Appendix A
Material Safety Data Sheets (MSDSs) for Certain Coatings and Inks
MSDSs for Hydro-Aire Primer and Topcoat
SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME : MIL-P-7962D YELLOW
IDENTIFICATION NUMBER: PT-562
PRODUCT USE/CLASS : YELLOW CHROMATE PRIMER
DATE PRINTED: 08/02/01

SUPPLIER:
PRODUCTS/TECHNIQUES, INC.
3271 S. RIVERSIDE AVE.
RIALTO, CA. 92376
P.O. BOX 760
BLOOMINGTON, CA. 92316
1-909-877-3951 8 am-4:30 pm

AFTER HOURS EMERGENCY PHONE: 1-800-424-9300 CHEMTREC

PREPARER: B. BODEN, PHONE: 909 877-3951, PREPARE DATE: 03/30/99

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM  CHEMICAL NAME  CAS NUMBER  WT/WT %  EQUAL TO
1  ALKYD RESIN  PROPRIETARY  18.3%
2  MAGNESIUM SILICATE HYDRATE  14807-96-6  11.6%
3  ZINC CHROMATE PIGMENT (SEE SEC. 3)  11103-86-9  11.4%
4  TOLUENE  108-88-3  11.4%
5  METHYL ISOBUTYL KETONE M.I.B.K.  108-10-1  7.0%
6  ALIPHATIC PETROLEUM DISTILLATES  64742-89-8  6.7%
7  XYLENE  1330-20-7  5.9%
8  CELLULOSE NITRATE  9004-70-0  5.7%
9  N-BUTYL ALCOHOL  71-36-3  5.6%
10  ETHYL ACETATE  141-78-6  5.6%
11  ISOPROPANOL I.P.A.  67-63-0  5.6%
12  ISOBUTANOL SOLVENT  78-83-1  4.6%
13  GRINDING ADDITIVE  PROPRIETARY  0.2%
14  PAINT ADDITIVE  NON HAZARDOUS  0.2%
15  METHYL ETHYL KETOXIME  96-29-7  0.2%

EXPOSURE LIMITS

ITEM TLV-TWA TLV-STEL PEL-TWA PEL-CEILING mmHg @ 20C MOLE WT.
01 N/A N/A N/A N/A N.E. N.E.
02 2 mg/m3 N/AV 2 mg/m3 N/AV N.E. N.E.
03 0.05 mg/m3 N/AV 0.10 mg/m3 N/A N.E. N.E.
04 50 PPM SKIN 150 PPM SKIN 100 PPM 150 PPM 24 92

(Continued on Page 2)
SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>ITEM</th>
<th>TLV-TWA</th>
<th>TLV-STEL</th>
<th>PEL-TWA</th>
<th>OSHA</th>
<th>COMPANY</th>
</tr>
</thead>
<tbody>
<tr>
<td>05</td>
<td>50 PPM</td>
<td>75 PPM</td>
<td>50 PPM</td>
<td>N/AV</td>
<td>15</td>
</tr>
<tr>
<td>06</td>
<td>300 PPM</td>
<td>400 PPM</td>
<td>300 PPM</td>
<td>N/AV</td>
<td>10.2</td>
</tr>
<tr>
<td>07</td>
<td>100 PPM</td>
<td>150 PPM</td>
<td>100 PPM</td>
<td>290 (10 MIN)</td>
<td>6.6</td>
</tr>
<tr>
<td>08</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>09</td>
<td>50 PPM SKIN</td>
<td>N/AV</td>
<td>50 PPM SKIN</td>
<td>50 PPM</td>
<td>4.4</td>
</tr>
<tr>
<td>10</td>
<td>400 PPM</td>
<td>N/AV</td>
<td>400 PPM</td>
<td>N/AV</td>
<td>76</td>
</tr>
<tr>
<td>11</td>
<td>400 PPM</td>
<td>500 PPM</td>
<td>400 PPM</td>
<td>800 PPM</td>
<td>37</td>
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<td>12</td>
<td>50 PPM</td>
<td>N/AV</td>
<td>50 PPM</td>
<td>N/AV</td>
<td>8.8</td>
</tr>
<tr>
<td>13</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>14</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td>N.E.</td>
</tr>
<tr>
<td>15</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
</tbody>
</table>

(See Section 16 for abbreviation legend)

SECTION 3 - HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***: NOTICE: REPORTS HAVE ASSOCIATED REPEATED AND PROLONGED OCCUPATIONAL OVEREXPOSURE TO SOLVENTS WITH PERMANENT BRAIN AND NERVOUS SYSTEM DAMAGE. INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING AND INHALING THE CONTENTS MAY BE HARMFUL OR FATAL.

NOTICE: THIS PRODUCT IS SOLD TO YOU AS THE SOLE USER. THIS PRODUCT IS SOLD AS AN "INDUSTRIAL PRODUCT ONLY". THIS PRODUCT IS NOT INTENDED NOR IS IT CLASSIFIED AS A CONSUMER PRODUCT. THIS PRODUCT IS NOT TO BE USED BY THE GENERAL PUBLIC.

NOTE: ALL PERCENT BY WEIGHTS AND VOC'S ARE APPROXIMATE AND MAY VARY SLIGHTLY FROM BATCH TO BATCH, AND DUE TO SOLVENT EVAPORATION, AFTER EACH USE. THE VOC'S ARE "AS PACKAGED MATERIAL".

IF THIS PRODUCT IS IN AN AEROSOL CAN, THE PERCENT OF VOC BY WEIGHT, AS DEFINED BY THE CALIF. AIR RESOURCES BOARD, IS LISTED BELOW. IF THE PRODUCT IS IN A BULK CONTAINER, THE VOC's IN GRAMS PER LITTER OR LBS PER GALLON ARE LISTED IN SECTION 16.

PERCENT VOC BY WEIGHT: _____________

CATEGORIES FOR AEROSOL PAINTS ONLY:
PIGMENTED PAINTS—EXACT MATCH FINISHES, INDUSTRIAL
UNPIGMENTED PAINTS—CLEAR COATINGS

ZINC CHROMATE PIGMENT FROM SEC. 2:
The Zinc Chromate pigment herein is 24% Chromium (CAS# 7440-47-3).

