) = 1.0%, Upper Limit (ULFL) = 14.0%
- **Extinguishing Media**: Alcohol resistant foam, carbon dioxide, dry chemical
- **Special Fire Fighting Procedures**: Use self-contained breathing apparatus and protective clothing.
- **Material is highly volatile. Vapors may travel at ground level and be ignited by pilot lights, sparks, heaters, electrical motors, etc.**
SECTION V - HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL: Not established
THRESHOLD VALUE: Not established

EFFECTS OF OVEREXPOSURE:
EYES: Exposure to liquid or vapor causes eye irritation. Symptoms may include stinging, tearing, redness and swelling.

SKIN: Exposure may cause mild skin irritation. Prolonged or repeated exposure may dry the skin. Symptoms may include redness, burning, drying, cracking and skin burns. Pre-existing skin disorders may be aggravated by exposure to this material. Absorption is possible but harmful effects are not expected from this route of exposure under normal conditions of handling and use.

BREATHING: Exposure to vapors or mist is possible. Short-term inhalation toxicity is low. Breathing small amounts during normal handling is not likely to cause harmful effects; breathing large amounts may be harmful. Symptoms are more typically seen at air concentrations exceeding the recommended exposure limits. Symptoms of exposure may include:
- Irritation of nose, throat, respiratory tract
- Pre-existing lung disorders, e.g. asthma-like conditions, may be aggravated by exposure to this material resulting in cough, central nervous system (CNS) depression (dizziness, weakness, drowsiness, fatigue, nausea, headache, unconsciousness) and other CNS effects (coma).

SWALLOWING: Single dose oral toxicity is low. Swallowing small amounts during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful. Symptoms may include:
- Throat irritation, gastrointestinal irritation (nausea, vomiting, diarrhea), central nervous system depression (dizziness, weakness, fatigue, nausea, headache, unconsciousness), high blood sugar, coma. This material can enter the lungs during swallowing or vomiting and cause lung inflammation and/or damage.

FIRST AID:
If on skin: Remove contaminated clothing, wash exposed area with soap and water.
If symptoms persist, seek medical attention. Launder clothing before re-use.

If in eyes: If symptoms develop, move individual away from exposure and into fresh air. Flush eyes with water for at least 15 minutes while holding eyelids apart. If symptoms persist, seek medical attention.

If swallowed: DO NOT INDUCE VOMITING. This material is an aspiration hazard. If individual is drowsy or unconscious, place on left side with head down. Seek medical attention. If possible, do not leave individual unattended.

If breathed: If symptoms develop, immediately move individual away from exposure and into fresh air. Seek medical attention. Keep individual warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.

"NOTE TO PHYSICIAN": This material (or a component) has produced hyperglycemia and ketosis following substantial ingestion.

PRIMARY ROUTES OF ENTRY: Inhalation, skin absorption, skin contact, eye contact.
EFFECTS OF CHRONIC EXPOSURE: This material (or a component) shortens the time of onset or worsens the liver and kidney damaged induced by other chemicals. This material (or a component) has been shown to cause harm to the fetus in laboratory animal studies; harm to the fetus occurs only at exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals and may aggravate pre-existing disorders if these organs in humans: mild, reversible liver effects and mild, reversible kidney effects.

STABILITY: Stable under normal conditions of storage and handling
INCOMPATIBLE MATERIALS: Avoid contact with strong oxidizing agents and strong acids
HAZARDOUS POLYMERIZATION: Cannot occur
SECTION VII - SPILL OR LEAK PROCEDURE

STEPS TO BE TAKEN IN CASE OF RELEASE OR SPILL

Small spill: Absorb liquid on vermiculite, floor absorbent, or other absorbent material and transfer to hood
Large spill: Eliminate all ignition sources (flares, flames, electrical sparks). Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source. Prevent spill from entering drains, sewers, streams or other bodies of water. Prevent from spreading. If runoff occurs, notify authorities as required. Absorb unrecoverable product. Transfer contaminated absorbent, soil and other materials to approved containers for disposal.

WASTE DISPOSAL METHOD

Small spill: Dispose of in accordance with all local, state and federal regulations
Large spill: Dispose of in accordance with all local, state and federal regulations

SECTION VIII - PROTECTIVE EQUIPMENT TO BE USED

RESPIRATORY PROTECTION
If workplace exposure limit(s) of product (or a component) is exceeded (see Section II), a NIOSH/MSHA air supplied respirator is advised. In absence of proper environmental control, DSHA regulation also permits other NIOSH/MSHA respirators (negative pressure type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

VENTILATION
Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure levels below TLVs (see Section II) or to below level of overexposure (from known, suspected or apparent adverse effects).

PROTECTIVE GLOVES
Wear resistant gloves (consult safety equipment supplier).

EYE PROTECTION
Chemical splash goggles in compliance with OSHA regulations are advised. However, OSHA regulations also permit other types of safety glasses (consult safety equipment supplier).

OTHER PROTECTIVE EQUIPMENT
To prevent repeated or prolonged skin contact, wear impenetrable clothing and boots.

SECTION IX - SPECIAL PRECAUTIONS OR OTHER COMMENTS

Containers of this material may be hazardous when emptied since emptied containers retain product residues (vapor, liquid and/or solids). All hazard precautions given in this sheet must be observed.

WARNING!! Sudden release of hot organic vapors or mists from processor equipment operating at elevated temperatures and pressures, or sudden ingress of air into vacuum equipment may result in ignitions without the presence of obvious ignition sources. Published “autoignition” or “ignition” temperature values cannot be treated as safe operating temperatures in chemical processes without analysis of the actual process conditions. Any use of this product at elevated process temperatures should be thoroughly evaluated to establish and maintain safe operating conditions.

THE INFORMATION ACCUMULATED HEREBIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE AND SUITABLE TO THEIR CIRCUMSTANCES.
High VOC Cleaner Used at Huhtamaki
MATERIAL SAFETY DATA SHEET

PRODUCT NAME: KASH BB
PRODUCT CODE: B211
CHEMICAL NAME: BLANET AND ROLLER WASH

SECTION I - MANUFACTURER IDENTIFICATION

MANUFACTURER'S NAME: PRINTERS' SERVICE
ADDRESS: 26 Blanchard Street
Newark, New Jersey 07105

EMERGENCY PHONE: 1-800-424-9300
INFORMATION PHONE: 1-973-589-7800

LAST REVISION: 06/25/97
DATE REVISED: 02/17/99
PREPARER: ENVIRONMENTAL DEPT.

SECTION II - HAZARDOUS INGREDIENTS/GARA III INFORMATION

REPORTABLE COMPONENTS

* 1-BUTYLTHIEYL

CAS NUMBER: 354-74-2

Vapor Pressure: 5.6 mm Hg at 20°C

Boiling Point: 29°F

DENSITY: 1.74 g/L @ 20°C

PH: 6.0

Flash Point: 10°F

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS

BOILING POINT: 29°F

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 10°F

SECTION V - REACTIVITY DATA

STABILITY: YES

IF NO CONDITIONS:

INCOMPATIBILITY (MATERIALS TO AVOID): YES

IF USED WITH CHEMS: STRONG ACIDS

HAZARDOUS DECOMPOSITION OR BYPRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE ON IGNITION

HAZARDOUS POLYMORPHISMS: NONE

SECTION VI - HEALTH HAZARD DATA

INDICATIONS OF EXPOSURE:

EYE CONTACT AND SYMPTOMS OF EXPOSURE: REDNESS OR BURNING IRRITATION
SKIN CONTACT AND SYMPTOMS OF EXPOSURE: REDNESS OR ITCHING
INHALATION AND SYMPTOMS OF EXPOSURE: HEADACHE, DIZZINESS, NAUSEA
INGESTION AND SYMPTOMS OF EXPOSURE: SEVERE GASSTITSTUTION, NAUSEA, VOMITING AND DIARRHEA

EMERGENCY AND FIRST AID PROCEDURES

IF IN EYES, RINSE WITH WATER FOR 15 MINUTES, EYE LIDS, SEE A DOCTOR.
IF INGESTED, RINSE WITH WATER.
IF INHALED, REMOVE TO FRESH AIR, IF UNCONSCIOUS, USE ARTIFICIAL RESPIRATION, SEE A DOCTOR IMMEDIATELY TO TPM STOMACH.

ENVIRONMENTAL HAZARDS (ACUTE AND CHRONIC):
MATERIAL SAFETY DATA SHEET

WME BB

EFFECT OF ORGANIC EXPOSURE: NONE
EFFECT OF INHALATION EXPOSURE: NONE

IN ALL CASES OF EMERGENCY AND FIRST AID, WE STRONGLY RECOMMEND A DOCTOR BE SEEN.

CARCINOGENICITY: NTP CARCINOGENICITY: NO IARC MONOGRAPHS NO OSHEA REGULATED: NO
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: DERMATITIS MAY AGGRAVATE EXISTING LIVER AND KIDNEY ALKELS.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

PRECAUTIONS TO BE TAKEN IN CASE MATERIAL IS EMERGENT OR SPILLED: VENTILATE AREA. KEEP AWAY FROM STRONG ACIDS, BASES, ALKALS, AND ORGANIC SOLVENTS. DO NOT USE SPONGE OR BULK. KEEP OUT OF REACH OF CHILDREN. KEEP CONTAINERS TIGHTLY CLOSED AND OUT OF THE REACH OF CHILDREN.

PRODUCT SHOULD BE PLACED IN SEALED METAL DRUMS FOR DISPOSAL IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VIII - CONTROL MEASURES

EXPOSURE CONTROL AND PERSONAL PROTECTION:

RESPIRATORY PROTECTION: USE AN AIR-MASK WITH APPROPRIATE CARTRIDGES OR SELF-CONTAINED SUPPLIED AIR EQUIPMENT.

VENTILATION: USE VENTILATION SYSTEM TO INOCULATE USE ADVERTISED SYSTEMS, ESPECIALLY LOCAL VENTILATION. IF THE VAPOR LEVEL CAN APPROACH THE LEL, LOWER EXPLOSION LIMIT, USE EXPLOSION PROOF SYSTEMS.

PROTECTIVE CLOTHING: USE SOLVENT-RESISTANT CLOTHES.

EYE PROTECTION: USE SAFETY GLASSES OR GOGGLES.

OTHER PROTECTIVE EQUIPMENT OR CLOTHING: NONE.

WORK/HYGIENIC PRACTICES: WASH SKIN/CLONES IF THEY COME IN CONTACT WITH THE PRODUCT.

GROUNDED SHIELDING:

CLASSIFICATION: CHEMICALS - N.O.S.

SECTION IX - SHIPPI NG INFORMATION

SECTION X - DISCL AMER

THE INFORMATION AND RECOMMENDATIONS HEREIN HAVE BEEN COLLECTED FROM OUR RECORDS AND OTHER SOURCES BELIEVES TO BE RELIABLE. NO WARRANTY, GUARANTEE OR REPRESENTATION IS MADE BY PRINTERS' SERVICE AS TO THE ACCURACY OF ANY REPRESENTATION. THE ABSENCE OF DATA INDICATES ONLY THAT THE DATA IS NOT REPEATED AVAILABLE TO US. ADDITIONAL SAFETY MEASURES MAY BE REQUIRED UNDER PARTICULAR OR EXCEPTIONAL CONDITIONS OF USE.

WITH REGARD TO THE MATERIALS THEMSELVES, PRINTERS' SERVICE MAKES NO WARRANTY OF ANY KIND WHATSOEVER, EXPRESS OR IMPLIED, AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE ARE HEREBY DISCLAIMED.
Low-VOC Cleaners Used and Tested at Participating Facilities
Low-VOC Cleaner Used at Los Angeles Times
MATERIAL SAFETY DATA SHEET
May be used to comply with
OSHA’s Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements.

IDENTITY (As used on label and list) SUPER CLEAN BW

SECTION I
Manufacturer’s Name: SUPER CHEM CORP.
Address: 2635 W. Woodland Drive
Anahiem, CA 92801

Emergency Telephone Number: (714) 995-5988
Telephone Number For Information: (714) 995-5988
Data Prepared: Revised: March 11, 2001
Signature Of Prepared: (Optional)

SECTION II - HAZARDOUS INGREDIENTS / IDENTIFY INFORMATION

Hazardous Components
Specific Chemical Identity, Common Names
Ethylphenoxypolyethoxy - Ethanol
CAS #: 9035-13-5 None
D-Limonene
CAS #: 5989-27/5 None

SECTION III - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: >200F Specific Gravity (H2O = 1) 0.96
Vapor Pressure (mm Hg): 20C Melting Points: NA
Vapor Density (AIR = 1): N.E. Evaporation Rate (Butyl Acetate = 1): ≤1
Solubility in water: Emulsifiable VCC: 3.65 lb per gal 495 gpm per liter
Appearance and Odor: Blue Green Clear Liquid with Citrus Odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): 180F Flammable Limits: LEL: 0.7 UEL: 8.1
Extinguishing Media: Class B fires: Foam Co2 or Dry Compound
Special Fire Fighting Procedures: If confined in a container, cool exterior with water spray

Unusual Fire and Explosion Hazards: Dense black smoke produced
SECTION V - REACTIVITY DATA

Stability: Stable
Unstable:

Conditions to avoid:
XX High heat & direct sunlight

Incompatibility (Materials to avoid): Oxidizing agents, acids, peroxides, halogens

Hazardous Decomposition or Byproducts:

Hazardous Polymerization: May Occur:
Will Not Occur: XX High temp. contact with reactive monomer

SECTION VI - HEALTH AND HAZARD DATA

Route of Entry:
Inhalation
Skin
Ingestion

Health Hazards (Acute & Chronic): Over exposure may irritate eyes and mucus membranes, may cause localized itching on skin

Carcinogenicity: NTP?: No
IARC Monographs?: No
OSHA Regulated?: NO

Signs & Symptoms of Exposure: Slight irritation or itching

Medical Conditions Generally Aggravated by Exposure: None Known

Emergency & First Aid Procedures:
Flush eyes with water for at least 15 minutes and wash from skin with soap and water. If irritation persists see a physician. See Physician if ingested.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled:
Keep open flames and sparks away. Contain and absorb with sand or earth

Waste Disposal Method:
Dispose spent absorbent in sealed containers in accordance to Federal, State and Local regulations.

Precautions to be Taken in Handling & Storage:
Store in cool well ventilated place away from reactive chemicals, spark sources & open flames. Keep containers closed.

SECTON VIII - CONTROL MEASURES

Respiratory Protection (specify type): None

Ventilation:
Local Exhaust: Adequate Special: None
Mechanical (general): Recommended Other:

Protective Gloves: Rubber Gloves
Eye Protection: Safety Glasses
Protective Clothing or Equipment: Synthetic apron and boots

Work/Hygienic Practices: Safety shower & Eye wash should be nearby
Low-VOC Daraclean 236 Cleaner Tested at Los Angeles Times
MATERIAL SAFETY DATA SHEET
DARACLEAN® 236

1. IDENTIFICATION

Company: MAGNAFLUX
Address: 3020 West Lake Avenue, Glenview, Illinois 60025
Telephone No.: (847) 697-5200 (CHS-Magnetics Emergency Number - 1-800-431-6200)
Product Use: Aqueous alkaline cleaner
Producer: 5-gallon pail, 55-gallon drum
AFLA Rating: Health 2, Flammability 0, Reactivity 0
CVV: None
Revision Date: October 23, 2001

2. INGREDIENTS

Hazardous Ingredients: 

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>% by Weight</th>
<th>OSHA PEL*</th>
<th>ACGIH TLV**</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trichloroethylene</td>
<td>100-98</td>
<td>1-5</td>
<td>Not available</td>
</tr>
</tbody>
</table>

This product contains no hazardous chemicals at 1% or more listed in 29 CFR 1910 Subpart Z, or ACGIH Threshold Limit Values. Also this product contains no carcinogens as 0.1% or more listed in ATR Annual Report of Carcinogens. IARC Monographs, or 29 CFR 1910 Subpart Z.

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW
Bland, nonflammable. Thin liquid which may irritate the skin and eyes.

Skin & Eye Irritants to Avoid Exposure

Inhalation: Irritation/irritation if material becomes airborne.

Eye: Irritation upon direct contact.

Skin: Irritation upon direct contact.

4. FIRST AID

Skin Contact: Wash off with soap and water. Use soapscale toner.

Eye: Rinse eyes with copious amounts of water

Inhalation: None known

Ingestion: None known

5. FIRE HAZARD

Conditions of Ignitability: None
Flashpoint: None
Flammable Limits in air: None
Extinguishing Agents: Carbon dioxide, dry chemical, foam, acid. Water if possible. Special fire fighting procedure: None

6. ACCIDENTAL RELEASE MEASURES

For Small Spills: Sweep up, or absorb with sand or other absorbent material. Collect waste in sealed containers.

For Large Spills: Place area to prevent spreading. Shovel or pump to drum or sewage tank. Absorb residual material with sand, or other absorbent material. Wash area with soap and water. Area will be slippery until cleaned. Disposal of all product wastes and water rinse in accordance with current local and Federal regulations.