EFFECTS OF OVPEXPOSURE - EYE CONTACT: Direct contact with the liquid or exposure to vapors or mist may cause stinging, tearing, redness, swelling and eye damage.

(Continued on Page 3)
SECTION 3 - HAZARDS IDENTIFICATION

EFFECTS OF OVEREXPOSURE - SKIN CONTACT: May cause skin sensitization, allergic reaction, which becomes evident on reexposure to this material. Prolonged or repeated contact can result in defatting and drying of the skin which may result in skin irritation and dermatitis (rash).

EFFECTS OF OVEREXPOSURE - INHALATION: Headaches, dizziness, nausea, decreased blood pressure, changes in heart rate and cyanosis may result from over-exposure to vapor or skin exposure.

EFFECTS OF OVEREXPOSURE - INGESTION: This material may be harmful or fatal if swallowed.

EFFECTS OF OVEREXPOSURE - CHRONIC HAZARDS: No Information.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT  SKIN ABSORPTION  INHALATION  INGESTION  EYE CONTACT

SECTION 4 - FIRST AID MEASURES

FIRST AID - EYE CONTACT: Immediately move victim away from exposure and into fresh air. If irritation or redness develops, flush eyes with clean water and seek immediate medical attention. For direct contact, immediately hold eyelids apart and flush affected eye(s) with clean water for at least 20 minutes. Seek immediate medical attention.

FIRST AID - SKIN CONTACT: Wash with soap and water. Get medical attention if irritation develops or persists. Remove contaminated clothing. Wash skin with soap and water. Get medical attention.

FIRST AID - INHALATION: Rescuers should put on appropriate protective gear. Remove from area of exposure. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Keep victim warm. Get immediate medical attention.

FIRST AID - INGESTION: HAVE M.S.D.S. HAZARDOUS INGREDIENT SECTION (SECT. 2) READILY AVAILABLE FOR EMERGENCY PERSONNEL OR DOCTOR. Get medical attention immediately.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT: 24 F - ETHYL ACETATE (TAGLIABUE CLOSED CUP)
LOWER EXPLOSIVE LIMIT: 0.9 %  UPPER EXPLOSIVE LIMIT: 12.0 %

AUTOIGNITION TEMPERATURE: N/E

EXTINGUISHING MEDIA: ALCOHOL FOAM  CO2  DRY CHEMICAL  FOAM  WATER  FOG

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors can travel to a source of ignition and flash back. Flammable Liquid. Can release vapors that form

(Continued on Page 4)
SECTION 5 - FIRE FIGHTING MEASURES

Explosive mixtures at temperatures at or above the flashpoint. "Empty" containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner, or properly disposed of.

SPECIAL FIREFIGHTING PROCEDURES: Containers can build up pressure if exposed to heat (fire). As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved or equivalent) and full protective gear. Water runoff can cause environmental damage. Bke and collect water used to fight fire.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container. Avoid runoff into storm sewers and ditches which lead to waterways.

SECTION 7 - HANDLING AND STORAGE

"HANDLING: Wash thoroughly after handling.

"STORAGE: Keep away from heat, sparks and flame. Keep container closed when not in use. Store in a cool dry area at a temperature between 50 and 95 degrees F. Do not store outside in direct sunlight.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Good general ventilation should be sufficient to control airborne levels. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

RESPIRATORY PROTECTION: All individual company safety policies should be reviewed. If a company determines that threshold limit values and air quality contaminant levels have not been exceeded, then that company should set it's own policies regarding the use of respirators. Always follow all local, state, and federal laws and regulations regarding the use of respirators. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure.
SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

If supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use. Wear a MSHA/NIOSH approved (or equivalent) full-facepiece airline respirator in the positive pressure mode with emergency escape provisions.

SKIN PROTECTION: Where contact is likely, wear chemical resistant gloves, such as neoprene or solvent resistant nitrile. To prevent repeated or prolonged skin contact, wear impervious clothing such as a chemical suit, rubber boots, and/or chemical safety goggles plus a face shield if such should be necessary. If the equipment to be worn is not available or the type of equipment for a specific job is not known, consult a reputable safety equipment supply company. Use chemical splash goggles and face shield (ANSI Z87.1 or approved equivalent).

EYE PROTECTION: Wear safety glasses with side shields (or goggles) and a face shield.

OTHER PROTECTIVE EQUIPMENT: Where splashing is possible, full chemically resistant protective clothing (e.g. acid suit) and boots are required.

HYGIENIC PRACTICES: Wash hands before eating. Remove contaminated clothing and wash before reuse. Use only in a well ventilated area. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid prolonged or repeated contact with skin. Avoid breathing vapors from heated material. Avoid contact with eyes, skin, and clothing.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOILING RANGE</td>
<td>168 - 300 F</td>
</tr>
<tr>
<td>ODOR</td>
<td>SOLVENT LIKE</td>
</tr>
<tr>
<td>APPEARANCE</td>
<td>YELLOW LIQUID</td>
</tr>
<tr>
<td>SOLUBILITY IN H2O</td>
<td>NONE</td>
</tr>
<tr>
<td>FREEZE POINT</td>
<td>N/E</td>
</tr>
<tr>
<td>VAPOR PRESSURE</td>
<td>N/E</td>
</tr>
<tr>
<td>PHYSICAL STATE</td>
<td>LIQUID</td>
</tr>
<tr>
<td>VAPOR DENSITY</td>
<td>Is heavier than air</td>
</tr>
<tr>
<td>ODOR THRESHOLD</td>
<td>N/E</td>
</tr>
<tr>
<td>EVAPORATION RATE</td>
<td>Is slower than Butyl Acetate</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY</td>
<td>1.1105</td>
</tr>
<tr>
<td>pH @ 0.0 %</td>
<td>N/E</td>
</tr>
<tr>
<td>VISCOSITY</td>
<td></td>
</tr>
</tbody>
</table>

(See Section 16 for abbreviation legend)

SECTION 10 - STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Avoid all possible sources of ignition.

INCOMPATIBILITY: (Materials to avoid): strong acids and bases, oxidizers, and selected amines.

(Continued on Page 5)
SECTION 10 - STABILITY AND REACTIVITY

HAZARDOUS DECOMPOSITION PRODUCTS: CO and CO2. Other unknown hazardous products are possible.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 - TOXICOLOGICAL PROPERTIES

No product or component toxicological information is available.

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: No Information.

SECTION 13 - DISPOSAL CONSIDERATIONS

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

SECTION 14 - TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: PAINT
DOT TECHNICAL NAME: N/A
DOT HAZARD CLASS: 3, FLAMMABLE LIQUID HAZARD SUBCLASS: N/A
DOT UN/NA NUMBER: UN 1263 PACKING GROUP: II RESP. GUIDE PAGE: 127

SECTION 15 - REGULATORY INFORMATION

THE FOLLOWING COMPONENTS ARE NOT SUBJECT TO REPORTING IN SECTION 2:

------------------ CHEMICAL NAME ------------------ CAS NUMBER WT/WT %
No non-hazardous components exist

U.S. FEDERAL REGULATIONS: AS FOLLOWS -

(Continued on Page 7)
SECTION 15 - REGULATORY INFORMATION

ERCLA - SARA HAZARD CATEGORY:
This product has been reviewed according to the EPA 'Hazard Categories' promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories:
IMMEDIATE HEALTH HAZARD  CHRONIC HEALTH HAZARD  FIRE HAZARD

SARA SECTION 313:
This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NUMBER</th>
<th>WT/WT %</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZINC CHROMATE PIGMENT (SEE SEC. 3)</td>
<td>11103-86-9</td>
<td>11.4</td>
</tr>
<tr>
<td>TOLUENE</td>
<td>108-88-3</td>
<td>11.4</td>
</tr>
<tr>
<td>METHYL ISOBUTYL KETONE M.I.B.K.</td>
<td>108-10-1</td>
<td>7.6</td>
</tr>
<tr>
<td>ALIPHATIC PETROLEUM DISTILLATES</td>
<td>64742-89-8</td>
<td>6.7</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>5.9</td>
</tr>
<tr>
<td>N-BUTYL ALCOHOL</td>
<td>71-36-3</td>
<td>5.6</td>
</tr>
<tr>
<td>ISOPROPANOL I.P.A.</td>
<td>67-63-0</td>
<td>5.6</td>
</tr>
</tbody>
</table>

TOXIC SUBSTANCES CONTROL ACT:
The chemical substances in this product are on the TSCA Section 8 Inventory.

This product contains the following chemical substances subject to the reporting requirements of TSCA 12(b) if exported from the United States:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>No information is available.</td>
<td></td>
</tr>
</tbody>
</table>

U.S. STATE REGULATIONS: AS FOLLOWS -

NEW JERSEY RIGHT-TO-KNOW:
The following materials are non-hazardous, but are among the top five components in this product:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>No non-hazardous materials are among the top five ingredients.</td>
<td></td>
</tr>
</tbody>
</table>

PENNSYLVANIA RIGHT-TO-KNOW:
The following non-hazardous ingredients are present in the product at greater than 3%:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>No non-hazardous ingredients are present at greater than 3%.</td>
<td></td>
</tr>
</tbody>
</table>

(Continued on Page 8)
SECTION 15 - REGULATORY INFORMATION

CALIFORNIA PROPOSITION 65:
WARNING: The chemicals noted below and contained in this product, are known to the state of California to cause cancer and birth defects or other reproductive harm:

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>ZINC CHROMATE PIGMENT (SEE SEC. 3)</td>
<td>11103-86-9</td>
</tr>
<tr>
<td>TOluene</td>
<td>108-88-3</td>
</tr>
</tbody>
</table>

INTERNATIONAL REGULATIONS: AS FOLLOWS -

CANADIAN WHMIS: This MSDS has been prepared in compliance with Controlled Product Regulations except for use of the 3 headings.

CANADIAN WHMIS CLASS: No information available.

SECTION 16 - OTHER INFORMATION

HMIS RATINGS - HEALTH: 2  FLAMMABILITY: 3  REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: 01/25/99

REASON FOR REVISION: NEW COMPUTER SYSTEM

VOLATILE ORGANIC COMPOUNDS (VOCs): 4.86 lbs/gal, 583 grams/ltr

XGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

To comply with the requirements of the safe drinking water and toxic enforcement act of 1986 (Proposition 65) we are required to WARN YOU that this material is known to the State of California to cause cancer, birth defects or other reproductive harm. Safe handling is absolutely mandatory. Please review safe handling procedures with your supervisor before working with this material.

The information in this document is believed to be correct as of the date printed. HOWEVER, NO WARRANTY OF MERCHANTABILITY, FITNESS FOR ANY PARTICULAR PURPOSE, OR ANY OTHER WARRANTY IS EXPRESSED OR IS TO BE IMPLIED REGARDING THE ACCURACY OR COMPLETENESS OF THIS INFORMATION, THE RESULTS TO BE OBTAINED FROM THE USE OF THIS INFORMATION OR THE PRODUCT, THE SAFETY OF THIS PRODUCT, OR THE HAZARDS RELATED TO ITS USE. This information and product are furnished on the condition that the person receiving them shall make his own determination as to the suitability of the product for his particular purpose and on the condition that he assumes the risk of his use thereof.

ND OF MSDS>
MSDS for Metrex Coating
**International Paint (USA) Inc**

**MATERIAL SAFETY DATA SHEET**

May be used to comply with OSHA's Hazard Communication Standard, 29CFR 1910.1200. (THIS MSDS SUPERSEDES ANY PREVIOUS ISSUES)

PLEASE DIRECT TO THE APPROPRIATE DEPARTMENT IMMEDIATELY.