7. HANDLING AND STORAGE

- Does not readily become flammable; in operations where it does, if general ventilation or local exhaust is inadequate, persons exposed to mist should wear approved breathing devices.
- Wear protective gloves if direct contact likely; wear eye protection.
- Store product at 50-90°F in a well-ventilated area.
- Do not mix with strong or strong oxidizing compounds (e.g. HF 2458, H164)

Page 1 of 2 DARACLEAN® 236
<table>
<thead>
<tr>
<th>Exposure Control/Hygiene</th>
<th>Protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>Respiratory protection</td>
<td>None</td>
</tr>
<tr>
<td>Ventilation</td>
<td>None</td>
</tr>
<tr>
<td>Protective gloves</td>
<td>Mechanical (general) sufficient</td>
</tr>
<tr>
<td>Eye protection</td>
<td>None</td>
</tr>
<tr>
<td>Waste disposal</td>
<td>Avoid breathing spray inlet</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Physical Properties</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial octanol power:</td>
</tr>
<tr>
<td>Water solubility:</td>
</tr>
<tr>
<td>pH of concentrated:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Stability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incompatibility:</td>
</tr>
<tr>
<td>Reactivity:</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicological Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains no known or suspected carcinogens listed with OSHA, NRC, NTP, or ACGIH.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Ecological Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>No data is available. It dissolves into water and is biodegradable. Its low vapor pressure may exempt it from VOC standards.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Disposal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Disposal according to Federal, State and Local laws and 40 CFR.</td>
</tr>
<tr>
<td>RCRA: Not a hazardous waste.</td>
</tr>
<tr>
<td>U.S. EPA Waste Number: None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>DOT: 49 CFR 172.101 Hazardous Materials Table:</td>
</tr>
<tr>
<td>Proper shipping name: Bulk</td>
</tr>
<tr>
<td>Hazard class or division: None</td>
</tr>
<tr>
<td>Shipping Group: None</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Regulatory Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Title 49 CFR: All ingredients are listed in Title 49 CFR, Appendix V.</td>
</tr>
<tr>
<td>CERCLA: Not reportable</td>
</tr>
<tr>
<td>SARA Title I, Section 302: Contains material(s) listed.</td>
</tr>
<tr>
<td>SARA Title III, Section 610: Contains material(s) listed.</td>
</tr>
<tr>
<td>Warnings (Canada): Not a controlled product.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Other Information</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revision Date: April 5, 2001</td>
</tr>
<tr>
<td>Prepared by: Tomas Simon, R&amp;D Manager</td>
</tr>
</tbody>
</table>
Low-VOC ES-219 Cleaner Tested at Los Angeles Times
MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade Name: 219-E5 Ester Emulsion
Generar Name: Water Based Emulsion Cleaner

Manufacturer: Siebert, Inc.
Address: 5134 West 47th Street
City: Lyons State: IL Zip: 60534

DOT Hazard Classification: Not Regulated
NFPA Codes: Health - 0 Flammability - 0 Reactivity - 0
HMIS Codes: Health - 1 Flammability - 0 Reactivity - 0 Personal Protection - B

II. HAZARDOUS INGREDIENTS

If present, IARC, NTP, and OSHA carcinogens and chemicals subject to the reporting requirements of SARA Title III Section 313 are identified in this section.

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS Number</th>
<th>%wt</th>
<th>TLV</th>
<th>STEL</th>
<th>SARA TITLE III</th>
</tr>
</thead>
<tbody>
<tr>
<td>FAO ester</td>
<td>Various</td>
<td>20 to 25</td>
<td>None established</td>
<td>None established</td>
<td>No</td>
</tr>
<tr>
<td>Surfactant</td>
<td>Various</td>
<td>15 to 30</td>
<td>None established</td>
<td>None established</td>
<td>No</td>
</tr>
<tr>
<td>Geno amide</td>
<td>68003-42-9</td>
<td>6 to 15</td>
<td>None established</td>
<td>None established</td>
<td>No</td>
</tr>
</tbody>
</table>


III. PHYSICAL DATA

Boiling Point @ 760 mm Hg: 308 - 335°F
Vapor Pressure @ 10°F: <0.1 mm Hg
Specific Gravity @ 68°F: 0.92
Water Solubility (%): Soluble
Specific Vapor Density (air=1): <1.0
% Volatile by Volume: 53.0
% Volatile Organic Compound(s): <1.0
Appearance: Clear golden liquid
Odor: Typical organic odor

IV. FIRE AND EXPLOSION DATA

Flash Point (Method): >300°F (FCC)
Explosion Limits: LEI - NE UEL - NE
Extinguishing Media: Water fog, carbon dioxide or dry chemical.
Special Fire Fighting Procedures: Wear self-contained breathing apparatus when fighting chemical fires.
Unusual Fire and Explosion Hazards: Fine spray/mists may be combustible at temperatures below normal flash point.

V. HEALTH HAZARD DATA

Eyes: May cause temporary irritation, redness, tearing, blurred vision. Contact lenses must not be worn when possibility exists for eye contact due to spraying liquid or airborne particles.
Skins - Prolonged or repeated contact may cause irritation.

Breathing - Excessive inhalation of vapors may cause nasal and respiratory irritation. Central nervous system effects including dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.

Swallowing - Can cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

First Aid/Emergency Procedures

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet and get medical attention.

Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

Eyes: Flush with copious amounts of water. Get medical attention.

Ingestion: Do not induce vomiting. If large quantity is swallowed, give lukewarm water (ping). NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Get medical attention immediately. Risk of damage to lungs exceeds poisoning risk.

Primary Entry Route(s): Inhalation, skin contact.

Chronic Health Effects: Chronic overexposure may aggravate existing skin, eye and lung conditions.

VI. REACTIVITY DATA

Stability: Stable.

Hazardous Polymerization: Cannot occur.

Incompatibilities: Avoid contact with strong oxidizing materials, strong alcahydes, strong mineral acids.

Hazardous Decomposition Products: Carbon monoxide oxides.

Conditions to Avoid: None.

VII. SPILL OR LEAK PROCEDURES

Procedures for Spill/Leak:

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks, etc.).

Small Spill - Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material and transfer to a recovery drum.

Large Spill - Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dikes area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into recovery drums. Prevent run-off to sewers, streams or others bodies of water. Notify proper authorities, as required, that a spill has occurred.

Waste Management:


VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection:

If workplace exposure limit(s) of product is exceeded, a NIOSH/MSHA approved air supplied respirator is advised in the absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain minimum exposure.

Eye Protection: Chemical Splash Proof Goggles and full face shield are advised for operations where eye or face contact can occur.

Gloves: Wear impervious gloves.

Other Protective Equipment: To prevent repeated or prolonged skin contact, wear impervious clothing and boots.
IX. SPECIAL PRECAUTIONS

Special Handling/Storage:

To avoid skin contact and ingestion, wash hands and face well before eating or smoking. Do not permit food in work area. Avoid breathing mist if generated. Store at room temperature. Reseal containers when not in use. Do not store near acids, bases or flammable liquids. Containers of this material should be rinsed when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given in this data sheet must be observed.

As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state law(s). However, no warranty or representation with respect to such information is intended or given.

Date revised: 03/22/2002

jpm
Low-VOC Mirachem Pressroom Cleaner Tested At Los Angeles Times and Used at the San Bernardino Sun
Material Safety Data Sheet

MIRACHEM. Pressroom Cleaner (Formulation No. 2501)

Section I - General

Manufacturer Name: The Mirechem Corporation
P.O. Box 27009
Tempe, Arizona 85286-7808

Date Prepared: 7/3/96
Revision Date: 1

Emergency Phone: 1-(800) 847-3527

Section II - Hazardous Ingredients/Identity Information

Hazardous Component (CAS #) OSHA PEL ACGIH TLV Other Limits % (Optional)
None

N.E. = None Established

Section III - Physical/Chemical Characteristics

Boiling Point: >210°F Specific Gravity (H2O = 1): 0.9957
Vapor Pressure (mm Hg): Composite 8.7-9.5 @ 20°C 0.006
Vapor Density (AIR =1): > 1 Evaporation Rate (Butyl Acetate=1): > 1
Solubility in Water: Complete Melting Point: N/A

Appearance and Odor: Clear liquid with a mild citrus odor

N/A = Not Applicable
N.E. = Not Established

Section IV - Fire and Explosion Hazard

Flash Point (Method Used): >212°F (FMCC ASTM D92) Explosive Limits: N/A
Extinguishing Media: N/A
Special Fire Fighting Procedures: N/A Unusual Fire Fighting and Explosion Hazards: N/A

N/A

Section V - Reactivity

Hazardous Decomposition or By-products: Thermal decomposition may produce CO2
Hazardous Polymerization: May Occur Will Not Occur X
### Section VI - Health Hazard Data

<table>
<thead>
<tr>
<th>Eye Contact:</th>
<th>May cause mild temporary irritation.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin Contact:</td>
<td>Prolonged or repeated exposure may cause mild irritation.</td>
</tr>
<tr>
<td>Inhalation:</td>
<td>No adverse effects expected.</td>
</tr>
<tr>
<td>Ingestion:</td>
<td>No adverse health effects are anticipated to occur as a result of acute ingestion. Chronic effects are not known.</td>
</tr>
<tr>
<td>Carcinogenicity:</td>
<td>None of the components in this material are listed by IARC, NTP, OSHA, or ACGIH as a carcinogen.</td>
</tr>
<tr>
<td>Signs/Symptoms of</td>
<td>Prolonged contact may cause mild irritation or dyspnea to sensitive skin.</td>
</tr>
<tr>
<td>Overexposure:</td>
<td></td>
</tr>
<tr>
<td>Medical Conditions</td>
<td>None known.</td>
</tr>
<tr>
<td>Generally Aggravated by Exposure:</td>
<td></td>
</tr>
</tbody>
</table>

### Section VII - Emergency and First Aid Procedures

- **Eyes:** immediately flush with clean water. Consult physician if necessary.
- **Skin:** rinse with water.
- **Ingestion:** if swallowed, treat symptomatically and supportively. Do not induce vomiting. If victim conscious and alert, give two glasses of water or milk to drink. If vomiting occurs, keep head below hips to prevent aspiration. Contact physician.
- **Inhalation:** no adverse effects anticipated.

### Section VIII - Precautions for Safe Handling and Use

- **In Case of Spill:** flush with water into containing area.
- **Waste Disposal:** flush to sewer where applicable within Federal, State or Local disposal requirements.
- **Handling & Storage Precautions:** wear protective goggles or face shield if splashing or spraying liquid. Protect from freezing.
- **Other Precautions:** keep container tightly closed. Keep out of reach of children.

### Section IX - Control Measures

- **Respiratory Protection:** no respiratory protection is necessary.
- **Ventilation:** good general ventilation is sufficient.
- **Protective Clothing:** when prolonged skin contact is expected, wear protective gloves.
- **Eye Protection:** wear safety glasses.
- **Work/Hygienic Practices:** use good personal hygiene practices, wash hands before eating, drinking, smoking, or using toilet facilities.
Low-VOC Soy Gold 1000 Cleaner Used for Pipe Roller Cleaning at the San Bernardino Sun
SECTION I-IDENTIFICATION

PRODUCT: SOYGOLD® 1000
CAS No.: 67784-80-9
CHEMICAL: Fatty acid methyl esters
SYNONYMS: Methyl esters of soybean oil

SECTION II-INGREDIENTS AND HAZARD CLASSIFICATION

TYPICAL COMPOSITION

Alkyl C₉-C₁₄ Methyl Esters

This product contains no hazardous material.

SARA HAZARD: TITLE III SECTION 313-Not listed FIRE-(Section 311/312) None noted

SECTION III-HEALTH INFORMATION

EFFECTS OF EXPOSURE:

INHALATION: No known problems
INGESTION: LD₅₀>50ml/kg (albino rats)(similar products)
EYE CONTACT: Not classified as eye irritants
SKIN CONTACT: Not classified as a skin irritant or corrosive material

SECTION IV-OCCUPATIONAL EXPOSURE LIMITS

PEL: NO OSHA PEL
TLV: NO ACGIH TLV

SECTION V-EMERGENCY FIRST AID PROCEDURE

FOLLOW STANDARD FIRST AID PROCEDURES:

SWALLOWING: Call physician or poison control center.
SKIN CONTACT: Wash affected area.
EYE CONTACT: Flush eyes with cool water for at least 15 minutes. Do not let victim rub eyes.
INHALATION: Immediately remove victim to fresh air. Get medical attention immediately.
SECTION VI-PHYSICAL DATA

BOILING POINT: Over 600° F (315° C) at 760 mm Hg pressure
MELTING POINT: -1° C
VAPOR PRESSURE: Less than 5 mm Hg at 72° F
SPECIFIC GRAVITY: 0.87 at 25° C
SOLUBILITY IN WATER: Negligible at room temperature
APPEARANCE AND COLOR: Light yellow and liquid at room temperature
ODOR: Light vegetable oil odor

SECTION VII-FIRE AND EXPLOSION HAZARDS

FLASH POINT & METHOD USED: 425° F (218° C)(PMCC)
FLAMMABLE LIMITS: Not applicable
NFPA RATING: No NFPA rating
HMIS RATING: HEALTH: 0  FIRE: 1  REACTIVITY: 0

SPECIAL FIRE FIGHTING PROCEDURES & PRECAUTIONS: Treat as oil fire.
Use water spray, dry chemical, foam or carbon dioxide.

UNUSUAL FIRE & EXPLOSION HAZARDS:
Rags soaked with any solvent present a fire hazard and should always be stored in UL listed
or Factory Mutual approved, covered containers. Improperly stored rags can create
conditions that lead to oxidation. Oxidation, under certain conditions can lead to
spontaneous combustion. This product contains antioxidants to retard oxidation.

SECTION VIII-REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: None likely
MATERIALS TO AVOID: Strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS: CO₂, CO
CONDITIONS TO AVOID: None known

SECTION IX-EMPLOYEE PROTECTION

CONTROL MEASURES: Adequate ventilation
RESPIRATORY PROTECTION: None required
PROTECTIVE CLOTHING: No need anticipated
EYE PROTECTION: None required
SECTION X-ENVIRONMENTAL PROTECTION

ENVIRONMENTAL PRECAUTIONS: Avoid uncontrolled releases of this material to environment.

SPILL OR LEAK PRECAUTIONS: Contain spilled material. Transfer to secure containers. Where necessary, collect using absorbent media.

WASTE DISPOSAL: Dispose of according to federal, state and/or local requirements.

SECTION XI-REGULATORY CONTROLS

DOT CLASSIFICATION: Class 55
DOT PROPER SHIPPING NAME: Cleaning Compound, N.O.S.
OTHER REGULATORY REQUIREMENTS: Listed in TSCA inventory

SECTION XII-PRECAUTIONS: HANDLING, STORAGE AND USAGE

No special precautions necessary.

SECTION XIII-DATE AND SIGNATURE

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. The stated MSDS is reliable to the best of the company's knowledge and believed accurate as of the date indicated. However, no representation, warranty or guarantee of any kind, expressed or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user's responsibility to satisfy himself as to the suitableness and completeness of such information for his own particular use.

AG ENVIRONMENTAL PRODUCTS, L.L.C.
9804 PFLUMM
LENEXA, KS 66215

SIGNATURE: [Signature]

PREPARED BY: WILLIAM A. AYRES  REVISION DATE: 7-1-98
Low-VOC Soy Gold 2000 Cleaner Tested at J. S. Paluch, PIP Printing, City of Santa Monica print Shop, Presslink, Vertis and R.R. Donnelley & Sons
SECTION I-IDENTIFICATION

PRODUCT: SOYGOLD 2000
CAS No.: 0794-09-9
CHEMICAL: Fatty acid methyl esters
SYNONYMS: Methyl esters of soybean oil

SECTION II-INGREDIENTS AND HAZARD CLASSIFICATION

TYPICAL COMPOSITION

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alkyl C10-C18 Methyl Esters</td>
<td>67784-39-9</td>
<td>97.39</td>
</tr>
<tr>
<td>Surfactant</td>
<td>9016-45-9</td>
<td>1.30</td>
</tr>
</tbody>
</table>

SARA HAZARD: TITLE III SECTION 313: Not listed
FIRE (Section 311/312): None noted

SECTION III-HEALTH INFORMATION

EFFECTS OF OVEREXPOSURE

INHALATION: No known problems
INGESTION: LD50: 500 mg/kg (oral rat); similar products
EYE CONTACT: Not classified as eye irritants
SKIN CONTACT: Not classified as a skin irritant or corrosive material

SECTION IV-OCCUPATIONAL EXPOSURE LIMITS

PEL: No OSHA PEL
TWA: NO ACGIH TWA

SECTION V-EMERGENCY FIRST AID PROCEDURE

FOLLOW STANDARD FIRST AID PROCEDURES

SWALLOWING: Call physician or poison control center.
SKIN CONTACT: Wash affected area.
EYE CONTACT: Flush eyes with cool water for at least 15 minutes. Do not let victim rub eyes.
INHALATION: Immediately remove victim to fresh air. Get medical attention immediately.

SECTION VI-PHYSICAL DATA

BOILING POINT: Over 600°F (315°C) at 760 mm Hg pressure
MELTING POINT: -1°C
VAPOR PRESSURE: 0.002 mm Hg at 25°C
SPECIFIC GRAVITY: 0.882 g/mL at 25°C
DIELECTRIC STRENGTH: >36.9
SOLUBILITY IN WATER: Negligible at room temperature
APPEARANCE AND COLOR: Light yellow to clear and liquid at room temperature
ODOR: Light vegetable oil odor

SECTION VII-FIRE AND EXPLOSION HAZARDS

FLASH POINT & METHOD USED: 325°F (218°C) (PPMC)
FLAMMABLE LIMITS: Not applicable
NFPA RATING: No NFPA rating
HMX RATING: HEALTH: 0 FIRE: 1 REACTIVITY: 0

AD 2003
SPECIAL FIRE FIGHTING PROCEDURES & PRECAUTIONS
Treat as oil fire. Use water spray, dry chemical, foam or carbon dioxide.