**SECTION ONE: PRODUCT IDENTIFICATION**

**PROD. NO:** CLC935

**PROD. NAME:** ITALIAN CARIBBEAN BLUE ACRYLIC ENAMEL N/A

**SECTION TWO: HAZARDOUS INGREDIENTS**

<table>
<thead>
<tr>
<th>% WT.</th>
<th>OCCUPATIONAL EXPOSURE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>TLV</td>
</tr>
<tr>
<td>0-1</td>
<td>5.00</td>
</tr>
<tr>
<td>1-5</td>
<td>100.00</td>
</tr>
<tr>
<td>45-50</td>
<td>100.00</td>
</tr>
<tr>
<td>0-1</td>
<td>0.05</td>
</tr>
</tbody>
</table>

**N/A = NOT AVAILABLE**

**SECTION THREE: PHYSICAL DATA**

**BOILING RANGE** 303-350 Deg. F

**EVAPORATION RATE:** FASTER THAN WATER

**VAPOR DENSITY:** HEAVIER THAN AIR

**HEAVY VAPOR:** 61

**LIGHTER THAN AIR:** 7.7

**SECTION FOUR: FIRE AND EXPLOSION HAZARD DATA**

**FLAMMABILITY CLASSIFICATION:** OSHA: COMBUSTIBLE, CLASS II

**FLASH POINT:** 108 Deg. F

**SYMBOLS:**
- DOT: D.O.T.ElementsBy Percent by Volume
- WATERFOG: WATERFOG
- OTHER:

**UNUSUAL FIRE AND EXPLOSION HAZARDS:**

CONTAINS FLAMMABLE SOLVENT. DO NOT USE IN AREAS WHERE SPARK OR OPEN FLARE ARE PRESENT.

**SPECIAL FIRE FIGHTING PROCEDURES:**

WATER MAY BE USED TO CTRL UNOPENED CONTAINERS, BUT MUST NOT BE USED AS AN EXTINGUISHING MEDIA. TAKE CARE TO PREVENT SPREAD OF BURNING LIQUID WITH WATER. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

**V.O.C.**

400 pL/liter
SECTION FIVE: HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE
- IRRITATION TO EYES, EARS, NOSE AND THROAT, AND BLURRED VISION.
- HARMFUL IF ABSORBED THROUGH SKIN.
- INHALATION - IRRITATION OF RESPIRATORY SYSTEM, HEADACHE AND DIZZINESS AND UNCONSCIOUSNESS.
- INGESTION - DIGESTIVE TRACT IRRITATION, NAUSEA, VOMITING, DIARRHEA.

MEDICAL CONDITIONS PRONE TO AGgravATION BY EXPOSURE
- ACUTE RESPIRATORY CONDITIONS.

INGREDIENT LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN: NTP NO IARC MONOGRAPHS NO OSHA NC

EMERGENCY AND FIRST AID PROCEDURE
- EYES - FLUSH IMMEDIATELY WITH ABUNDANT QUANTITIES OF WATER FOR 15 MINUTES. GET MEDICAL ATTENTION IMMEDIATELY.
- SKIN - WASH WITH ADEQUATE AMOUNTS OF SOAP AND WATER. WASH SKIN WITH FRESH WATeR BEFORE REUSE.
- INHALATION - REMOVE TO FRESH AIR. GIVE ARTIFICIAL RESPIRATION IF NECESSARY. GET MEDICAL ATTENTION IMMEDIATELY TO DETERMINE WHETHER OR NOT TO INDUCE VOMITING.

SECTION SIX: REACTIVITY DATA

STABILITY: UNSTABLE
Hazardous Decomposition Products: GC, LC, VC, MILITARY HYDROCARBON FRAGMENTS.

CONDITIONS TO AVOID
- STORE AWAY FROM DIRECT HEAT, FLAME OR SPARK.

INCOMPATIBILITY MATERIALS TO AVOID
- OXIDIZING AGENTS.

SECTION SEVEN: SPILL AND LEAK PROCEDURE

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: REMOVE ALL SOURCES OF IGNITION. AVOID INHALATION OF VAPORS. VENTILATE AREA. CLEAN UP WITH ABSORBENT MATERIALS.

WASTE DISPOSAL METHOD: DISPOSE IN ACCORDANCE WITH LOCAL, STATE, AND FEDERAL REGULATIONS. DO NOT INCINERATE OPENED CONTAINERS.

SECTION EIGHT: SAFE HANDLING AND USE INFORMATION

RESPIRATORY PROTECTION: IN OUTDOOR OR OPEN AREAS WITH UNRESTRICTED VENTILATION, USE A NIOSH APPROVED FILTER RESPIRATOR TO REMOVE SORID AIRBORNE PARTICLES OF OVERSPRAY DURING SPRAY APPLICATION. IN RESTRICTED VENTILATION AREAS, USE A NIOSH APPROVED RESPIRATOR IN ACCORDANCE WITH 29 CFR 1910.134 TO REMOVE A COMBINATION OF PARTICULATES AND VAPORS. VENTILATION: PROVIDE SUFFICIENT VENTILATION, IN VOLUME AND PATTERN, TO KEEP WORK AREA WELDING OR FLAME CUTTING ON SURFACES COATED WITH THIS PRODUCT.

PROTECTIVE GLOVES: WEAR CHEMICAL RESISTANT GLOVES.

OTHER PROTECTIVE EQUIPMENT: WEAR APPROPRIATE IMPERVIOUS PROTECTIVE CLOTHING TO PREVENT SKIN CONTACT.

SECTION NINE: SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING
- STORE IN BULK IF POSSIBLE AND PROTECTED FROM STORAGE OF LIQUIDS WITH IFFA CLASS GIVeN BY OSHA CLASS I IN SECTION 4.
- AVOID BREATHE DUST OF SPILLS FROM SANDING OR BLOWING SURFACES COATED WITH THIS PRODUCT.
- RECOMMEND GROUNDING AND BONDING OF CONTAINERS WHEN TRANSFERRING LIQUIDS AND POWDERS TO AVOID STATIC CHARGE BUILD UP.

OTHER PRECAUTIONS
- AVOID OVEREXPOSURE TO ETHYLENE GLYCOL ETHERS/ACETATES.
- OUTSIDE USE OF LEAD, PENCIL LEAD, CONTAINS LEAD STANDARD FOR FULL DISCUSSION OF HEALTH EFFECTS.
MSDS for Oakwood Stain
MATERIAL SAFETY DATA SHEET

Alternative Materials Technology, Inc.
311 Oterson Dr., Ste. 60
Chico, CA 95928
Phone (530) 894-3588
Fax (530) 896-0657
Date Prepared
9/18/2001
Supersedes: All prior dates

24 HOUR EMERGENCY: 1-800-255-3624

SECTION I - PRODUCT IDENTIFICATION

PRODUCT NAME: LOW VOC BRANDY STAIN
PRODUCT CODE: 08WS08-017
LF#: KB58-99B

SECTION II - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No.</th>
<th>Percent</th>
<th>OSHA PEL</th>
<th>ACGIH</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aliphatic Hydrocarbons</td>
<td>8052-41-3</td>
<td>&lt;5</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acetone</td>
<td>67-64-1</td>
<td>30-40</td>
<td>150 ppm</td>
<td>50 ppm</td>
<td></td>
</tr>
<tr>
<td>Aromatic Solvents</td>
<td>184-18-5</td>
<td>10-15</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>6</td>
</tr>
</tbody>
</table>

* INDICATES CHEMICAL(S) SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III AND OF 40 CFR 372

SECTION II-A - VOLATILE ORGANIC CONTENT (VOC)

<table>
<thead>
<tr>
<th>Compliance</th>
<th></th>
<th></th>
<th></th>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>VOC Grams/Liter Minus Exempt</td>
<td>154.97</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>VOC Pounds/Gallon Minus Exempt</td>
<td>1.29</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL VOC CONTENT (EMISSIONS)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.64</td>
</tr>
<tr>
<td>VOC Grams/Liter</td>
<td>86.12</td>
<td></td>
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<tr>
<td>VOC Pounds/Gallon</td>
<td>0.74</td>
<td></td>
<td></td>
<td></td>
<td>0.18</td>
</tr>
</tbody>
</table>

Page 1 of 4
SECTION III - PHYSICAL DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point</td>
<td>116 °F</td>
</tr>
<tr>
<td>Vapor Pressure (mm Hg)</td>
<td>15</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>(Apr+1): less than 1</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Not Soluble</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.917 (H2O=1)</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>(Butyl Acetate =1): Less than 1</td>
</tr>
<tr>
<td>Appearance and Odor</td>
<td>REDDISH BROWN, SOLVENT ODOUR</td>
</tr>
<tr>
<td>Density: Pounds / Gallon</td>
<td>7.8 lbs/Gallon</td>
</tr>
<tr>
<td>Percent Non-Volatile</td>
<td>53.2 %</td>
</tr>
<tr>
<td>Pounds Solids / Gallon</td>
<td>4.07</td>
</tr>
<tr>
<td>% WI Emissions</td>
<td>9.6%</td>
</tr>
</tbody>
</table>

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point (Closed Cup)</td>
<td>-1°F</td>
</tr>
<tr>
<td>Lower Explosive Limit</td>
<td>1.0%</td>
</tr>
<tr>
<td>Upper Explosive Limit</td>
<td></td>
</tr>
</tbody>
</table>

Extinguishing Media: FOAM, DRY CHEMICAL, CARBON DIOXIDE OR ANY CLASS "B" EXTINGUISHING AGENT. WATER MAY BE UNSUITABLE AS AN EXTINGUISHING MEDIUM, BUT HELPFUL IN KEEPING ADJACENT CONTAINERS COOL.

SPECIAL FIREFIGHTING PROCEDURES: FULL PROTECTIVE EQUIPMENT INCLUDING SELF CONTAINED BREATHING APPARATUS. WATER MAY BE USED TO COOL CONTAINERS TO PREVENT PRESSURE BUIDLUP, POSSIBLE AUTOIGNITION OR EXPLOSION DUE TO EXTREME HEAT.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors may form an explosive mixture in air. Closed containers may rupture when exposed to extreme heat. Handle or discard materials such as rags in accordance with all local, state, and federal regulations.

IF ACETONE IS LISTED IN SECTION II,

EXTREMELY VOLATILE AND FLAMMABLE. MUST BE USED IN AN EXTREMELY WELL VENTILATED AREA. RECOMMEND THAT ALL EQUIPMENT LIGHTING, FIXTURES, AND OTHER ELECTRICAL APPARATUS BE EXPLOSION PROOF.

AMT DOES NOT WARRANT AND WARNS STRONGLY AGAINST USING THIS PRODUCT IF SPECIFIED CONDITIONS ARE NOT MET. THESE STATEMENTS ARE MADE BECAUSE OF THE EXTREME VOLATILITY OF THE ACETONE AND OTHER FLAMMABLE SOLVENTS CONTAINED IN THIS PRODUCT.

VAPORS MAY TRAVEL ALONG GROUND OR BE MOVED BY VENTILATION TO SOURCES OF IGNITION.

CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT. KEEP WORK AREA FREE FROM SOURCES OF IGNITION.

RESIDUE IN EMPTIED CONTAINERS CAN EXPLODE OR IGNITE EXPLOSIVELY. ALL 5-GALLON FAILS AND LARGER METAL CONTAINERS MUST BE GROUND AND/OR BONDED DURING LIQUID TRANSFER.
KB59-09B
SECTION V - HEALTH HAZARD DATA

Health Hazards and Effects of Overexposure:

SKIN: This material may cause dermatitis. Prolonged or repeated contact may cause dermatitis.

INHALATION: Excessive exposure to vapors or spray mists can result in headache, dizziness, incoordination, nausea and loss of consciousness. Some reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage.

EYES: This material may be an eye irritant.

FIRST AID:

EYES: Immediately flush eyes thoroughly with water and continue washing for 15 minutes. Obtain medical attention.

SKIN: Remove contaminated clothing. Wash with soap and water immediately.

INHALATION: Remove to fresh air immediately. If coughing, difficult breathing or any other respiratory symptoms develop, seek medical attention at once.

INGESTION: If ingested DO NOT induce vomiting. Keep person warm, quiet, and get medical attention immediately. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal.

PRIMARY ROUTES OF ENTRY: Inhalation and skin contact.

CANCER: This product does not contain 0.1% or more of any substance which is listed as a carcinogen by IARC, NTP or OSHA.

SECTION VI - REACTIVITY DATA

STABILITY: Stable

INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

CONDITIONS TO AVOID: Warm storage and ignition sources.

HAZARDOUS DECOMPOSITION PRODUCTS: INCOMPLETE COMBUSTION CAN YIELD CARBON MONOXIDE AND TOXIC VAPORS.

SECTION VII - SPILL OR LEAK PROCEDURES

Steps to be taken in case material is Released or Spilled: Remove all sources of ignition. Ventilate area. Absorb spill with an absorbent material such as sawdust, vermiculite, or sand and place material into a closed container.