UNUSUAL FIRE & EXPLOSION HAZARDS
Rags soaked with any solvent present a fire hazard and should always be stored in UL listed or Factory Mutual approved, covered containers. Improperly stored rags can create conditions that lead to oxidation. Oxidation, under certain conditions can lead to spontaneous combustion. This product contains antioxidants to retard oxidation.

SECTION VIII-REACTIVITY

STABILITY: Stable
HAZARDOUS POLYMERIZATION: None likely
MATERIALS TO AVOID: Strong oxidizing agents
HAZARDOUS DECOMPOSITION PRODUCTS: CO, CO
CONDITIONS TO AVOID: None known

SECTION IX-EMPLOYEE PROTECTION

CONTROL MEASURES: Adequate ventilation
RESPIRATORY PROTECTION: None required
PROTECTIVE CLOTHING: No need anticipated
EYE PROTECTION: None required

SECTION X-ENVIRONMENTAL PROTECTION

ENVIRONMENTAL PRECAUTIONS: Avoid uncontrolled releases of this material into environment.
SPILL OR LEAK PRECAUTIONS: Contain spilt material. Transfer to secure containers. Where necessary, collect using absorbent media.
WASTE DISPOSAL: Dispose of according to federal, state and/or local requirements.

SECTION XI-REGULATORY CONTROLS

DOT CLASSIFICATION: Class 55
DOT PROPER SHIPPING NAME: Cleaning Compound, N.O.S.
OTHER REGULATORY REQUIREMENTS: Listed as TSCA inventory

SECTION XII-PRECAUTIONS: HANDLING, STORAGE AND USAGE

No special precautions necessary.

SECTION XIII-DATE AND SIGNATURE

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. The stated MSDS is reliable to the best of the company’s knowledge and believed accurate as of the date indicated. However, no representation, warranty or guarantee of any kind, expressed or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense direct or consequential, arising out of use. It is the user’s responsibility to satisfy himself as to the reliability and completeness of such information for his own particular use.

AG ENVIRONMENTAL PRODUCTS, L.L.C.
8804 FLEMDI
LEXINGTON, KS 66215

SIGNATURE: William A. Ayres

PREPARED BY: William A. Ayres
REVISION DATE: 5-01-01
MSDS Material Safety Data Sheet

ACETONE

MSDS Number: A0446 — Effective Date: 04/1991

1. Product Identification

   Synonyms: Dimethylketone; 2-propanone; dimethylketol
   CAS No.: 67-64-1
   Molecular Weight: 88.10
   Chemical Formula: (CH₃)₂CO
   Product Code:
   J.T. Baker: 3356, 5380, 5103, 9001, 9002, 9003, 9004, 9005, 9006, 9007, 9008, 9009, 9010, 9015, 9034, 9125, 9254, 9271,
   A124, V659
   Mallinckrodt: 9018, 2432, 2435, 2437, 2434, 2440, 2443, 2445, 2850, 16451, M580, 10981

2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>91 - 100%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Hazards Identification

   Emergency Overview:
   **DANGER: EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM.**

   J.T. Baker SAF-T-DATA™ Ratings (Provided here for your convenience)
   Health Rating: 1 - Slight
Flammability Rating: 4 - Extreme (Flammable)
Reactivity Rating: 2 - Moderate
Contact Rating: 1 - Slight
Lab Protective Equip: GOGGLES; LAB CCAT; VENT HOOD; PROPER GLOVES; CLASS B EXTINGUISHER
Storage Color Code: Red (Flammable)

Potential Health Effects

Inhalation:
Inhalation of vapors irritates the respiratory tract. May cause coughing, dizziness, dizziness, and headache. Higher concentrations can produce central nervous system depression, nausea, and unconsciousness.

Ingestion:
Swallowing small amounts is not likely to produce harmful effects. Ingestion of larger amounts may produce abdominal pain, nausea and vomiting. Aspiration into lungs can produce severe lung damage and is a medical emergency. Other symptoms are expected to parallel inhalation.

Skin Contact:
Irritating to the skin, causing redness, pain, drying and cracking of the skin.

Eye Contact:
Irritating to the eyes. Splashes may cause severe irritation, with stinging, tearing, redness and pain.

Chronic Exposure:
Prolonged or repeated skin contact may produce severe irritation or dermatitis.

Aggravation of Pre-existing Conditions:
Use of alcoholic beverages enhances toxic effects. Exposure may increase the toxic potential of chlorinated hydrocarbons, such as chloroform, trichloroethylene.

4. First Aid Measures

Inhalation:
Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:
Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call a physician immediately.

Skin Contact:
Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:
Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention.

5. Fire Fighting Measures

Fire:
Flash point: -20°C (-4°F) CC
Autoignition temperature: 465°C (879°F)
Flammable limits in air % by volume:
LEL: 2.5; UEL: 12.8
Extremely Flammable Liquid and Vapor! Vapor may cause flash fire.

Explosion:
Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Contact with strong oxidizers may cause fire. Sealed containers may rupture when heated. This material may produce a floating fire hazard. Sensitive to static discharge.
Fire Extinguishing Media:
Dry chemical, alcohol foam or carbon dioxide. Water may be ineffective. Water spray may be used to keep fire-exposed containers cool, dilute spills to nonflammable mixtures, protect personnel attempting to stop leak and disperse vapors.

Special Information:
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

6. Accidental Release Measures

Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 5. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e.g. vermiculite, dry sand, earth), and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer. If a leak or spill has not ignited, use a water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to sell, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

J. T. Baker SOLUSORB(R) solvent adsorbent is recommended for spills of this product.

7. Handling and Storage

Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid); observe all warnings and precautions listed for the product.

8. Exposure Controls/Personal Protection

Airborne Exposure Limits:
A. OSHA Permissible Exposure Limit (PEL):
1000 ppm (TWA)

B. ACGIH Threshold Limit Value (TLV):
500 ppm (TWA), 750 ppm (STEL) A4 - not classifiable as a human carcinogen

Ventilation System:
A system of local and/or general exhaust is recommended to keep employee exposure below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, Industrial Ventilation, A Manual of Recommended Practices, most recent edition, for details.

Personal Respirators (NIOSH Approved):
If the exposure limit is exceeded, a half-face organic vapor respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate respiratory agency or respirator supplier, whichever is lowest. A full-face piece organic vapor respirator may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.

WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:
Wean impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin
9. Physical and Chemical Properties

Appearance:
Clear, colorless, volatile liquid.

Odor:
Fragrant, mint-like.

Solubility:
Miscible in all proportions in water.

Specific Gravity:
0.71 @ 30°C (86°F)

pH:
No information found.

% Volatiles by volume @ 21°C (70°F):
100

Boiling Point:
56.5°C (133°F) @ 760 mm Hg

Melting Point:
-95°C (139°F)

Vapor Density (Air=1):
2.0

Vapor Pressure (mm Hg):
40 @ 30.5°C (87°F)

Evaporation Rate (ButAc=1):
ca. 77

10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:
Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:
Will not occur.

Incompatibilities:
Concentrated nitric and sulfuric acid mixtures, oxidizing materials, chloroform, alkali, chlorine compounds, acids, potassium t-butoxide.

Conditions to Avoid:
Heat, flames, ignition sources and incompatibles.

11. Toxicological Information

Ocular rat LD50: 5400 mg/kg; Inhalation rat LC50: 50,100 mg/m³; Irritation eye rabbit, Standard Draize; 20 mg severe; investigated as a nanogen, mutagen, reproductive effects.

--- Cancer List ---

180
12. Ecological Information

Environmental Fate:
When released into the soil, this material is expected to readily biodegrade. When released into the soil, this material is expected to leach into groundwater. When released into the soil, this material is expected to quickly evaporate. When released into water, this material is expected to readily biodegrade. When released to water, this material is expected to quickly evaporate. This material has a log octanol-water partition coefficient of less than 3.0. This material is not expected to significantly bioaccumulate. When released into the air, this material may be moderately degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material may be moderately degraded by photolysis. When released into the air, this material is expected to be readily removed from the atmosphere by wet deposition.

Environmental Toxicity:
This material is not expected to be toxic to aquatic life. The LC50/96-hour values for fish are over 100 mg/L.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed of in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local regulations.

14. Transport Information

Domestic (Land, D.O.T.)

Proper Shipping Name: ACETONE
Hazard Class: 3
UN/NA: UN1090
Packing Group: II
Information required for product/sizes: 350LB

International (Water, I.M.O.)

Proper Shipping Name: ACETONE
Hazard Class: 3
UN/NA: UN1090
Packing Group: II
Information required for product/sizes: 150LB

15. Regulatory Information

---Chemical Inventory Status - Part 1---

Ingredient: TSCA EC Japan Australia
16. Other Information

NFPA Ratings: Health: 1 Flammability: 3 Reactivity: 0
Label Hazard Warning: DANGER! EXTREMELY FLAMMABLE LIQUID AND VAPOR. VAPOR MAY CAUSE FLASH FIRE. HARMFUL IF SWALLOWED OR INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM.

LABEL PRECAUTIONS: Keep away from heat, sparks and flame.
Keep container closed.
Use only with adequate ventilation.
Wash thoroughly after handling.
Avoid breathing vapor.
Avoid contact with eyes, skin and clothing.

Labeled First Aid: Aspiration hazard. If swallowed, vomiting may occur spontaneously, but DO NOT INDUCE. If vomiting occurs, keep head below hips to prevent aspiration into lungs. Never give anything by mouth to an unconscious person. Call physician immediately. If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. In all cases, get medical attention.

Product Use: Laboratory reagent.
Revision Information: No changes.
Disclaimers: 

=================================================================
Mallinckrodt Baker, Inc. provides the information contained herein in good faith but makes no representations as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.

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Prepared by: Environmental Health & Safety
Phone Number: (314) 656-1600 (U.S.A.)
Low-VOC Acetone/Mineral Spirits Blanket Cleaner Used at Nelson Nameplate and Metering Roller Cleaner Tested at Several Facilities
1. **COMPANY AND MATERIAL IDENTIFICATION**

   **Product Name/Number**: Rho-Solv 7248
   
   **Synonyms**: N. A.
   
   **Chemical Family**: Flammable Solvent Blend
   
   **Stock Number**: Technical Grade – 7248
   
   **Electronic/Semiconductor Grade**: N. A.
   
   **Reconstituted Grade**: N. A.
   
   **ACS Reagent Grade**: N. A.

2. **COMPOSITION OF THE MATERIAL: MIXTURE**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>% Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>70 – 90%</td>
</tr>
<tr>
<td>Naphtha (light aliphatic)</td>
<td>64742-89-8</td>
<td>&lt;10%</td>
</tr>
<tr>
<td>Naphtha (light aromatic)</td>
<td>64742-95-6</td>
<td>&lt;10%</td>
</tr>
</tbody>
</table>

3. **HAZARDS IDENTIFICATION**

   **EXTREMELY FLAMMABLE LIQUID & VAPOR, MAY CAUSE FLASH FIRE.**

   **Inhalation:**
   High concentration of vapors will be irritating to the respiratory tract and may cause dizziness, headache, and dizziness Central Nervous System effects & possibly death.

   **Ingestion:**
   Ingestion of larger amounts may produce abdominal pain, nausea and vomiting. Aspiration into lungs can cause lung damage.

   **Skin Contact:**
   May cause some irritation, drying, redness or cracking to skin.

   **Eye Contact:**
   Vapors may be irritating to eyes. Splashing may cause redness and pain to eyes.

   **Symptoms & Signs to Exposure:**
   Basically, same symptoms and signs will occur, as given above.
MATERIAL SAFETY DATA SHEET
RHOCHEM CORPORATION
(A Fully Owned Subsidiary of Philip Services Corporation)
425 Isis Avenue, Inglewood, California – 90301
Tel.: (323) 776-6233, Fax: (310) 645-6379
Product: Rhosolv-7248, Revision- Initial Release/10-21-2004
Page No. 2 of 2

Medical Conditions Aggravated:
Pre-existing medical conditions of the Respiratory System, Skin dermatitis and Eyes may be aggravated by further exposure to this material.

4. FIRST AID:
Inhalation:
Remove the person to fresh air. If no improvement noticed, then transport to the nearest medical care facility for further treatment.

Ingestion:
If swallowed, do not induce vomiting, transport to the nearest medical care facility for further treatment.

Skin Contact:
Remove contaminated clothing. Flush exposed area with water followed by washing with soap.

Eye Contact:
Flush eyes with water with eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision, or swelling persist, transport to the nearest medical care facility for further treatment.

Advice to Physician:
Causes CNS depression. Prolonged or repeated exposure may result in dermatitis.

5. FIRE FIGHTING MEASURES:
Clear the area of all non-emergency, un-protected personnel.

------------|-------------|-------|-------|---------------------|
Acetone     | -20°C – CC  | 12.8  | 2.5   | 465°C (869°F)       |
Naphtha (aliphatic) | 14-18°C – CC | 0.7   | 0.9   | Not available       |
Naphtha (aromatic) | 40-47°C – CC | 0.1   | 0.6   | Not available       |

Specific Hazards:
Carbon Monoxide may be evolved in case of incomplete combustion. Will float on the surface of water and can be re-ignited. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure build-up, which could result in container rupture. Containers exposed to direct flame should be cooled with large quantities of water as needed to prevent weakening of container structure or rupture.

Extinguishing Media:
Water, foam, dry chemical or Carbon dioxide, sand or earth may be used in case of small fires. The extinguishing water must be collected separately and disposed of as a waste. At no instance, this contaminated water will be discharged to the environment or into sewage, city or
MATERIAL SAFETY DATA SHEET
RHO-CHEM CORPORATION
(A Fully Owned Subsidiary of Philip Services Corporation)
425 Ina Avenue, Inglewood, California – 90301
Tel.: (310)776-6233, Fax: (310)645-6379
Product: Rho800/Lv-7248, Revision: Initial Release/10-31-2004
Page No. 3 of 9

municipal waters. Material can accumulate static discharge. Empty containers still retain residue, a liquid & or vapor mixture.

Protective Equipment:
Wear full protective clothing and Self contained breathing apparatus for large spill/fire.

6. ACCIDENTAL RELEASE MEASURES
Observe all relevant local, State, Federal and International regulations as applicable.

Protective measures:
Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment, please refer to section 8 and for disposal of spilled material refer to section 13 of this MSDS. Shut off leaks, if no risk is involved. Eliminate all possible ignition sources in surrounding area. Use appropriate containment methods to avoid further contamination to environment and to neighboring areas. Avoid spilling or entering the spilled material into the drains, ditches or rivers by using sand, earth or other appropriate barriers. Attempt to disperse the vapors to divert its flow to a safe location, by using fog sprays, for example. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding all equipment. Monitor area with combustible gas indicator. A leaking drum or container can be rolled or made up side down in the direction opposite to the leaking spot.

Clean Up Methods:
For small liquid spills (< 1 drum of 55 gal), transfer to a labeled, sealable container by mechanical means for safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely.

For large liquid spills (> 1 drum of 55 gal), transfer by mechanical means, such as vacuum truck to a salvage tank for safe disposal. Return as a contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

Additional Information:
Notify appropriate authorities if there is a risk involved to the general public or to the environment or to the neighborhood due to the spill or release of this material. Vapor may form an explosive mixture with air. Please report to the National Response Center @ (800)424-8802 if the spilled quantity exceeds the reportable quantity. (Refer to chapter 15 of this MSDS. Required under CERCLA (Comprehensive Environment Response, Compensation & Liability Act).
7. HANDLING AND STORAGE

General Precautions:
Avoid breathing of or contact with material. Only use in well ventilated areas. Wash thoroughly after handling. Use appropriate P.P.E. per section 8 of this MSDS.

Handling:
Handle and open the container with CARE in well ventilated area. Remove ignition sources. Avoid sparks. Do not create friction. Keep container closed, to avoid emissions and inhalation. Avoid any force opening, creating friction. Avoid contact with skin, eyes and clothing. Ensure electrical continuity by bonding and grounding all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (< 1 m/sec until fill pipe is submerged to twice its diameter, then < 7 m/sec.) Avoid splash filling. Do not use compressed air for filling, discharging or handling operations. The vapor is heavier than air spreads along the ground and distant ignition is possible. Extinguish any naked flames. Do not smoke. Ventilate workplace in such a way that the Occupational Exposure Limit (OEL) is not exceeded. Do not empty into drains. Avoid handling above its flash point, otherwise the product will form flammable/explosive vapor-air mixtures.

Storage:
Must be stored in a diked (bunded) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Store at ambient temperature. Keep away from aerosols, oxidizers, corrosives.

Product Transfer:
Keep containers closed when not in use. Do not use compressed air for filling, discharging or handling.

Recommended Materials:
For containers or container linings, use mild steel or Stainless steel. For container paints, use epoxy paint, zinc silicate paint.

Unsuitable Materials:
Avoid prolonged contact with natural, benzy or nitrile rubbers.

Containers Recommendations:
Emptied containers may still contain explosive vapors. Do Not cut, drill grind or perform similar operations on or near containers. Do not re-use empty containers without commercial cleaning or reconditioning.
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

Following table may be referred in absence of occupational standards for this material.

<table>
<thead>
<tr>
<th>Material</th>
<th>Source</th>
<th>Type</th>
<th>PPM</th>
<th>mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>OSHA</td>
<td>TWA</td>
<td>1000</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Cal/OSHA</td>
<td>TWA</td>
<td>750</td>
<td>1780</td>
</tr>
<tr>
<td></td>
<td>Cal/OSHA</td>
<td>STEL</td>
<td>1000</td>
<td>2400</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>TWA</td>
<td>500</td>
<td>N.A.</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>STEL</td>
<td>750</td>
<td>N.A.</td>
</tr>
<tr>
<td>Naphtha-aliphatic</td>
<td>OSHA</td>
<td>TWA</td>
<td>500</td>
<td>1,350</td>
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<tr>
<td></td>
<td>Cal/OSHA</td>
<td>TWA</td>
<td>400</td>
<td>1,800</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>TWA</td>
<td>500</td>
<td>N.A.</td>
</tr>
<tr>
<td>Naphtha-aromatic</td>
<td>OSHA</td>
<td>TWA</td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>Cal/OSHA</td>
<td>TWA</td>
<td>100</td>
<td>400</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>TWA</td>
<td>400</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

General Information:
Wash hands before eating, drinking, smoking and using toilet.

Exposure Control:
The levels of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local environment. Ensure adequate ventilation to control airborne concentration, below the exposure guidelines/limits. Eye washes and showers must be used in case of an emergency.

Personal Protective Equipment:
Use Personal Protective Equipment (P.P.E.) that are NIOSH approved and/or recommended per National Standards.

Respiratory Protection:
If an engineering control fails to maintain airborne concentrations to a level which is safe to protect workers' health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Also check with the Respiratory Protective Equipment suppliers and refer to the OSHA Respiratory Standard 1910.134 for detailed information. When air purifying respirator is required, select appropriate respirator and filters suitable for organic gases and vapors. Where air purifying respirators are unsuitable, for example airborne concentration is high, or oxygen is deficient, confined space etc., use appropriate positive pressure breathing apparatus. For regular handling, full face respirator with organic vapor cartridges is recommended in order to protect the face from splashes.
Hand Protection:
Nitrile rubber gloves give good chemical resistance and can be used for regular use.
In case of direct incidental contact, splash, clean up etc., PVC or Neoprene rubber gloves should be used.

Eye Protection:
Chemical Splash goggles (Chemical mono-goggles) should be used.

Protective Clothing:
Use chemical resistant clothing, chemical resistant shoes or boots.

Environmental Exposure Controls:
Follow and comply with the local, state and federal guidelines for V.O.C. emission control limits, and for the discharge of exhaust air containing vapors of this material.

9. PHYSICAL AND CHEMICAL PROPERTIES of Acetone, being a major component in this mixture:

Property: Appearance: Colorless volatile liquid
         Odor: Distinct fragrant odor
         Boiling point: 56.5°C (133°F) @ 760 mm Hg
         Vapor Pressure: 440 @ 39.5°C (104°F)
         Specific Gravity: 0.79 @ 20°C
         Water Solubility: Miscible in water
         Vapor density (air =1): 2.0 (Air =1)
         Volatile Organic Compound: 100%
11. TOXICOLOGICAL INFORMATION

Basis of Assessment:
The information given herein is based on similar products, and or compounds.

Acetone:
Oral Toxicity: LD50: 5800 mg/kg, rat
Inhalation Toxicity: LC50: 5, 100 mg/m³
Carcinogenicity: Not classified as a human carcinogen by ACGIH or IARC.

Naphtha solvents:
Oral Toxicity: LD50: >2000 mg/kg, rat
Inhalation Toxicity: LC50: > 5, 000 p.p.m. / hour
Carcinogenicity: Not classified as a human carcinogen by ACGIH or IARC.

12. ECOLOGICAL INFORMATION

Acetone: CAS #: 67-64-1
Acetone is not expected to be toxic to aquatic life.

Environmental Toxicity: Less toxic: LC50/96 - hour -> 100 mg/l

Mobility: Will quickly evaporate from water, will evaporate if released to soil.

Bioaccumulation: Does not bio-accumulate significantly.

Persistence/degradability: Moderately bio-degradable, by reaction with photo-chemically produced hydroxyl radicals.

Naphtha (Chromat) CAS #: 64742-93-9

Fish, Algae & Aquatic Invertebrates: 1 < LC50/EC50 <= 10 mg/l
Mobility: Low mobility. Absorbs to soil, floats on water
Persistence/degradability: Expected to be readily biodegradable.
Bio-accumulation: Has the potential to bioaccumulate.
13. DISPOSAL METHODS

Material Disposal:
Recover or recycle if possible. It is the responsibility of the waste generator to determine the extent of hazard and physical properties of the material generated. Additionally, the generator of the waste of this material must determine its waste classification and disposal methods in compliance with local, state and federal or other regulations.

Container Disposal:
Drain the container thoroughly, and then vent it in a safe place away from sparks and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld un-cleaned containers. Send the waste drum to the drum re-coverer or reclainer.

Local Regulatory Compliance:
The disposal should be in compliance with applicable local, regional, state and national laws and regulations.

14. TRANSPORT INFORMATION

U. S. Department of Transportation Classification (49 CFR)
Identification number: UN 1993
Proper shipping name: Flammable liquid, n. o. s. (Acetone/Naphtha mixture)
Class/Division: 3
Packing Group: II
Contains OIL
Emergency Response Guide No.: 128

15. REGULATORY INFORMATION

Federal Regulatory Status:
Notification:

* TSCA Listed

SARA TITLE III, Sections 311, 312
Classified as Fire hazard.
SARA Toxic Release Inventory (TRI) 313
Naphtha (aromatic) in contains following chemicals:
1, 2, 4 Trimethyl benzene : < 5%
Cumene: < 0.5% and Xylene: < 0.2%
MATERIAL SAFETY DATA SHEET
RHO-CHEM CORPORATION
(A Fully Owned Subsidiary of Philip Services Corporation)
425 Isis Avenue, Inglewood, California – 90301
Tel.: (323)776-6233, Fax: (310)645-6379
Product: Rhosolv-7248, Revision: Initial Release/10-21-2004

State Regulatory Information:
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
Not listed.

16. OTHER INFORMATION
HMIS Rating:
(Health, Flammability & Reactivity)\[H=1, F=3, R=0\]

NFPA Rating:
(Health, Flammability & Reactivity)\[H=1, F=3, R=0\]

MSDS Revision level:
New – Initial Release

Uses and Restrictions:
Industrial solvent

MSDS Distribution:
The copy of this MSDS should be available to every one who may handle this material.

Disclaimer:
The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200 and the information contained herein is to the best of our knowledge for its original form in which it is supplied and is intended as guidelines for the purpose of handler's and environmental safety. No warranty or guarantee is expressed or implied regarding the accuracy of this data or of the resulting product, using this material.
Low-VOC Cleaner Used by SCAQMD Print Shop
1. **COMPANY AND MATERIAL IDENTIFICATION:**

   Product Name/Number : Rho-Wash 100

   Synonyms : N. A.

   Chemical Family : Flammable Solvent Blend

   Stock Number : T011

2. **COMPOSITION OF THE MATERIAL: MIXTURE**

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>Wt.% Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>50 - 75</td>
</tr>
<tr>
<td>Mineral Spiritis (comparable to Stoddard solvent)</td>
<td>64742-47-8</td>
<td>10 - 15</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene</td>
<td>95-63-6</td>
<td>1 - 5</td>
</tr>
<tr>
<td>Non-hazardous substances</td>
<td></td>
<td>25 - 30</td>
</tr>
</tbody>
</table>

3. **HAZARDS IDENTIFICATION:**

   **FLAMMABLE LIQUID & VAPOR, MAY CAUSE FLASH FIRE.**

   **Inhalation:**
   High concentration of vapors will be irritating to the respiratory tract and may cause drowsiness, headache, dizziness and Central Nervous System effects.

   **Ingestion:**
   Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. If large amounts may be harmful if accidentally swallowed. May result into lung inflammation.

   **Skin Contact:**
   May cause some irritation to skin. Exposure to large amounts may result into redness, burning, drying and cracking. Not harmful if handled safely.

   **Eye Contact:**
   Vapors may be irritating to eyes. May cause stinging, tearing, redness and swelling of eyes.
Symptoms & Signs to Exposure:
Basically, same symptoms and signs will occur, as given above.

Medical Conditions Aggravated:
Pre-existing medical conditions of the Respiratory System, Skin dermatitis and Eyes may be
aggravated by further exposure to this material.

4. **FIRST AID:**

   **Inhalation:**
   Remove the person to fresh air. If no improvement noticed, then transport to the nearest medical
care facility for further treatment.

   **Ingestion:**
   If swallowed, do not induce vomiting, take the affected person to the nearest medical care
facility for further treatment.

   **Skin Contact:**
   Remove contaminated clothing. Flush exposed area with water followed by washing with soap.

   **Eye Contact:**
   Flush eyes with water with eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred
vision, or swelling persist, transport to the nearest medical care facility for further treatment.

   **Advice to Physician:**
   Causes CNS depression. Prolonged or repeated exposure may result in dermatitis.

5. **FIRE FIGHTING MEASURES:**
Clear the area of all non-emergency, un-protected personnel.

   **Flash Point of the mixture:** <100°F - TCC

   **Following properties are of the main ingredient (Acetone) in the mixture:**
   **Upper Flammable Limit:** 2.6 % (V)
   **Lower Flammable Limit:** 12.8 % (V)
   **Auto Ignition Temperature:** 455°C
Specific Hazards:
Carbon Monoxide may be evolved in case of incomplete combustion. Will float on the surface water and can be re-ignited. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup, which could result in container rupture. Containers exposed to direct flame should be cooled with large quantities of water as needed to prevent weakening of container structure or rupture. Keep away from all the ignition and electrical sources.

Extinguishing Media:
Use water, foam, dry chemical or Carbon dioxide, sand or earth in case of small fires. The extinguishing water must be collected separately and disposed of as a waste. At no instance, this contaminated water will be discharged to the environment or into sewage, city or municipal waters. Material can accumulate static discharge. Empty containers still retain residue, a liquid & or vapor mixture.

Protective Equipment:
Wear full protective clothing and Self contained breathing apparatus for large spill/fire.

6. ACCIDENTAL RELEASE MEASURES

Observe all relevant local, State, Federal and International regulations as applicable.

Protective measures:
Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment, please refer to section 8 and for disposal of spilled material refer to section 13 of this MSDS. Shut off leaks, if no risk is involved. Eliminate all possible ignition sources in surrounding area. Use appropriate containment methods to avoid further contamination to environment and to neighboring areas. Avoid spreading or entering the spilled material into the drains, ditches or rivers by using sand, earth or other appropriate barriers. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding all equipment. Monitor area with combustible gas indicator. A leaking drum or container can be rolled or made up side down in the direction opposite to the leaking spot.

Clean Up Methods:
Use appropriate P.P.E. while handling the spill. Better if a HAZWOPER trained personnel handles the spill.

For small liquid spills (< 1 drum of 55 gal), transfer to a labeled, sealable container by mechanical means for safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely.

For large liquid spills (> 1 drum of 55 gal), transfer by mechanical means such as vacuum truck to a salvage tank for safe disposal. Retain as a contaminated waste. Allow residues to evaporate.
Unsuitable Materials:
Avoid prolonged contact with natural, butyl or nitrile rubbers.

Container Recommendation:
Emptied containers may still contain explosive vapors. Do Not cut, drill, grind or perform similar operations on or near containers. Do not re-use empty containers without commercial cleaning or reconditioning.

8. EXPOSURE CONTROLS/PERSOAL PROTECTION

Occupational Exposure Limits
Following table may be referred in absence of occupational standards for this material.

<table>
<thead>
<tr>
<th>Material</th>
<th>Source</th>
<th>Type</th>
<th>PPM</th>
<th>mg/m³</th>
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</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>ACGIH</td>
<td>TWA</td>
<td>500</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>ACGIH</td>
<td>STEL</td>
<td>750</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>OSHA</td>
<td>TWA</td>
<td>1000</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>Cal/OSHA</td>
<td>TWA</td>
<td>750</td>
<td>1780</td>
</tr>
<tr>
<td></td>
<td>Cal/OSHA</td>
<td>STEL</td>
<td>1000</td>
<td>2400</td>
</tr>
<tr>
<td>Mineral Spirit</td>
<td>ACGIH</td>
<td>TWA</td>
<td>100</td>
<td>------</td>
</tr>
<tr>
<td></td>
<td>OSHA Z1</td>
<td>PEL</td>
<td>500</td>
<td>2,900 mg/m³</td>
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<td></td>
<td>OSHA Z1 A</td>
<td>TWA</td>
<td>100</td>
<td>525 mg/m³</td>
</tr>
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<td>1,2,4-Trimethylbenzene</td>
<td>NIOSH REL</td>
<td>TWA</td>
<td>25</td>
<td>125 mg/m³</td>
</tr>
</tbody>
</table>

General Information:
Wash hands before eating, drinking, smoking and using toilet.

Exposure Control:
The levels of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local environment. Ensure adequate ventilation to control airborne concentration, below the exposure guidelines/limits. Eye washes and showers must be used in case of an emergency.

Personal Protective Equipment:
Use Personal Protective Equipment (P.P.E.) that are NIOSH approved and/or recommended per National Standards.

Respiratory Protection:
If an engineering control fail to maintain airborne concentrations to a level which is safe to protect workers’ health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Also check with the Respiratory Protective
Equipment suppliers and refer to the OSHA Respiratory Standard 1910.134 for detailed information. When air purifying respirator is required, select appropriate respirator and filters suitable for organic gases and vapors. Where air purifying respirators are un-suitable, for example airborne concentration is high, or oxygen is deficient, confined space etc., use appropriate positive pressure, breathing apparatus. For regular handling, full face respirator With organic vapor cartridges is recommended in order to protect the face from splashes.

Hand Protection:
Nitrile rubber gloves give good chemical resistance and can be used for regular use. In case of direct incidental contact, splash, clean up etc., PVC or Neoprene rubber gloves should be used.

Eye Protection:
Chemical Splash goggles (Chemical mono-goggles) should be used.

Protective Clothing:
Use chemical resistant clothing, chemical resistant shoes or boots.

Environmental Exposure Controls:
Follow and comply with the local, state and federal guidelines for V.O.C. emission control limits, and for the discharge of exhaust air containing vapors of this material.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Colorless liquid
Odor : Distinct aromatic odor
Boiling point : 62 °C
Flash point : <100°F
Specific Gravity : 0.85
Water Solubility : negligible.
Vapor Pressure : Not available
Vapor density (air =1) : Not available
Volatile Organic Compound : 98gms/litre per AQMD method 304.91

10. STABILITY AND REACTIVITY

Stability:
Stable under normal conditions of use.

Conditions to Avoid:
Avoid heat, sparks, open flames and other ignition sources.
Materials to Avoid:
Strong Oxidizing agents, Conc. Nitric or Sulfuric acid, halogens or molten sulfur.

Hazardous Decomposition Products:
Complex mixtures of airborne solids, liquids and gases including Carbon Monoxide, Carbon dioxide and other organic compounds will be evolved during combustion or thermal or oxidative degradation of this material.

11. TOXICOLOGICAL INFORMATION

Basis of Assessment:
The information given herein is based on similar products, and or compounds.

Mineral Spirits:
Acute Oral Toxicity: LD50: > 2000 mg/Kg
Rat: Aspiration into lungs when swallowed or vomited. May cause chemical pneumonitis.

Acute Dermal Toxicity: Low dermal toxicity.

Acute Inhalation Toxicity: Low toxicity.
LC50 greater than near-saturated vapor concentration/ 1 hour, rat.

Carcinogenicity: Not classified as a human carcinogen by ACGIH or IARC.

12. ECOLOGICAL INFORMATION

Mineral spirits:
Acute Toxicity:
Fish and marine animals: Low toxicity: LC/EC/C50: > 1000 mg/l
Micro-organisms: Fairly toxic: LC/EC/IC50: < or = 10 mg/l

Acetone:
Acetone is not expected to be toxic to aquatic life.

Persistence/degradability: Moderately bio-degradable, by reaction with photo-chemically produced hydroxyl radicals.

13. DISPOSAL METHODS

Material Disposal:
Recover or recycle if possible. It is the responsibility of the waste generator to determine the
the waste of this material must determine its waste classification and disposal methods in compliance with local, state and federal or other regulations.

**Container Disposal:**
Drain the container thoroughly, and then vent it in a safe place away from sparks, and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld un-cleaned containers. Send the waste drum to the drum re-coverer or re-claimer.

**Local Regulatory Compliance:**
The disposal should be in compliance with applicable local, regional, state and national laws and regulations.

14. **TRANSPORT INFORMATION**

**U. S. Department of Transportation Classification (49 CFR)**
- Identification number: UN 1993
- Proper shipping name: Flammable liquid, n. o. s. (Acetone, petroleum distillate)
- Class/Division: 3
- Packing Group: II
- Emergency Response Guide No.: 128

15. **REGULATORY INFORMATION**

**Federal Regulatory Status:**
Notification:

- **TSCA:** All ingredients in this compound are listed on TSCA list.
- **SARA TITLE III, Sections 311, 312:** Classified as Fire hazard.
- **SARA 313 (TRI):** None.