If large spill, take to prevent the material from entering water systems or sewers. Wear protective equipment during cleanup.

Waste Disposal Methods: This material has been tested and found to have a flash point below 140 degrees Fahrenheit. If discarded, this material and containers should be treated as hazardous wastes based on the characteristics of ignitability as defined under federal RCRA regulations (40 CFR 261). Disposal of this material or its container requires compliance with applicable labeling, packaging, and record keeping standards. Extreme care should be taken to ensure that it is disposed of only in a facility permitted for disposal of hazardous waste. For further information, contact your state or local waste agency or the United States Environmental Protection Agency's RCRA hotline (1-800-424-9346 or 202-382-3000)
SECTION VII - CONTROL MEASURES
Respiratory Protection: A cartridge type respirator must be worn to prevent the inhalation of vapors or spray mists when the TLV or PER is exceeded.

Ventilation: General ventilation is required during normal use. Local ventilation may be required during certain operations to keep exposure level below the limits listed in Section II of this data sheet.

Protective Gloves: Chemical-resistant nitrile, neoprene or rubber gloves required.

Eye Protection: Wear face shield or chemical goggles.

SECTION IX - SPECIAL PRECAUTIONS AND ADDITIONAL INFORMATION

Precautions to be taken in handling and Storing: Avoid prolonged or repeated inhalation of heated vapors or spray mists. Keep away from heat or open flame. Avoid prolonged or repeated skin contact.

Other Precautions: Handle all bags and other materials and/or waste soaked with this product in accordance with the recommendations listed in Section IV of this MSDS.

SARA Title III, Section 313: This product contains chemicals subject to the reporting requirement of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 and 40 CFR 372.

ANY SUCH CHEMICALS ARE SHOWN IN SECTION II OF THIS MSDS AND ARE DESIGNATED WITH AN **

SECTION X - DISCLAIMER

Gloss Value: All gloss values listed are approximate. Each product is drawn down on a Leneta card for gloss measurement. Gloss value as sprayed may vary +10 gloss units.

DISCLAIMER

TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION CONTAINED HEREIN IS ACCURATE, OBTAINED FROM SOURCES BELIEVED BY ALTERNATIVE MATERIALS TECHNOLOGY TO BE ACCURATE. HOWEVER, THE INFORMATION IS PROVIDED WITHOUT REPRESENTATION OR WARRANTY.

EXPRESSION OR IMPLIED REGARDING ITS ACCURACY OR CORRECTNESS.

K858-999
MSDSs for Holmes Coatings
MATERIAL SAFETY DATA SHEET

Primer

Section 1 - Product Information

Manufacturer: Akzo Nobel Coatings Inc.
5556 Spalding Drive
Norcross, GA 30092
USA

Canadian Supplier: Akzo Nobel Coatings Ltd.
110 Woodbine Downs Blvd.
Unit #4 Etobicoke, Ontario
Canada M9W 5S6

Emergency Telephone: For US transportation emergencies call Chemtrec: 800-424-9300
For Canadian transportation emergencies call - Canutec: 613-966-6666

Information: 770-246-8454 (USA 7:00am – 4:00pm Eastern Time) Product Use: primer

Item Numbers (US & Canadian):
Autosurfacer LV Sealer 002012
Basefix 790 006052/006853
AutoCoat LV Epoxy 001062/001063/001064
Washprimer CR 001040/001042

Plastoflex Primer 001009
Primer PO 006003/006005
Autosurfacer LV 2.1 002081
Washprimer EM CF 001045/001046

Emergency Overview

Signs of Overexposure: Nausea, cough, dizziness, weakness, headache, chest pain, lack of coordination, shortness of breath, dermatitis, redness and/or pain in eyes.

Emergency First Aid: Move to fresh, remove contaminated clothing, wash effected skin with soap and water, do not use solvents or thinners; if product gets into eyes, remove contact lenses, flush with water for 15 minutes.

Handling: When handling wear an organic vapor cartridge respirator (NIOSH / OSHA), solvent resistant gloves and safety eye protection designed to guard against liquid splashes. Use approved bonding and grounding procedures when transferring to another container. Close all containers tightly after use. Do not eat, drink or smoke in work areas.

Clean-up: Eliminate sources of ignition. Dike to reduce extent of spill. Remove with inert absorbent (vermiculite, clay, Oil-Dry®, Kitty Litter, etc.) using non-sparking tools. Transfer to a grounded metal container, seal container. Dispose of as hazardous waste.

Material Appearance: White, Green, Gray or Yellow

Material physical appearance: Liquid

Other Precautions: Vapors are heavier than air and may travel along floors. Material has an offensive odor. Prolonged exposure may reduce the user's sensitivity to the odor, thus reducing the effectiveness of odor as a warning against exposure.

Fire Fighting: Flammable liquid, refer to Guide 127 of the North American Emergency Guide Book. Forms explosive mixture with air, vapors are heavier than air and may travel to a source of ignition and flash back.

NFPA Flammability: 1B and/or 2C

Akzo Nobel Coatings Inc. has no oversight with respect to the guidance practices or policies or manufacturing processes of other companies handling or using this material. The information given in this MSDS is only related to the product as shipped in its original condition as described in Section 2, "Hazardous Ingredients" and Section 9 "Physical and Chemical Properties".

These products are considered hazardous under the Federal OSHA Hazard Communication Standard

Section 2 - Hazardous Ingredients

<table>
<thead>
<tr>
<th>Hazardous Ingredient</th>
<th>% by weight</th>
<th>CAS No</th>
<th>Vapor Press</th>
<th>TLV</th>
<th>OSHA</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LC50 Inhal</th>
<th>LEL</th>
</tr>
</thead>
</table>