**State Regulatory Information:**
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
This material does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm. There may be some impurities from the original manufacturers/distributors, of which we are not aware of. Such impurities may or may not cause cancer or reproductive harm or birth effects.
16. OTHER INFORMATION

HMIS Rating: H=1, F=3, R = 0
(Health, Flammability & Reactivity)

NFPA Rating: H=1, F=3, R = 0
(Health, Flammability & Reactivity)

MSDS Revision level: New – Initial Release/07-19-05

Uses and Restrictions:
Industrial solvent for cleaning purposes.

MSDS Distribution:
The copy of this MSDS should be available to every one who may handle this material.

Disclaimer:
The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200 and the information contained herein is to the best of our knowledge for its original form in which it is supplied and is intended as guidelines for the purpose of handler’s and environmental safety. No warranty or guarantee is expressed or implied regarding the accuracy of this data or of the resulting product, using this material.
Low-VOC Cleaner Tested at Fanfare Media Works, Print 200, Western Metal Decorating, The Printery and Tedco
Material Safety Data Sheet

SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Identity (As Used on Label and List)
SOYGOLD 2500 RINSEABLE SOLVENT - EXPERIMENTAL

Chemical Name:
C6-C8 Oleo-Phosphoric Acid Ester/Surfactant Blend

Synonym Name:
Rinseable Solvent, Soy Methyl Ester/Surfactant Cleaner Concentrate

Another Exclusive Product of:
AG Environmental Products, L.L.C.

Address (Number, Street, City, State, and ZIP Code)
12700 West Dodge Road
Omaha, NE 68154

Emergency Telephone Number
402-496-6088

Telephone Number for Information
1-800-599-9299

Date Prepared
February 4, 2005

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

SECTION II - COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Components (Specific Chemical Identity, Common Name(s))
CAS No.
OSHA PEL
ACGIH-TLV
Other Limits
Recommended % (Opt.)

In accordance with 29 CFR 1910.1200, this product does not contain sufficient concentrations of any substances defined as hazardous by this standard.

There are no exposure limits established for this product.

SECTION III - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW - Caution! May Cause Eye Irritation. A light yellow liquid that may cause eye and skin irritation. No hazard if spilled and no unusual hazard if involved in a fire. Slippery, can cause fall if spilled and walked on.

POTENTIAL HEALTH EFFECTS -
EYES - May cause eye irritation.
SKIN - May cause skin irritation.
INHALATION - Exposure via inhalation not likely. No hazard in normal industrial use.
INGESTION - No significant adverse effects expected upon ingestion of the product.

SECTION IV - FIRST AID MEASURES

EYES - In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. If necessary, remove contact lenses, if worn. If irritation persists, get medical attention.
SKIN - In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. If irritation persists get medical attention. Wash clothing before reuse.
INHALATION - No need for first aid is anticipated not likely exposure route.
INGESTION - None for first aid is anticipated if material is swallowed.

SECTION V - FIRE FIGHTING MEASURES

Flash Point (Method Used)
>160 °C (D92 Flash Point - Pensky-Marten Closed Cup)

Flammable Limits
No Data

LEL
No Data

UEL
No Data

E xt inguishing Media -
Not usually necessary as this product does not readily support combustion. Use water appropriate for fire. Use source CO2, dry chemical, foam.

Special Fire Fighting Procedures - Cool exposed equipment with water spray until well after fire is out. Do not spray spilled material with high pressure water streams. Dike fire control water for later disposal. Self-contained breathing apparatus and structural fire fighter’s clothing will provide limited protection.

SECTION VI - ACCIDENTAL RELEASE MEASURES

SMALL SPILL - Caution, slip hazard. Wipe up small spills promptly. Use a cloth or other absorbent material.

LARGE SPILL - Isolate area. Like area to prevent spreading. Stay upwind. Wear protective gear as required. Pick up on absorbent material. Put in suitable container for proper disposal.

SECTION VII - HANDLING AND STORAGE

HANDLING - Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.

STORAGE - Store indoors in a dry area. Follow label directions carefully. Keep out of reach of children. Keep container tightly sealed when not in use. Do not contaminate water or sewers. Use from original container only. Do not store with fertilizers, seeds, insecticides or fungicides.

SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection (Specify Type) - Use with adequate ventilation. UseNIOSH/MSHA approved respirator P100 or TLVs are exceeded.

Engineering Controls
Local Exhaust
Not usually needed
Special

Protective Gloves - Impermeable
Eye Protection - Safety glasses or goggles

Other Protective Clothing or Equipment -
Not usually necessary. If direct contact is possible, wear apron, boots, face shield, etc. as needed.

Work/IHygienic Practices -
Follow label instructions. Wash hands after use and before eating, drinking, smoking, using restrooms, etc.

204
SOYGOLD 2500 Rinseable Solvent

February 4, 2005

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: No Data
Specific Gravity (H2O = 1)
40°F / 25°C: 0.93

Vapor Pressure (mm Hg @ 60°C): No Data
Melting Point: No Data

Vapor Density (AIR = 1): Greater than one (1)
Exhalation Rate (Butyl Acetate = 1): No Data

Solubility in Water: Partially Soluble
pH: NA

Appearance and Odor: A yellow liquid with a faint sweet odor.
VOC's: No Data
10 gms/l

SECTION X - STABILITY AND REACTIVITY

Chemical Stability: Stable
Conditions to Avoid: None known

Incompatibility: Materials to Avoid - Strong oxidizing and reducing agents, strong alkalies and strong acids

Hazardous Decomposition or By-products:
Carbon dioxide, carbon monoxide, smoke, scorch and various organic oxidation by-products.

Hazardous Polymerization: Will Not Occur
Conditions to Avoid: NA

SECTION XI - TOXICOLOGICAL INFORMATION

Ingestion 1.0 mg: No Data
Acute Dermal LD50: No Data

Acute Oral 1.0 mg: No Data
Acute Inhalation LC50: No Data
No Data

SECTION XII - ECOLOGICAL INFORMATION

No Data

SECTION XIII - DISPOSAL CONSIDERATIONS

If this product is supplied becomes a waste, it does not meet the criteria of a hazardous waste as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261.

SECTION XIV - TRANSPORT INFORMATION

Not being to be all inclusive

Domestic Highway: Environmental hazardous substance liquid,
Class (Poly Merthyl Eater C12-C14 Ethyleneoxide) GHS (Hazard Class/ Subclass)
UN/NA No.: 3082

No Data

SECTION XV - REGULATORY INFORMATION

Not being to be all inclusive - selected regulations represented

NFPA Rating: Health 2 Fire 0 Reactivity 0
EMS Rating: Health 2 Flammability 0 Reactivity 0

U.S. FEDERAL REGULATIONS:


CERCLA: SARA TITLE III SECTION 311/312 HAZARD CLASS:

Fire: None Noted
Acute Health: None Noted
Reactive: None Noted

STATE REGULATIONS:

STATE RIGHT-TO-KNOW REGULATIONS: Any substance listed as hazardous under labor statutes by the State of California, Florida, Illinois, Michigan, New Jersey, Ohio, Pennsylvania or Texas is described in Section II above if known present in regulated concentrations.

CALIFORNIA PROPOSITION 65: This product is known to contain any material listed under California's Proposition 65.

SECTION XVI - OTHER INFORMATION

MSDS Status: Revisited Section(s)

WARNING: The user of this product is beyond the control of the manufacturer and distributor, therefore, no guarantee, expressed or implied, is made as to the effects of such risks to be obtained if not used in accordance with directions or established good practice. The user must assume all responsibility, including injury or damage, resulting from its misuse at such a rate or in combination with other materials. The manufacturer and distributor warrants only that this product meets the specifications for such product. THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES EXPRESSED OR IMPLIED, AS TO DESCRIPTION, QUALITY, MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, PRODUCTIVNESS, OR ANY OTHER MATTER OF THIS PRODUCT. THE MANUFACTURER AND DISTRIBUTOR SHALL BE NO WAY RESPONSIBLE FOR THE PROPRIET USE OF THIS PRODUCT. The sole and exclusive remedy against the manufacturer and distributor for breach of warranty shall be reimbursement of the purchase price of the product in the event that a defective condition of the product shall be found to exist. NO OTHER REMEDY INCLUDING BUT NOT LIMITED TO INCIDENTAL OR CONSEQUENTIAL DAMAGES FOR INJURY TO PERSON OR PROPERTY OR ANY OTHER INCIDENT OR CONSEQUENTIAL LOSS SHALL BE AVAILABLE.
Low-VOC Magic Wash 522C Cleaner Tested at The Castle Press and The Dot Printer
MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION

Trade Name: MAGIC WASH 522C  
Generic Name: Lithographic Press Wash  
CAS #: Proprietary Blend  
Manufacturer: Siebert, Inc.  
Address: 8134 West 47th Street  
City: Lyons  
State: IL  
Zip: 60534

DOT Hazard Classification: Not Regulated  
NTPA Codes: Health: 0  Flammability: 0  Reactivity: 0  
HMIS Codes: Health: 1  Flammability: 0  Reactivity: 0  Personal Protection: B

II. HAZARDOUS INGREDIENTS

If present, IARC, NTP, and OSHA carcinogens and chemicals subject to the reporting requirements of SARA Title III Section 313 are identified in this section.

<table>
<thead>
<tr>
<th>Ingredient Name</th>
<th>CAS Number</th>
<th>%wt</th>
<th>TLV</th>
<th>STEL</th>
<th>SARA TITLE III</th>
</tr>
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<tbody>
<tr>
<td>Fat Solvents</td>
<td>Various</td>
<td>70</td>
<td>None established</td>
<td>None established</td>
<td>No</td>
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<td>Surfactants</td>
<td>Various</td>
<td>15</td>
<td>None established</td>
<td>None established</td>
<td>No</td>
</tr>
</tbody>
</table>


III. PHYSICAL DATA

Boiling Point @ 760 mm Hg: 308 - 335°F  
Vapor Pressure @ 80°F: <0.1 mm Hg  
Specific Gravity @ 68°F: 0.52  
Water Solubility (%): Insoluble  
Specific Vapor Density (air=1): <1.0  
% Volatile by Volume: <20  
% Volatile Organic Compound(s):  
Appearance: Clear golden liquid  
Odor: Typical organic odor

IV. FIRE AND EXPLOSION DATA

Flash Point (Method): >300°F (TCC)  
Explosive Limit: LEL - N/E  
UEL - N/E  
Extinguishing Media: Water fog, carbon dioxide, or dry chemical.  
Special Fire Fighting Procedures: Wear self-contained breathing apparatus when fighting chemical fires.  
Unusual Fire and Explosion Hazards: Fine spray/washes may be combustible at temperatures below normal flash point.  
Rags soaked with material, stored for a long period while mixed with strong alkali or acidic materials, may smolder, then smoke, and may even ignite.

V. HEALTH HAZARD DATA

Eyes - May cause temporary irritation, redness, tearing, blurred vision. Contact lenses must not be worn when possibility exists for eye contact due to spraying liquid or airborne particles.  
Skin - Prolonged or repeated contact may cause irritation.
Breathing - Excessive inhalation of vapors may cause nasal and respiratory irritation, central nervous system effects including dizziness, weakness, fatigue, nausea, headache and possible unconsciousness. Swallowing - Can cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

First Aid/Emergency Procedures

Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet and get medical attention.
Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.
Eyes: Flush with copious amounts of water. Get medical attention.
Ingestion: Do not induce vomiting. If large quantity is swallowed, give lukewarm water (pint). NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Get medical attention immediately. Risk of damage to lungs exceeds poisoning risk.
Primary Entry Routes: Inhalation, skin contact.
Chronic Health Effects: Chronic overexposure may aggravate existing skin, eye and lung conditions.

VI. REACTIVITY DATA

Incompatibilities: Avoid contact with strong oxidizing materials, strong alkalis, strong mineral acids.
Hazardous Decomposition Products: Carbon monoxide oxides.
Conditions to Avoid: None.

VII. SPILL OR LEAK PROCEDURES

Procedures for Spill/Leak:

Eliminate all ignition sources (flares, flames including pilot lights, electrical sparks, etc.).
Small Spill - Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material and transfer to a recovery drum.
Large Spill - Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dilute area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into recovery drums. Prevent run-off to sewers, streams or others bodies of water. Notify proper authorities, as required, that a spill has occurred.

Waste Management:


VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection:

If workplace exposure limit(s) of product is exceeded, a NIOSH/MSHA approved air supplied respirator is advised in the absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain minimum exposure.
Eye Protection: Chemical Splash Proof Goggles and full face shield are advised for operations where eye or face contact can occur.
Gloves: Wear impervious gloves.
Other Protective Equipment: To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

IX. SPECIAL PRECAUTIONS
MAGIC WASH 522C

Special Handling/Storage:
To avoid skin contact and ingestion, wash hands and face well before eating or smoking. Do not permit food in
work area. Avoid breathing mists if generated. Store at room temperature. Recom container when not in use. Do
not store near acids, bases or flammable liquids. Containes of this material should be rinsed when emptied, since
emptied containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given in this data
sheet must be observed.

As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply
with applicable federal and state law(s). However, no warranty or representation with respect to such information is intended or given.

Date revised: 04/01/2001
jpm
Low-VOC Cleaner Tested at Lithographix, Tedco, Oberthur Card Systems and Huhtamaki
MATERIAL SAFETY DATA SHEET

I. PRODUCT IDENTIFICATION
Trade Name: MAGIC UV WASH
Generic Name: Lithographic UV / EB Ink Roller Wash
Manufacturer: SIEBERT, INC.
Address: 8134 West 47th Street
City: Lyons State: IL Zip: 60534 USA
CAS #: Proprietary Blend
Emergency Phone #: (800) 535-5053
Technical Phone #: (708) 442-2010

DOT Hazard Classification: Not Regulated
NFPA Codes: Health - 1 Flammability - 0 Reactivity - 0
HMIS Codes: Health - 1 Flammability - 0 Reactivity - 0 Personal Protection - B

II. HAZARDOUS INGREDIENTS
If present, IARC, NTP, and OSHA carcinogens and chemicals subject to the reporting requirements of SARA Title III Section 313 are identified in this section.

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<th>STEL</th>
<th>SARA TITLE III</th>
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<td>70 to 90</td>
<td>None established</td>
<td>None established</td>
<td>No</td>
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III. PHYSICAL DATA
Boiling Point: @ 760 mm Hg. (initial): 212°F
Vapor Pressure @ 80°F: <1 mm Hg
Specific Gravity @ 68°F: 0.99
Water Solubility (%): Soluble
Specific Vapor Density (air=1): <1
% Volatile by Volume: ~30
% Volatile Organic Compound(s), (EPA Method 24): <2.0
Appearance: Clear liquid
Odor: Mild organic odor

IV. FIRE AND EXPLOSION DATA
Flash Point (Method): Not Applicable
Explosive Limit: LEL - N/E UEL - N/E
Extinguishing Media: Water fog, carbon dioxide, or dry chemical.
Special Fire Fighting Procedures: Wear self-contained breathing apparatus when fighting chemical fires.
Unusual Fire and Explosion Hazards: None Known.

V. HEALTH HAZARD DATA
Eyes - May cause severe irritation, tearing, blurred vision. Contact lenses must not be worn when possibility exists for eye contact due to spraying liquid or airborne particles.
Skin - Prolonged or repeated contact may cause irritation.
Breathing - Excessive inhalation of vapors can cause nasal and respiratory irritation, central nervous system effects including dizziness, fatigue, nausea, and headache.
Swallowing - Can cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

First Aid/Emergency Procedures
Inhalation: Remove to fresh air. If breathing is difficult, administer oxygen. If breathing has stopped, give artificial respiration. Keep person warm, quiet and get medical attention.
Skin Contact: Wash thoroughly with soap and water. Remove contaminated clothing. Launder contaminated clothing before re-use.

Eyes: Flush with copious amounts of water. Get medical attention.

Ingestion: Do not induce vomiting. If large quantity is swallowed, give lukewarm water (pint). NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. Get medical attention immediately. Risk of damage to lungs exceeds poisoning risk.

Primary Entry Route(s): Inhalation, eye contact, skin contact.

Chronic Health Effects: Chronic overexposure may aggravate existing skin, eye and lung conditions.

VI. REACTIVITY DATA


Incompatibilities: Avoid contact with strong oxidizing materials, strong mineral acids and chlorine bleach.

Hazardous Decomposition Products: Carbon monoxide, oxides.

Conditions to Avoid: None known.

VII. SPILL OR LEAK PROCEDURES

 Procedures for Spill/Leak:
Small Spill - Absorb liquid on paper, vermiculite, floor absorbent, or other absorbent material and transfer to a recovery drum.
Large Spill - Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Stop spill at source, dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into recovery drums. Prevent runoff to sewers, streams or others bodies of water. Notify proper authorities, as required, that a spill has occurred.
Waste Management:

VIII. SPECIAL PROTECTION INFORMATION

Respiratory Protection: If workplace exposure limit(s) of product is exceeded, a NIOSH/MSHA approved air supplied respirator is advised in the absence of proper environmental control. OSHA regulations also permit other NIOSH/MSHA respirators (negative pressure type) under specified conditions. Engineering or administrative controls should be implemented to reduce exposure.

Ventilation: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain minimum exposure.

Eye Protection: Chemical Splash Proof Goggles and full face shield are advised for operations where eye or face contact can occur.

Gloves: Wear impervious gloves.

Other Protective Equipment: To prevent repeated or prolonged skin contact, wear impervious clothing and boots.

IX. SPECIAL PRECAUTIONS

Special Handling/Storage:
To avoid skin contact and ingestion, wash hands and face well before eating or smoking. Do not permit food in work area. Avoid breathing mists if generated. Store at temperatures between 45°F and 110°F. Do not freeze. Reseal container when not in use. Do not store near acids, bases or flammables. Containers of this material should be rinsed when emptied, since emptied containers retain product residues (vapor, liquid, and/or solid). All hazard precautions given in this data sheet must be observed.

As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state law(s). However, no warranty or representation with respect to such information is intended or given.

Date revised: 11/01/2001
Low-VOC Cleaner Ingredient Tested at Anderson and Oberthur Card Systems
GLYCOL ETHER DPM

THIS MSDS COMPLIES WITH 29 CFR 1910.1200 (THE HAZARD COMMUNICATION STANDARD)

Product Name: GLYCOL ETHER DPM
CAS NUMBER: 34590-94-8
BENCO SALES INC
P O BOX 1415
CROSSVILLE TN 38555

PRODUCT: 3459010
INVOICE: 655246
SHIP DATE: 5/23/99
TO: BENCO SALES INC
PRINT DRIVE
CROSSVILLE TN 38555

ATTN: PLANT MGR./SAFETY DIR.

General or Generic ID: GLYCOL ETHER
DOT Hazard Classification: COMBUSTIBLE (175.13B)

SECTION 3 - PRODUCT IDENTIFICATION

INGREDIENT

DIPROPYLENE GLYCOL MONOMETHYL ETHER
CAS #: 34690-94-8

% (lb. wt.) PEL TEL Note
--- --- --- ---
>15 100 PPM - SKIN 100 PPM - SKIN (1)

Notes:
(1) SKIN ABSORPTION MAY POTENTIALLY CONTRIBUTE TO THE OVERALL EXPOSURE TO THIS MATERIAL. APPROPRIATE MEASURES SHOULD BE TAKEN TO PREVENT ABSORPTION SO THAT THE TLV IS NOT INVALIDATED.

OSHA/ACEH SHORT TERM EXPOSURE LIMIT (STEL) FOR DIPROPYLENE GLYCOL MONOMETHYL ETHER IS 150 PPM.

SECTION 4 - PHYSICAL DATA

Boiling Point

<table>
<thead>
<tr>
<th>For PRODUCT</th>
<th>156.00</th>
<th>378.00 deg F</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>160.00</td>
<td>122.22 deg C</td>
</tr>
</tbody>
</table>

Vapor Pressure

<table>
<thead>
<tr>
<th>For PRODUCT</th>
<th>&lt; 0.10 mm Hg</th>
</tr>
</thead>
</table>

Specific Vapor Density

<table>
<thead>
<tr>
<th>AIR = 1</th>
<th>68.60 deg F</th>
</tr>
</thead>
</table>

Specific Gravity

<table>
<thead>
<tr>
<th>.952</th>
<th>.956</th>
</tr>
</thead>
</table>

Percent Volatiles

| 100.00% |

Evaporation Rate

| 1/BU AC = 1 |

SECTION 5 - FIRE AND EXPLOSION INFORMATION

FLASH POINT (MMCC) 167.0 deg F (75.3 deg C)

EXPLOSIVE LIMIT (PRODUCT): LOWER - 1.12%

EXTINGUISHING MEDIA: ALCOHOL FOAM OR CARBON DIOXIDE OR DRY CHEMICAL

HAZARDOUS DECOMPOSITION PRODUCTS: HYDROGEN, HYDROGEN SULFIDE, METHANOL, ACETONE, ACETIC ACID, VARIOUS HYDROCARBONS, ETC.

FIREFIGHTING PROCEDURES: WEAR SELF-CONTAINED BREATHING APPARATUS WITH A FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE MODE WHEN FIGHTING FIRES.

SPECIAL FIRE & EXPLOSION HAZARDS: FIRES ARE HEAVIER THAN AIR AND MAY TRAVEL ALONG THE GROUND OR BE MOVED BY VENTILATION AND IGNITED BY HEAT, PILOT LIGHTS, OTHER FLAMES AND IGNITION SOURCES AT LOCATIONS DISTANT FROM MATERIAL HANDLING POINT.

NEVER USE MELTING OR CUTTING TORCH OR NEAR DRUM (EVEN EMPTY) BECAUSE PRODUCT (EVEN JUST RESIDUE) CAN IGNITE EXPLODINGLY.

ALL FIVE GALLON PAINTS AND LARGER METAL CONTAINERS INCLUDING TANK CARS AND TANK TRUCKS SHOULD BE GROUNDED AND/OR BONDED WHEN MATERIAL IS TRANSFERRED.

NFPA CODES: HEALTH- 0 FLAMMABILITY- 2 REACTIVITY- 0

SECTION 6 - HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LEVEL

| 100 PPM - SKIN |

THRESHOLD LIMIT VALUE

| 100 PPM - SKIN |

COPYRIGHT 1989 CONTINUED ON PAGE: 2
GLYCOL ETHER DPM

SECTION IV - HEALTH HAZARD (DAI-4) (Continued)

EFFECTS OF ACUTE OVEREXPOSURE: FOR PRODUCT

EYES - CAN CAUSE IRRITATION.

BREATHEING - EXCESSIVE INHALATION OF VAPORS CAN CAUSE NASAL AND RESPIRATORY IRRITATION AND CENTRAL NERVOUS SYSTEM EFFECTS INCLUDING DIZZINESS, HEADACHES, FEVER, NAUSEA, HEADACHES AND POSSIBLE UNCONSCIOUSNESS.

SWALLOWING - SLIGHTLY TOXIC. MAY PRODUCE SIGNS OF INGESTION CHARACTERIZED BY MOUTH BURNING, DIZZINESS, HEADACHE, NAUSEA, MENTAL CONFUSION, POSSIBLY SLURRED SPEECH, AND STUPOR, DEPENDING ON THE QUANTITY OF MATERIAL INGESTED.

FIRST AID:

IF ON SKIN: THOROUGHLY WASH EXPOSED AREA WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. LAUNDER CONTAMINATED CLOTHING BEFORE RE-USE.

IF IN EYES: FLUSH WITH LARGE AMOUNTS OF WATER, LIFTING UPPER AND LOWER LIDS OCCASIONALLY.

IF SWALLOWED: IMMEDIATELY DRINK TWO GLASSES OF WATER AND INDUCE VOMITING BY EITHER GIVING SPECIFIC SYRUP OR BY PLACING FINGER AT BACK OF THROAT. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

IF BREATHED: IF AFFECTED, REMOVE INDIVIDUAL TO FRESH AIR. IF BREATHING IS DIFFICULT, ADMINISTER OXYGEN. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND GET MEDICAL ATTENTION.

PRIMARY ROUTES OF ENTRY:

INHALATION, SKIN ABSORPTION, SKIN CONTACT

EFFECTS OF CHRONIC OVEREXPOSURE: FOR PRODUCT

OVEREXPOSURE TO THIS MATERIAL OR ITS COMPONENTS HAS NOT BEEN FOUND TO CAUSE THE FOLLOWING EFFECTS IN LABORATORY ANIMALS: LIVER ABNORMALITIES, KIDNEY DAMAGE.

SECTION V - REACTIVITY DATA

HAZARDOUS POLYMERIZATION: CANNOT OCCUR

STABILITY: STABLE

INCOMPATIBILITY: AVOID CONTACT WITH STRONG OXIDIZING AGENTS.

SECTION VI - SPILL, FIRE, BLEACH PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED:

SMALL SPILL: ABSORB LIQUID ON PAPER, VERMICULITE, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND TRANSFER TO HOOD.

VENTILATE AREA.

LARGE SPILL: ELIMINATE ALL IGNITION SOURCES (FLAMES, FLARES INCLUDING DIGITAL LIGHTS, ELECTRICAL SPARKS). PERSONS NOT WEARING PROTECTIVE EQUIPMENT SHOULD BE EXCLUDED FROM AREA OF SPILL UNTIL CLEAN-UP HAS BEEN COMPLETED. STOP SPILL AT SOURCE. DRY AREA OF SPILL TO PREVENT SPREADING. DUMP LIQUID INTO SALVAGE TANK. REMAINING LIQUID MAY BE TAKEN UP ON SAND, SAWDUST, FLOOR ABSORBENT, OR OTHER ABSORBENT MATERIAL AND SHOVeled INTO CONTAINERS.

PREVENT RUN-OFF TO STREAMS, SEWERS, STREAMS OR OTHER BODIES OF WATER. IF RUN-OFF OCCURS, NOTIFY PROPER AUTHORITIES AS REQUIRED. FRESH WATER OR LESSENGOILSIVE MATERIALS.

WASTE DISPOSAL METHOD:

SMALL SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

LARGE SPILL: DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS.

SECTION VII - RESPIRATORY PROTECTION, PERSONAL PROTECTIVE EQUIPMENT, TO BE USED

RESPIRATORY PROTECTION: IF WORKPLACE EXPOSURE LIMITS OF PRODUCT OR ANY COMPONENT IS EXCEEDED, SEE SECTION VI. A HIGH/EXHAUST WAHSLLE RESPIRATOR IS ADVISED IN ABSENCE OF APPROPRIATE ENVIRONMENTAL CONTROL. DSA OR OTHER HIGH/EXHAUST WAHSLLE RESPIRATOR IS ADVISED IN ABSENCE OF APPROPRIATE ENVIRONMENTAL CONTROL. ENGINEERS OR ADMINISTRATIVE CONTROLS SHOULD BE IMPLEMENTED TO REDUCE EXPOSURE.

VENTILATION: PROVIDE SUFFICIENT MECHANICAL (GENERAL AND/OR LOCAL EXHAUST) VENTILATION TO MAINTAIN EXPOSURE BELOW TILS.

PROTECTIVE GLOVES: WEAR RESISTANT GLOVES SUCH AS: NITRILE RUBBER, NITRILE RUBBER, NATURAL RUBBER

EYE PROTECTION: CHEMICAL SPLASH GOGGLES IN COMPLIANCE WITH OSHA REGULATIONS ARE ADVISED; HOWEVER, OSHA REGULATIONS ALSO PERMIT OTHER TYPE SAFETY GLASSES. (CONSULT YOUR SAFETY EQUIPMENT SUPPLIER)

OTHER PROTECTIVE EQUIPMENT: TO PREVENT REPEATED OR PROLONGED SKIN CONTACT, WEAR IMPERVIOUS CLOTHING AND BOOTS.

SECTION VIII - SPECIAL PRECAUTIONS OR OTHER COMMENTS

CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EJECTED. SINCE EJECTED CONTAINERS RETAIN PRODUCT RESIDUES (VAPOR, LIQUID), AND/OR SOLID, ALL PACKAGING PRECAUTIONS GIVEN IN THE DATA SHEET MUST BE OBSERVED.

THE INFORMATION ACCUMULATED HEREIN IS BELIEVED TO BE ACCURATE BUT IS NOT WARRANTED TO BE WHETHER ORIGINATING WITH THE COMPANY OR NOT. RECIPIENTS ARE ADVISED TO CONFIRM IN ADVANCE OF NEED THAT THE INFORMATION IS CURRENT, APPLICABLE, AND SUITABLE TO THEIR CIRCUMSTANCES.

COPYRIGHT 1989 LAST PAGE -- SEE ATTACHMENT PAGE ENCLOSED -- LAST PAGE
DECIMALS
This definition page is intended for use with Material Safety Data Sheets supplied by the Ashland Chemical Company. Receipt of these data sheets should consult the OSHA Safety and Health Standards (29 CFR 1910), particularly subsection G - Occupational Health and Environmental Control, and subpart I - Personal Protective Equipment, for general guidance on control of potential Occupational Health and Safety Hazards.

SECTION I
PRODUCT IDENTIFICATION

GENERAL OR GENERIC ID: Chemical family or product description.

DOT HAZARD CLASSIFICATION: Product meets DOT criteria for hazards listed.

SECTION II
COMPONENTS

Components are listed in this section if they present a physical or health hazard and are present at or above 1% in the mixture. If a component is identified as a CARCINOGEN by NTP, IARC or OSHA as of the date on the MSDS, it will be listed and footnoted in this section when present at or above 0.1% in the product. Negative conclusions concerning carcinogenicity are not reported. Additional information may be found in Section V. Components subject to the reporting requirements of Section 313 of SARA Title III are identified in the footnotes in this section, along with typical percentages. Other components may be listed if deemed appropriate.

Exposure recommendations are for components. OSHA Permissible Exposure Limits (PELs) and American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs) appear on the line with the component identification. Other recommendations appear as footnotes.

SECTION III
PHYSICAL DATA

BOILING POINT: Of product if known. The lowest value of the components is listed for mixtures.

VAPOR PRESSURE: Of product if known. The highest value of the components is listed for mixtures.

SPECIFIC VAPOR DENSITY: Compared to AIR = 1. If Specific Vapor Density of product is not known, the value is expressed as lighter or heavier than air.

SPECIFIC GRAVITY: Compared to WATER = 1. If Specific Gravity of product is not known, the value is expressed as less than or greater than water.

pH: If applicable.

PERCENT VOLATILES: Percentage of material with initial boiling point below 425 degrees Fahrenheit.

EVAPORATION RATE: Indicated as faster or slower than ETHYL ETHER, unless otherwise stated.

SECTION IV
FIRE AND EXPLOSION DATA

FLASH POINT: Method identified.

EXPLOSION LIMITS: For product if known. The lowest value of the components is listed for mixtures.

HAZARDOUS DECOMPOSITION PRODUCTS: Known or expected hazardous products resulting from heating, burning or other reactions.

SECTION IV (cont.)

EXTINGUISHING MEDIA: Following National Fire Protection Association criteria.

FIREFIGHTING PROCEDURES: Minimum equipment to protect firefighters from toxic products of vaporization, combustion or decomposition in fire situations. Other firefighting hazards may also be indicated.

SPECIAL FIRE AND EXPLOSION HAZARDS: States hazards not covered by other sections.

NFPA CODES: Hazard ratings assigned by the National Fire Protection Association.

SECTION V
HEALTH HAZARD DATA

PERMISSIBLE EXPOSURE LIMIT: For product.

THRESHOLD LIMIT VALUE: For product.

EFFECTS OF ACUTE OVEREXPOSURE: Potential local and systemic effects due to single or short term overexposure to the eyes and skin or through inhalation or ingestion.

EFFECTS OF CHRONIC OVEREXPOSURE: Potential local and systemic effects due to repeated or long term overexposure to the eyes and skin or through inhalation or ingestion.

FIRST AID: Procedures to be followed when dealing with accidental overexposure.

PRIMARY ROUTE OF ENTRY: Based on properties and expected use.

SECTION VI
REACTIVITY DATA

HAZARDOUS POLYMERIZATION: Conditions to avoid to prevent hazardous polymerization resulting in a large release of energy.

STABILITY: Conditions to avoid to prevent hazardous or violent decomposition.

INCOMPATIBILITY: Materials and conditions to avoid to prevent hazardous reactions.

SECTION VII
SPILL OR LEAK PROCEDURES

Reasonable precautions to be taken and methods of containment, clean-up and disposal. Consult federal, state and local regulations for accepted procedures and any reporting or notification requirements.

SECTION VIII
PROTECTIVE EQUIPMENT TO BE USED

Protective equipment which may be needed when handling the product.

SECTION IX
SPECIAL PRECAUTIONS OR OTHER COMMENTS

Covers any relevant points not previously mentioned.

ADDITIONAL COMMENTS

Containers should be either reconditioned by CERTIFIED firms or properly disposed of by APPROVED firms. Disposal of containers should be in accordance with applicable laws and regulations. "EMPTY" drums should not be given to individuals. Serious accidents have resulted from the misuse of "EMPTY" containers (drums, pails, etc.). Refer to Section V and IX.
Low-VOC Cleaner Ingredient Tested at Anderson
1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name</th>
<th>Eastman(TM) EEP Solvent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product Identification Number(s)</td>
<td>12476-00, P1247000, P1247001, P1247002, P1247003, P1247004, P1247005, P1247006, P1247007, P1247008, P1247010, P1247009, P12470M2, P12470M4, P1247011</td>
</tr>
<tr>
<td>Manufacturer/Supplier</td>
<td>Eastman Chemical Company</td>
</tr>
<tr>
<td></td>
<td>Eastman Road</td>
</tr>
<tr>
<td></td>
<td>Kingsport, TN 37662</td>
</tr>
<tr>
<td></td>
<td>US</td>
</tr>
<tr>
<td>MSDS Prepared by</td>
<td>Eastman Product Safety and Health</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>3-ethoxypropanoic acid, ethyl ester</td>
</tr>
<tr>
<td>Synonym(s)</td>
<td>12473-03 970309</td>
</tr>
<tr>
<td>Molecular Formula</td>
<td>C7H14O3</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>146.19</td>
</tr>
<tr>
<td>Product Use</td>
<td>solvent</td>
</tr>
<tr>
<td>OSHA Status</td>
<td>hazardous</td>
</tr>
</tbody>
</table>

For emergency health, safety & environmental information, call 800-EASTMAN.

For emergency transportation information, call CHEMTREC at 800-424-9300 or call 800-EASTMAN.