- 172 -
<table>
<thead>
<tr>
<th></th>
<th>5-10%</th>
<th>10-20%</th>
<th>20-30%</th>
<th>30-40%</th>
<th>40-50%</th>
<th>50-60%</th>
<th>60-70%</th>
<th>70-80%</th>
<th>80-90%</th>
<th>90-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Propylene Glycol</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td><strong>Methyl Ethyl Ketone</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Epoxy Resin</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Barium Sulfate</strong></td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
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<tr>
<td><strong>Ammonium Silica</strong></td>
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<td></td>
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<td></td>
<td></td>
<td></td>
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<td><strong>Quartz Crystal</strong></td>
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<td></td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Zinc Phosphate</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Washprimer CR contains:</strong></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Baythane 2314</strong></td>
<td>10.5%</td>
<td>15%</td>
<td>20%</td>
<td>25%</td>
<td>30%</td>
<td>35%</td>
<td>40%</td>
<td>45%</td>
<td>50%</td>
<td>55%</td>
</tr>
<tr>
<td><strong>Formaldehyde</strong></td>
<td>0.1%</td>
<td>0.25%</td>
<td>0.5%</td>
<td>0.75%</td>
<td>1%</td>
<td>1.5%</td>
<td>2%</td>
<td>2.5%</td>
<td>3%</td>
<td>3.5%</td>
</tr>
<tr>
<td><strong>Isopropanol</strong></td>
<td>40-70%</td>
<td>50-80%</td>
<td>60-90%</td>
<td>70-100%</td>
<td>80-120%</td>
<td>90-140%</td>
<td>100-160%</td>
<td>110-200%</td>
<td>120-300%</td>
<td>130-400%</td>
</tr>
<tr>
<td><strong>Zinc Chromate</strong></td>
<td>1.5%</td>
<td>2%</td>
<td>2.5%</td>
<td>3%</td>
<td>3.5%</td>
<td>4%</td>
<td>4.5%</td>
<td>5%</td>
<td>5.5%</td>
<td>6%</td>
</tr>
<tr>
<td><strong>Autosurfacer LV Sealer contains:</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Eximer-mixed solvents (SARA 313)</strong></td>
<td>3.1%</td>
<td>6.2%</td>
<td>10%</td>
<td>15%</td>
<td>20%</td>
<td>25%</td>
<td>30%</td>
<td>35%</td>
<td>40%</td>
<td>45%</td>
</tr>
<tr>
<td><strong>Talc</strong></td>
<td>6.1%</td>
<td>7.5%</td>
<td>9%</td>
<td>11%</td>
<td>13%</td>
<td>15%</td>
<td>17%</td>
<td>19%</td>
<td>21%</td>
<td>23%</td>
</tr>
<tr>
<td><strong>Calcium Carbonate</strong></td>
<td>14.9%</td>
<td>17.2%</td>
<td>20%</td>
<td>22.5%</td>
<td>25%</td>
<td>27.5%</td>
<td>30%</td>
<td>32.5%</td>
<td>35%</td>
<td>37.5%</td>
</tr>
<tr>
<td><strong>Titanium Dioxide</strong></td>
<td>12.3%</td>
<td>14.9%</td>
<td>17.5%</td>
<td>20.2%</td>
<td>22.8%</td>
<td>25.4%</td>
<td>28%</td>
<td>30.6%</td>
<td>33.2%</td>
<td>35.8%</td>
</tr>
<tr>
<td><strong>Methyl Amyl Ketone</strong></td>
<td>12.3%</td>
<td>15%</td>
<td>17.5%</td>
<td>20%</td>
<td>22.5%</td>
<td>25%</td>
<td>27.5%</td>
<td>30%</td>
<td>32.5%</td>
<td>35%</td>
</tr>
<tr>
<td><strong>Zinc Dichromate</strong></td>
<td>1.9%</td>
<td>2.5%</td>
<td>3%</td>
<td>3.5%</td>
<td>4%</td>
<td>4.5%</td>
<td>5%</td>
<td>5.5%</td>
<td>6%</td>
<td>6.5%</td>
</tr>
</tbody>
</table>

**Washprimer EM CF contains:**

- 173 -
AKZO NOBEL

MATERIAL SAFETY DATA SHEET
Primer

Section 1 - Product Information

Manufacturer: Akzo Nobel Coatings Inc.
5555 Spalding Drive
Narcoosse, GA 30092
USA

Emergency Telephone: For US transportation emergencies call - Chemtrec: 800-424-9300
For Canadian transportation emergencies call - Canutec: 613-996-6666

Information: 770-245-8454 (USA 7:00am – 4:00pm Eastern Time) Product Use: primer

Item Numbers (US & Canadian):
Autosurfacer LV Sealer 002012
Basafix 790 006052/006053
Autocote LV Epoxy 001062/001063/001064
Washprimer CR 001040/001042
Plastoflex Primer 001009
Primer PO 006002/006005
Autosurfacer LV 2.1 002081
Washprimer EM CF 001045/001046

Emergency Overview

Signs of Overexposure: Nausea, cough, dizziness, weakness, headache, chest pain, lack of coordination, shortness of breath, dermatitis, redness and/or pain in eyes.

Emergency First Aid: Move to fresh, remove contaminated clothing, wash affected skin with soap and water, do not use solvents or thinners; if product gets into eyes, remove contact lenses, flush with water for 15 minutes.

Handling: When handling wear an organic vapor cartridge respirator (NIOSH / OSHA), solvent resistant gloves and safety eye protection designed to guard against liquid splashes. Use approved bonding and grounding procedures when transferring to another container. Close all containers tightly after use. Do not eat, drink or smoke in work areas.

Clean-up: Eliminate sources of ignition. Dike to reduce extent of spill. Remove with inert absorbent (vermiculite, clay, Oil Dry®, Kitty Litter, etc.) using non-sparking tools. Transfer to a grounded metal container, seal container. Dispose of as hazardous waste.

Material Appearance: White, Green, Gray or Yellow

Material Physical Appearance: Liquid

Other Precautions: Vapors are heavier than air and may travel along floors. Material has an offensive odor. Prolonged exposure may reduce the user’s sensitivity to the odor, thus reducing the effectiveness of odor as a warning against exposure.

Fire Fighting: Flammable liquid, refer to Guide 127 of the North American Emergency Guide Book. Forms explosive mixture with air, vapors are heavier than air and may travel to a source of ignition and flash back.

NPPA Flammability: I B and/or IC.

Akzo Nobel Coatings Inc. has no oversight with respect to the guidance practices or policies or manufacturing processes of other companies handling or using this material. The information given in this MSDS is only related to the product as shipped in its original condition as described in Section 2, “Hazardous Ingredients” and Section 9 “Physical and Chemical Properties”.