2. COMPOSITION INFORMATION ON INGREDIENTS

(Typical composition is given, and it may vary. A certificate of analysis can be provided, if available.)

<table>
<thead>
<tr>
<th>Weight %</th>
<th>Component</th>
<th>CAS Registry No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>&gt;99.5%</td>
<td>ethyl 3-ethoxypropanoate</td>
<td>753-69-9</td>
</tr>
<tr>
<td>&lt;0.02%</td>
<td>formaldehyde</td>
<td>55-00-0</td>
</tr>
<tr>
<td>&lt;0.02%</td>
<td>butylated hydroxytoluene (as inhibitor)</td>
<td>118-37-0</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION

CAUTION!
COMBUSTIBLE LIQUID AND VAPOR
FORMS PEROXIDES IF MATERIAL BECOMES UNINHIBITED
HIGH VAPOR CONCENTRATIONS MAY CAUSE DROWSINESS

HMIS® Hazard Ratings:
- Health - 1,
- Flammability - 2,
- Chemical Reactivity - 1

HMIS® ratings involve data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.
4. FIRST-AID MEASURES

Inhalation: Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
Eyes: Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. Get medical attention if symptoms persist.
Skin: Wash with soap and water. Get medical attention if symptoms occur.
Ingestion: Seek medical advice.

5. FIRE FIGHTING MEASURES

Extinguishing Media: water spray, carbon dioxide, dry chemical, foam
Special Fire-Fighting Procedures: Wear self-contained breathing apparatus and protective clothing. Use water spray to keep fire-exposed containers cool. USE WATER WITH CAUTION. Material will float and may ignite on surface of water. Water may be ineffective in fighting the fire. The fire could easily be spread by the use of water in an area where the water could not be contained.
Hazardous Combustion Products: carbon dioxide, carbon monoxide
Unusual Fire and Explosion Hazards: Forms peroxides of unknown stability if material becomes uninhibited. Combustible.

6. ACCIDENTAL RELEASE MEASURES

Use personal protective equipment. Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.
For Large Spills: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

7. HANDLING AND STORAGE

Personal Precautionary Measures: Avoid breathing high vapor concentrations. Use only with adequate ventilation. Wash thoroughly after handling.
Prevention of Fire and Explosion: Keep away from heat and flame. Keep from contact with oxidizing materials. Keep inhibited. Minimize exposure to air. After opening, purge container with nitrogen before reclosing. Periodically test for peroxide formation on long-term storage. If peroxide formation is suspected, do not open or move container. Do not allow to evaporate to near dryness. Do not distill to near dryness.
Storage: Keep container closed.
Additional Information: Store away from heat and light.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Country specific exposure limits have not been established or are not applicable unless listed below.

ETHYL 3-ETHOXYPROPIONATE
MATERIAL SAFETY DATA SHEET

Revision Date: 07/15/2004
MSDSANSI/ANSI/EN/150000001149/Version 12.0

Eastman Chemical Company occupational exposure limit:
Time Weighted Average (TWA): 50 ppm,
Eastman Chemical Company occupational exposure limit:
Short Term Exposure Limit (STEL): 100 ppm,

Ventilation: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 6, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Eye Protection: It is a good industrial hygiene practice to minimize eye contact.
Recommended Decontamination Facilities: eye bath, washing facilities.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Physical Form:</th>
<th>liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color:</td>
<td>colorless</td>
</tr>
<tr>
<td>Odor:</td>
<td>ester, pungent</td>
</tr>
<tr>
<td>Odor Threshold:</td>
<td>0.02 ppm</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>0.95 (20 °C)</td>
</tr>
<tr>
<td>Vapor Pressure:</td>
<td>25 °C; 2.0 mbar</td>
</tr>
<tr>
<td>Vapor Density:</td>
<td>5.0</td>
</tr>
<tr>
<td>Freezing Point:</td>
<td>&lt; -50 °C</td>
</tr>
<tr>
<td>Boiling Point:</td>
<td>165 °C</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>0.12 (n-butyl) acetate = 1</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>1.20 mPa s (25 °C)</td>
</tr>
<tr>
<td>Solubility in Water:</td>
<td>29 g/l</td>
</tr>
<tr>
<td>Octanol/Water Partition Coefficient:</td>
<td>P: 22.4; log P: 1.35</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>59 °C (Stafrash closed cup)</td>
</tr>
<tr>
<td>Autoignition Temperature:</td>
<td>377 °C (ASTM E659)</td>
</tr>
<tr>
<td>Thermal Decomposition Temperature:</td>
<td>(HPDTA) No exotherm to 400°C</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

| Stability: | Stable. Forms peroxides if material becomes uninhibited. |
| Incompatibility: | Material reacts with strong oxidizing agents. |
| Hazardous Polymerization: | Will not occur. |

11. TOXICOLOGICAL INFORMATION

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Page 3
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MATERIAL SAFETY DATA SHEET

Revision Date: 07/15/2004
MSDSANSI/ANSI/EN/15000001149/Version 12.0

Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.

<table>
<thead>
<tr>
<th>Oral LD-50 (male rat)</th>
<th>&gt;5,000 mg/kg (highest dose tested)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral LD-50 (female rat)</td>
<td>4,300 mg/kg</td>
</tr>
<tr>
<td>Inhalation LC-50 (rat)</td>
<td>6 hours: &gt; 1000 ppm (highest concentration tested)</td>
</tr>
<tr>
<td>Dermal LD-50 (guinea pig)</td>
<td>&gt; 20 ml/kg (highest dose tested)</td>
</tr>
<tr>
<td>Skin irritation (guinea pig)</td>
<td>slight</td>
</tr>
<tr>
<td>Eye Irritation (rabbit)</td>
<td>slight</td>
</tr>
<tr>
<td>Skin Sensitization (guinea pig)</td>
<td>none</td>
</tr>
</tbody>
</table>

12. ECOLOGICAL INFORMATION

Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.

This material is readily biodegraded and is not likely to bioconcentrate.

Oxygen Demand Data:

<table>
<thead>
<tr>
<th>BOD-5</th>
<th>370 mg/l</th>
</tr>
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<tbody>
<tr>
<td>BOD-20</td>
<td>560 mg/l</td>
</tr>
<tr>
<td>COD</td>
<td>1,920 mg/l</td>
</tr>
<tr>
<td>ThBOD</td>
<td>1,970 mg/l</td>
</tr>
</tbody>
</table>

Acute Aquatic Effects Data:

- 96 h EC-50 (fathead minnow): 50 mg/l NOEC: 25 mg/l
- 48 h EC-50 (Daphnia magna): > 400 mg/l NOEC: 470 mg/l
- 72 h EC-50 (Solenaulastrum capricornutum): > 115 mg/l

13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. TRANSPORT INFORMATION

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company’s Hazardous Materials/Dangerous Goods expert for information specific to your situation.
MATERIAL SAFETY DATA SHEET

Revision Date: 07/15/2004
MSDSANSI/ANSI/EN/15600000091149/Version 12.0

DOT (USA)
Class combustible liquid, Packing group III for quantities of 450 liters (119 gallons) or more; not regulated for smaller quantities.

Marine pollutant:
Possible Shipping Description(s):
not regulated

Esters, n.o.s. (ethyl 3-ethoxypropionate)
combustible liquid UN III

Esters, n.o.s. (ethyl 3-ethoxypropionate)
combustible liquid UN 3272 III

Sea - IMDG (International Maritime Dangerous Goods)
Possible Shipping Description(s):
ESTERS, N.O.S. (ethyl 3-ethoxypropionate)
3 UN 3272 III

Air - ICAO (International Civil Aviation Organization)
Possible Shipping Description(s):
Esters, n.o.s. (ethyl 3-ethoxypropionate)
3 UN 3272 III

15. REGULATORY INFORMATION

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: B/3
MATERIAL SAFETY DATA SHEET

Revision Date: 07/15/2004
MSDSANSI/ANSI/EN/15000001149/Version 12.0

SARA 311-312 Hazard Classification(s):
fire hazard
reactive hazard

SARA 313: none, unless listed below

Carcinogenicity Classification (components present at 0.1% or more): none, unless listed below

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act):
This product is listed on the DSL. Any impurities present in this product are exempt from listing.

EINECS (European Inventory of Existing Commercial Chemical Substances): This product is listed on EINECS or otherwise complies with EINECS requirements.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.

16. OTHER INFORMATION


The information contained herein is based on current knowledge and experience; no responsibility is accepted that the information is sufficient or correct in all cases. Users should consider these data only as a supplement to other information. Users should make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials, the safety and health of employees and customers, and the protection of the environment.

Highlighted areas indicate new or changed information.

©COPYRIGHT 2003 BY EASTMAN CHEMICAL COMPANY
Low-VOC Cleaner Ingredient Tested at Anderson
225

--- SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION ---

**CAS**

- Chemical name: 
- NFPA Rating: 
- NFPA Rating: 

--- SECTION 2 - COMPOSITION, INFORMATION ON INGREDIENTS ---

- Chemical name: 
- NFPA Rating: 

--- SECTION 3 - HAZARD IDENTIFICATION ---

### EMERGENCY OVERVIEW

- Colorless liquid, Flash Point: 35 deg C.
- Flammable liquid and vapor. May cause respiratory tract irritation. May irritate eyes and cause skin irritation. May cause central nervous system depression. May cause respiratory tract irritation. May cause cardiovascular effects, hearing abnormalities, central nervous system depression, unconsciousness, and possible death due to respiratory failure. Exposure to material can be hazardous if prolonged or repeated skin contact contact. May cause dermatitis, may cause death to the auditory and respiratory systems. May cause respiratory tract irritation. May cause cardiovascular effects, hearing abnormalities, central nervous system depression, unconsciousness, and possible death due to respiratory failure. Exposure to material can be hazardous if prolonged or repeated skin contact contact. May cause dermatitis, may cause death to the auditory and respiratory systems.

### HEALTH EFFECTS

- Causes severe eye irritation. May cause respiratory tract irritation. May cause central nervous system depression. May cause respiratory tract irritation. May cause cardiac arrhythmias, hearing abnormalities, central nervous system depression, unconsciousness, and possible death due to respiratory failure. Exposure to material can be hazardous if prolonged or repeated skin contact contact. May cause dermatitis, may cause death to the auditory and respiratory systems.

### FIRST AID MEASURES ---

- In case of contact, flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.
- In case of contact, flush skin with plenty of water. Get medical aid immediately.
- In case of contact, flush skin with plenty of water. Get medical aid immediately.

--- SECTION 5 - FIRE FIGHTING MEASURES ---

### GENERAL INFORMATION

- Use water spray to keep fire-exposed containers cool. Flammable liquid and vapor. Vapors are heavier than air and may spread along the floor and collect in low or confined areas.

### EXPLOSION LIMITS

- Lower: 1.4 vol% 
- Upper: 75.0 vol% 

### LIMIT OF EXPLOSION 

- In air: 

--- SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION ---

### ENGINEERING CONTROLS

- Use local exhaust ventilation. Use general or field ventilation. Use other engineering controls to control airborne levels below recommended exposure limits. Use engineering controls that provide the best possible confinement of this material into the workplace. Use engineering controls that provide the best possible confinement of this material into the workplace. Use engineering controls that provide the best possible confinement of this material into the workplace.

### PERSONAL PROTECTIVE EQUIPMENT

- **EYES:** Wear chemical splash goggles.
- **SKIN:** Wear appropriate protective gloves to prevent skin exposure.
- **CLOTHING:** Wear appropriate protective clothing to prevent skin exposure.
- **RESPIRATORS:** Use a respirator that meets OSHA's requirements.
**SECTION 15 - ADDITIONAL INFORMATION**

<table>
<thead>
<tr>
<th>NES</th>
<th>ACCT</th>
<th>2012620002</th>
<th>PO NBR: 282787/L3185938-00</th>
</tr>
</thead>
</table>

**IDC Creation Date:** 6/10/1999  
**Revision Date:** 10/29/2000

This information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of any kind, express or implied, with respect to the information, and we assume no liability resulting from its use. Users should make their own determination of the suitability of this information for their particular purposes. In no way shall the company be liable for any claim, loss, or damage of any kind or nature, direct, indirect, incidental, consequential or exemplary, in connection with the use of the information presented herein, whether arising by contract, tort, or otherwise. Even if the company has been advised of the possibility of such damages, whether in an action of contract, negligence or other tort, in connection with the furnishing, performance or use of the information contained in this document.
Low-VOC Hand Blanket Wash Tested at The Printery
1. COMPANY AND MATERIAL IDENTIFICATION:
   Product Name/Number: Rho-Solv 7150 Blanket Wash
   Synonyms: N. A.
   Chemical Family: Flammable Solvent Blend
   Stock Number: Technical Grade - 7150

2. COMPOSITION OF THE MATERIAL: MIXTURE

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No.</th>
<th>% Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>80 - 90%</td>
</tr>
<tr>
<td>Diethylene Glycol Monobutyl Ether</td>
<td>112-34-5</td>
<td>10 - 15%</td>
</tr>
</tbody>
</table>

3. HAZARDS IDENTIFICATION:

   EXTREMELY FLAMMABLE LIQUID & VAPOR, MAY CAUSE FLASH FIRE.

   Inhalation:
   High concentration of vapors will be irritating to the respiratory tract and may cause dizziness, headache, and dizziness. Central Nervous System effects & possibly death.

   Ingestion:
   Ingestion of larger amounts may produce abdominal pain, nausea and vomiting. Aspiration into lungs can cause lung damage.

   Skin Contact:
   May cause some irritation, drying, redness or cracking to skin

   Eye Contact:
   Vapors may be irritating to eyes. Splashing may cause redness and pain to eyes.

   Symptoms & Signs to Exposure:
   Basically, same symptoms and signs will occur, as given above.
Medical Conditions Aggravated:
Pre-existing medical conditions of the Respiratory System, Skin dermatitis and Eyes may be aggravated by further exposure to this material.

4. **FIRST AID**:

**Inhalation:**
Remove the person to fresh air. If no improvement noticed, then transport to the nearest medical care facility for further treatment.

**Ingestion:**
If swallowed, do not induce vomiting. transport to the nearest medical care facility for further treatment.

**Skin Contact:**
Remove contaminated clothing. Flush exposed area with water followed by washing with soap.

**Eye Contact:**
Flush eyes with water with eyelids open. Rest eyes for 30 minutes. If redness, burning, blurred vision, or swelling persist, transport to the nearest medical care facility for further treatment.

**Advice to Physician:**
Causes CNS depression. Prolonged or repeated exposure may result in dermatitis.

5. **FIRE FIGHTING MEASURES**:
Clear the area of all non-emergency, un-protected personnel.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Flash Point</th>
<th>L.F.L.</th>
<th>L.F.I.</th>
<th>Auto Ignition Temp</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>-20°C – CC</td>
<td>12.8</td>
<td>2.5</td>
<td>465°C (869°F)</td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>115°C – CC</td>
<td>-----</td>
<td>0.9</td>
<td>204°C (399°F)</td>
</tr>
<tr>
<td>Monobutyl Ether</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Specific Hazards:**
Carbon Monoxide may be evolved in case of incomplete combustion. Will float on the surface water and can be re-ignited. Containers exposed to intense heat from fires should be cooled with water to prevent vapor pressure buildup, which could result in container rupture. Containers exposed to direct flame should be cooled with large quantities of water as needed to prevent weakening of container structure or rupture.
MATERIAL SAFETY DATA SHEET
RHO-CHEM CORPORATION
(A Fully Owned Subsidiary of Philip Services Corporation)
425 Isis Avenue, Inglewood, California – 90301
Tel.: (310) 776-4233, Fax: (310) 645-6379
Product: Rhosolv-7150 Blanket Wash, Revision- Initial Release/3-03-06
Page No. 3 of 9

Extinguishing Media:
Use water, foam dry chemical or Carbon dioxide, sand or earth may be used in case of small fires. The extinguishing water must be collected separately and disposed of as a waste. At no instance, this contaminated water will be discharged to the environment or into sewage, city or municipal waters. Material can accumulate static discharge. Empty containers still retain residue, a liquid & or vapor mixture.

Protective Equipment:
Wear full protective clothing and Self contained breathing apparatus for large spill/fire.

6. ACCIDENTAL RELEASE MEASURES
Observe all relevant local, State, Federal and International regulations as applicable.

Protective measures:
Avoid contact with spilled or released material. Immediately remove all contaminated clothing. For guidance on selection of personal protective equipment, please refer to section 8 and for disposal of spilled material refer to section 13 of this MSDS. Shut off leaks, if no risk is involved. Eliminate all possible ignition sources in surrounding area. Use appropriate containment methods to avoid further contamination to environment and to neighboring areas. Avoid spreading or entering the spilled material into the drains, ditches or rivers by using sand, earth or other appropriate barriers. Attempt to Disperse the vapors to divert its flow to a safe location, by using fog sprays, for example. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding all equipment. Monitor area with combustible gas indicator. A leaking drum or container can be rolled or made up side down in the direction opposite to the leaking spot.

Clean Up Methods:
For small liquid spills ( < 1 drum of 55 gal), transfer to a labeled, scallable container by mechanical means for safe disposal. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely.
For large liquid spills ( > 1 drum of 55 gal), transfer by mechanical means such as vacuum truck to a salvage tank for safe disposal. Retain as a contaminated waste. Allow residues to evaporate or soak up with an appropriate absorbent material and dispose of safely. Remove contaminated soil and dispose of safely.

Additional Information:
Notify appropriate authorities if there is a risk involved to the general public or to the environment or to the neighborhood due to the spill or release of this material. Vapor may form an explosive mixture with air. Please report to the National Response Center @ (800) 424-8802 if the spilled quantity exceeds the reportable quantity. (Refer to chapter 15 of this MSDS.
Required under CERCLA (Comprehensive Environment Response, Compensation & Liability Act).
7. **HANDLING AND STORAGE**

**General Precautions:**
Avoid breathing or contact with material. Only use in well-ventilated areas. Wash thoroughly after handling. Use appropriate P.P.E. per section 8 of this MSDS.

**Handling:**
Handle and open the container with **CARE** in well-ventilated area. Remove ignition sources. Avoid sparks. **Do not create friction.** Keep container closed, to avoid emissions and inhalation. Avoid any force opening, creating friction. Avoid contact with skin, eyes and clothing. **Ensure electrical continuity by bonding and grounding all equipment**. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (\( \leq 1 \text{ m/sec} \) until fill pipe is submerged to twice its diameter, then \( \leq 7 \text{ m/sec} \)) Avoid splash filling. Do not use compressed air for filling, discharging or handling operations. The vapor is heavier than air spreads along the ground and distant ignition is possible. Extinguish any naked flames. Do not smoke. Ventilate workplace in such a way that the Occupational Exposure Limit (OEL) is not exceeded. Do not empty into drains. **Avoid handling above its flash point**, otherwise the product will form flammable/explosive vapor-air mixtures.

**Storage:**
Must be stored in a diked (buried) well-ventilated area, away from sunlight, ignition sources and other sources of heat. Store at ambient temperature. Keep away from aerosols, oxidizers, corrosives.

**Product Transfer:**
Keep containers closed when not in use. Do not use compressed air for filling. Discharging or handling. Use grounding bonding wires during transfer.

**Recommended Materials:**
For containers or container linings, use mild steel or Stainless steel. For container paints, use epoxy paint, zinc silicate paint.

**Unsuitable Materials:**
Avoid prolonged contact with natural, butyl or nitrile rubbers.

**Container Recommendation:**
Emptied containers may still contain explosive vapors. Do Not cut, drill grind or perform similar operations on or near containers Do not re-use empty containers without commercial cleaning or reconditioning.
EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits
Following table may be referred in absence of occupational standards for this material.

<table>
<thead>
<tr>
<th>Material</th>
<th>Source</th>
<th>Type</th>
<th>PPM</th>
<th>mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetone</td>
<td>OSHA</td>
<td>TWA</td>
<td>1000</td>
<td>------</td>
</tr>
<tr>
<td>Cal/OSHA</td>
<td>TWA</td>
<td>750</td>
<td>1780</td>
<td></td>
</tr>
<tr>
<td>Cal/OSHA</td>
<td>STEL</td>
<td>1000</td>
<td>2400</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>TWA</td>
<td>500</td>
<td>N.A</td>
<td></td>
</tr>
<tr>
<td>ACGIH</td>
<td>STEL</td>
<td>750</td>
<td>N.A</td>
<td></td>
</tr>
<tr>
<td>Diethylene Glycol</td>
<td>OSHA</td>
<td>TWA</td>
<td>135</td>
<td>N/A</td>
</tr>
<tr>
<td>Monobutyl Ether</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**General Information:**
Wash hands before eating, drinking, smoking and using toilet.

**Exposure Control:**
The levels of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local environment. Ensure adequate ventilation to control airborne concentration, below the exposure guidelines/limits. Eye washes and showers must be used in case of an emergency.

**Personal Protective Equipment:**
Use Personal Protective Equipment (P.P.E.) that are NIOSH approved and/or recommended per National Standards.

**Respiratory Protection:**
If an engineering control fail to maintain airborne concentrations to a level which is safe to protect workers’ health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Also check with the Respiratory Protective Equipment suppliers and refer to the OSHA Respiratory Standard 1910.134 for detailed information. When air purifying respirator is required, select appropriate respirator and filters suitable for organic gases and vapors. Where air purifying respirators are un-suitable, for example airborne concentration is high, or oxygen is deficient, confined space etc., use appropriate positive pressure, breathing apparatus. For regular handling, full face respirator with organic vapor cartridges is recommended in order to protect the face from splashes.

**Hand Protection:**
Nitrile rubber gloves give good chemical resistance and can be used for regular use. In case of direct incidental contact, splash, clean up etc., PVC or Neoprene rubber gloves should be used.
Eye Protection:
Chemical Splash goggles (Chemical mono-goggles) should be used

Protective Clothing:
Use chemical resistant clothing, chemical resistant shoes or boots.

Environmental Exposure Controls:
Follow and comply with the local, state and federal guidelines for V.O.C. emission control limits, and for the discharge of exhaust air containing vapors of this material.

9. PHYSICAL AND CHEMICAL PROPERTIES of Acetone, being a major component in this mixture:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Colorless volatile liquid</td>
</tr>
<tr>
<td>Odor</td>
<td>Distinct fragrant odor</td>
</tr>
<tr>
<td>Boiling point</td>
<td>56.5°C (133°F) @ 760 mm Hg</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>400 @ 39.5°C (104°F)</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.79 @ 20°C</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Miscible in water</td>
</tr>
<tr>
<td>Vapor density (air =1)</td>
<td>2.0 (Air =1)</td>
</tr>
<tr>
<td>Volatile Organic Compound</td>
<td>114.4 gms/L, as Diethylene glycol Monobutyl Ether</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Stability:
Stable under normal conditions of use.

Conditions to Avoid:
Avoid heat, sparks, open flames and other ignition sources.

Materials to Avoid:
Strong Oxidizing agents, Conc. Nitric or Sulfuric acid, halogenated compounds

Hazardous Decomposition Products:
Will not occur.
11. TOXICOLOGICAL INFORMATION

Basis of Assessment:
The information given herein is based on similar products, and or compounds.

**Acetone:**
- Oral Toxicity: LD50: 5800 mg/kg, rat
- Inhalation Toxicity: LC50: 5, 100 mg/m³
- Carcinogenicity: Not classified as a human carcinogen by ACGIH or IARC.

**Diethylene Glycol Monobutyl Ether:**
- Acute Oral Toxicity:
  - Ingestion (rat) LD50: 7,292 mg/Kg
  - Oral (Mouse) LD50: 2,406 mg/Kg

- Acute Dermal Toxicity:
  - Dermal (rabbit) LD50: 2,764 mg/Kg
  - Skin (rabbit): Slight irritant
  - Eye (rabbit): Moderate.

- Carcinogenicity: Not a IARC or NTP carcinogen.

12. ECOLOGICAL INFORMATION

**Acetone:**
Acetone is not expected to be toxic to aquatic life.

- Environmental Toxicity: Less toxic: LC50/96 - hour -> 100 mg/l

- Mobility: Will quickly evaporate from water, will evaporate if released to soil.

- Bioaccumulation: Does not bio-accumulate significantly.

- Persistence/ degradability: Moderately bio-degradable, by reaction with photo-chemically produced hydroxyl radicals.
13. DISPOSAL METHODS

Material Disposal:
Recover or recycle if possible. It is the responsibility of a waste generator to determine the extent of hazard, and physical properties of the material generated. Additionally, the generator of the waste of this material must determine its waste classification and disposal methods in compliance with local, state and federal or other regulations.

Container Disposal:
Drain the container thoroughly, and then vent it in a safe place away from sparks, and fire. Residues may cause an explosion hazard. Do not puncture, cut or weld un-cleaned containers. Send the waste drum to the drum re-coverer or reclamer.

Local Regulatory Compliance:
The disposal should be in compliance with applicable local, regional, state and national laws and regulations.

14. TRANSPORT INFORMATION

U. S. Department of Transportation Classification (49 CFR)
Identification number: UN 1993
Proper shipping name: Flammable liquid, n. o. s. (Acetone/ Diethylene glycol Monobutyl ether mixture)
Class/Division: 3
Packing Group: II
Contains OIL
Emergency Response Guide No.: 128
5. **REGULATORY INFORMATION**

Federal Regulatory Status:
Notification:

- TSCA
  Both the components of this mixture are listed on TSCA inventory.

**SARA TITLE III, Sections 311, 312**
Acetone is classified as fire hazard, and D.E.G.M.B.E. as acute hazard.

**SARA Toxic Release Inventory (TRI) 313**
State Regulatory Information:
California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)
Not listed.

South Coast Air Quality Management District:
VOC content: 114.4 g/l

6. **OTHER INFORMATION**

**HMIS Rating:**
H=1, F=3, R = 0
(Health, Flammability & Reactivity)

**NFPA Rating:**
H=1, F=3, R = 0
(Health, Flammability & Reactivity)

**MSDS Revision level:**
Initial Release /03-03-06

**Uses and Restrictions:**
Industrial Cleaning Solvent

**MSDS Distribution:**
The copy of this MSDS should be available to everyone who may handle this material.

**Disclaimer:**
The content and format of this MSDS is in accordance with the OSHA Hazard Communication Standard, 29 CFR 1910.1200 and the information contained herein is to the best of our knowledge for its original form in which it is supplied and is intended as guidelines for the purpose of handler’s and environmental safety. No warranty or guarantee is expressed or implied regarding the accuracy of this data or of the resulting product, using this material.
Low-VOC Cleaner Ingredient Tested at Tedco
VAN WATER & ROGER -- ISOPROPYL ALCOHOL -- 6505-00-261-7256

Product Identification

Product ID: ISOPROPYL ALCOHOL
MSDS Date: 05/01/1993
FSC: 6505
NIIN: 00-261-7256
MSDS Number: BVGJL

Responsible Party

Company Name: VAN WATER & ROGER
Address: 2600 CAMPUS DR
Box: 5932
City: SAN MATEO
State: CA
ZIP: 94403-2522
Country: US
Info Phone Num: 714-864-2310
Emergency Phone Num: 800-424-9300
Preparer's Name: C. A. EISENBIARD
CAGE: 09N91

Contractor Identification

Company Name: CHEMICAL COMMODITIES AGENCY, INC.
Address: 27147 PACIFIC STREET
Box: 5932
State: CA
ZIP: 92346-2640
Country: US
Phone: 909-864-2310
CAGE: 60777
Company Name: VAN WATER & ROGERS INC., SUB OF UNIVAR
Address: 6100 CARILLON POINT
Box: 5932
City: KIRKLAND
State: WA
ZIP: 98033
Country: US
Phone: 206-889-3400
CAGE: 09N91
Company Name: VAN WATERS AND ROGERS
Address: 2256 JUNCTION AVE
City: SAN JOSE
State: CA
ZIP: 95131
Country: US
Phone: 408-435-8700/800-424-9300 (CHEMTREC)
CAGE: 0AN91

Composition/Information on Ingredients

Ingredient Name: ISOPROPYL ALCOHOL (SARA III) (PER SPEC. MATERIAL IS "ISOPROPYL ALCOHOL, N.F." FORMULATION COULD NOT BE FOUND.)
CAS: 67-63-0
RTECS #: NT8050000
Fraction by Wt: PER N F
Other REC Limits: N/A DETERMINED
OSHA PER: 400 PPM/500 STEL
ACGIH TLV: 400 PPM/500 STEL; 9102
Hazards Identification

Routes of Entry: Inhalation:YES  Skin:YES  Ingestion:YES
Reports of Carcinogenicity:NTP:NO  IARC:NO  OSHA:NO
Health Hazards Acute and Chronic:INHALATION-IRRITATION OF NOSE & THROAT. EYES-IRRITATION, CONEAL BURNS. PROLONGED EXPOSURE TO HIGH CONCENTRATIONS MAY CAUSE SEVERE OR FATAL CNS DEPRESSION.
Explanation of Carcinogenicity:NOT CARCINOGENIC.
Effects of Overexposure:INHALATION-HIGHER CONCENTRATIONS MAY CAUSE HEADACHE, VOMITING, COMA. EVEN HIGHER CONCENTRATIONS MAY CAUSE COMA OR DEATH. SKIN-DRYNESS, POSSIBLE DERMATITIS. INGESTION-LARGE AMOUNTS CAUSES HEADACHE, NAUSEA, VOMITING, STOMACH CRAMPS, UNCONSCIOUSNESS OR DEATH.
Medical Cond Aggravated by Exposure:PRE-EXISTING SKIN DISORDERS. EYE PROBLEMS, OR IMPAIRED RESPIRATORY FUNCTION MAY BE SUSCEPTIBLE.

First Aid Measures

First Aid:INHALATION: REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF NEEDED, SEEK MEDICAL ATTENTION. EYES: FLUSH WITH WATER FOR 15 MINUTES, GET MEDICAL ATTENTION. SKIN: WASH AREA WITH SOAP & WATER. IF IRRITATION PERSISTS, SEEK MEDICAL ATTENTION. INGESTION: INDUCE VOMITING BY GIVING WATER. PREVENT ASPIRATION, GET IMMEDIATE MEDICAL ATTENTION.

Fire Fighting Measures

Flash Point Method: TCC
Flash Point: 53.0°F, 11.7°C
Lower Limit: 2.0
Upper Limit: 12.7
Extinguishing Media: WATER SPRAY, DRY CHEMICAL, CARBON DIOXIDE, ALCOHOL FOAM; DO NOT USE DIRECT WATER SPRAY.
Fire Fighting Procedures: FIREFIGHTERS SHOULD WEAR SELF-CONTAINED BREATHING APPARATUS & FULL PROTECTIVE CLOTHING. USE WATER SPRAY TO COOL NEARBY CONTAINERS & STRUCTURES THAT ARE EXPOSED.
Unusual Fire/Explosion Hazard: EXTINGUISH ALL NEARBY SOURCES OF IGNITION BECAUSE VAPORS MAY BE MOVED BY AIR CURRENTS TO IGNITION SOURCES DISTANT FROM THE HANDLING POINT.

Accidental Release Measures

Spill Release Procedures: EXTINGUISH ALL IGNITION SOURCES. MAKE SURE ALL HANDLING EQUIPMENT IS ELECTRICALLY GROUNDED. FOR SMALL SPILLS MOP UP & PLACE IN D.O.T. APPROVED CONTAINERS.

Handling and Storage

Handling and Storage Precautions: KEEP AWAY FROM HEAT, SPARKS & OPEN FLAMES. STORE IN COOL, DRY, WELL-VENTILATED PLACE AWAY FROM INCOMPATIBLE MATERIALS. VENT CONTAINERS FREQUENTLY.
Other Precautions: MORE OFTEN IN WARM WEATHER, USE ONLY ON NON-SPARKING TOOLS AND ELECTRICALLY GROUNDED EQUIPMENT WHEN HANDLING THIS PRODUCT. DO NOT USE PRESSURE TO EMPTY CONTAINERS. EMPTY CONTAINERS CAN HAVE RESIDUES, CASES & MISTS.

Exposure Controls/Personal Protection

Respiratory Protection: BASED UPON CONTAMINATION LEVELS IN THE WORK PLACE. FOR EXAMPLE: HALF MASK AIR-PURIFYING CARTRIDGE RESPIRATORS


5/13/2004
OR SUPPLIED AIR RESPIRATORS.
Ventilation: LOCAL—MECHANICAL EXHAUST.
Protective Gloves: RUBBER GLOVES.
Eye Protection: SAFETY GOGGLES.
Other Protective Equipment: RUBBER APRON, RUBBER BOOTS, IMPERVIOUS CLOTHING.
Work Hygienic Practices: EYE WASH FOUNTAIN, QUICK DRENCH SHOWER.
Supplemental Safety and Health
AN MSDS WAS REQUESTED. CHEM COMMODITIES INFORMED US 12OCT94 THAT THEY HAD SUPPLIED VAN WASERS & ROGERS MATERIAL TO DFSC. MSDS COPIED FOR ANOTHER VWR WHICH HAD BEEN SUPPLIED BY CHEM COMMODITIES. -- MATERIAL PER SPEC IS "ISOPROPYL ALCOHOL, N.F." FORMULATION COULD NOT BE FOUND. FORMULA IS THOUGHT TO BE 70%/30% WATER.

---------------------------------- Physical/Chemical Properties ----------------------------------

HCC: F2
NRC/State Lic Num: NONE
Boiling Pt: B.P. Text: 181°F, 83°C
Melt/Freeze Pt: M.P/F.P Text: -127°F, -88°C
Vapor Press: 3.5
Vapor Density: 2.07
Spec Gravity: 0.79
Evaporation Rate & Reference: 3.0 (BUTYL ACETATE = 1)
Solubility in Water: 100%
Appearance and Odor: MEDICINAL ALCOHOLIC ODOR.

---------------------------------- Stability and Reactivity Data ----------------------------------

Stability Indicator/Materials to Avoid: YES
STRONG OXIDIZERS, ALUMINUM, ACETALDEHYDE, CHLORINE, ETHYLENE OXIDE, HYPOCHLOROUS ACID, ALDEHYDES.
Stability Condition to Avoid: HEAT, SPARKS AND OPEN FLAMES.
Hazardous Decomposition Products: MAY LIBERATE CARBON MONOXIDE AND CARBON DIOXIDE.

---------------------------------- Disposal Considerations ----------------------------------

Waste Disposal Methods: CONSULT APPROPRIATE FEDERAL, STATE AND LOCAL REGULATORY AGENCIES TO ASCERTAIN PROPER DISPOSAL PROCEDURES.

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