Section 2 - Hazardous Ingredients

<table>
<thead>
<tr>
<th>Hazardous Ingredient</th>
<th>% by weight</th>
<th>CAS No.</th>
<th>Vapor Press</th>
<th>ACGIH TLV</th>
<th>OSHA REL</th>
<th>LD50 Oral</th>
<th>LD50 Dermal</th>
<th>LD50 Inhal</th>
<th>LEL</th>
</tr>
</thead>
</table>

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### Plastoflox contains:

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
<th>Formula</th>
<th>PPM</th>
<th>n. av.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,4-Trimethylbenzene (SARA 3/3)</td>
<td>3.2%</td>
<td>95%</td>
<td>17</td>
<td>25ppm</td>
</tr>
<tr>
<td>Aromatic Solvent</td>
<td>5.1%</td>
<td>95%</td>
<td>100ppm</td>
<td>n. av.</td>
</tr>
<tr>
<td>Ethenylbenzene (SARA 3/3)</td>
<td>2.8%</td>
<td>90%</td>
<td>7.1</td>
<td>100ppm</td>
</tr>
<tr>
<td>N-Methyl-2-Pyrrolidone (SARA 3/3)</td>
<td>1.5%</td>
<td>95%</td>
<td>0.29</td>
<td>100ppm</td>
</tr>
<tr>
<td>Xylene-mixed isomers (SARA 3/3)</td>
<td>40%</td>
<td>95%</td>
<td>5.1</td>
<td>100ppm</td>
</tr>
<tr>
<td>Propylene Glycol Methyl Ether</td>
<td>10%</td>
<td>95%</td>
<td>17</td>
<td>100ppm</td>
</tr>
<tr>
<td>Baseflox 790 contains:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aromatic Solvent</td>
<td>1.6%</td>
<td>95%</td>
<td>n. av.</td>
<td>100ppm</td>
</tr>
<tr>
<td>Butyl Acetate</td>
<td>30%</td>
<td>95%</td>
<td>6</td>
<td>100ppm</td>
</tr>
<tr>
<td>Isopropyl Alcohol</td>
<td>1%</td>
<td>95%</td>
<td>32</td>
<td>400ppm</td>
</tr>
<tr>
<td>Acetone</td>
<td>20%</td>
<td>95%</td>
<td>12.5</td>
<td>150ppm</td>
</tr>
<tr>
<td>Toluene (SARA 3/3)</td>
<td>4%</td>
<td>95%</td>
<td>25</td>
<td>50ppm</td>
</tr>
<tr>
<td>Xylene-mixed isomers (SARA 3/3)</td>
<td>4.4%</td>
<td>95%</td>
<td>5.1</td>
<td>100ppm</td>
</tr>
<tr>
<td>Ethylbenzene (SARA 3/3)</td>
<td>1%</td>
<td>95%</td>
<td>0.29</td>
<td>100ppm</td>
</tr>
<tr>
<td>1,2,4-Trimethylbenzene (SARA 3/3)</td>
<td>1.5%</td>
<td>95%</td>
<td>17</td>
<td>25ppm</td>
</tr>
<tr>
<td>Methyl Butyl Ketone (SARA 3/3)</td>
<td>5%</td>
<td>95%</td>
<td>30</td>
<td>100ppm</td>
</tr>
<tr>
<td>Primer PO contains:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Butyl Acetate</td>
<td>5%</td>
<td>95%</td>
<td>6</td>
<td>150ppm</td>
</tr>
<tr>
<td>Ethylbenzene (SARA 3/3)</td>
<td>17%</td>
<td>95%</td>
<td>7.1</td>
<td>100ppm</td>
</tr>
<tr>
<td>Xylene-mixed isomers(SARA 3/3)</td>
<td>7.5%</td>
<td>95%</td>
<td>5.1</td>
<td>100ppm</td>
</tr>
</tbody>
</table>

### Autocast LV Epoxy contains:

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
<th>Formula</th>
<th>PPM</th>
<th>n. av.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Methyl Ethyl Ketone (SARA 3/3)</td>
<td>5.7%</td>
<td>76%</td>
<td>77.5</td>
<td>200ppm</td>
</tr>
<tr>
<td>Epoxy Resin</td>
<td>10%</td>
<td>95%</td>
<td>100ppm</td>
<td>700ppm</td>
</tr>
<tr>
<td>Epoxy Resin</td>
<td>10%</td>
<td>95%</td>
<td>100ppm</td>
<td>700ppm</td>
</tr>
<tr>
<td>Butyl Acetate</td>
<td>5%</td>
<td>95%</td>
<td>15</td>
<td>100ppm</td>
</tr>
<tr>
<td>Butyl Glycol Ether</td>
<td>1.5%</td>
<td>95%</td>
<td>25</td>
<td>100ppm</td>
</tr>
<tr>
<td>Di-CB Branched Alcohol</td>
<td>1.5%</td>
<td>95%</td>
<td>25</td>
<td>100ppm</td>
</tr>
<tr>
<td>Ammonia</td>
<td>5%</td>
<td>95%</td>
<td>25</td>
<td>100ppm</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>5%</td>
<td>95%</td>
<td>25</td>
<td>100ppm</td>
</tr>
<tr>
<td>Carbon Black (P65)</td>
<td>10%</td>
<td>95%</td>
<td>5</td>
<td>100ppm</td>
</tr>
<tr>
<td>Xylene-mixed isomers(SARA 3/3)</td>
<td>2%</td>
<td>95%</td>
<td>5</td>
<td>100ppm</td>
</tr>
<tr>
<td>Methyl Silicate</td>
<td>5%</td>
<td>95%</td>
<td>5</td>
<td>100ppm</td>
</tr>
<tr>
<td>Ammonia</td>
<td>5%</td>
<td>95%</td>
<td>5</td>
<td>100ppm</td>
</tr>
<tr>
<td>Calcium Oxide</td>
<td>10%</td>
<td>95%</td>
<td>5</td>
<td>100ppm</td>
</tr>
<tr>
<td>Bisphenol A Glycol Ether</td>
<td>5%</td>
<td>95%</td>
<td>5</td>
<td>100ppm</td>
</tr>
<tr>
<td>Methyl Silicone</td>
<td>5%</td>
<td>95%</td>
<td>5</td>
<td>100ppm</td>
</tr>
<tr>
<td>Zinc Phosphate (SARA 3/3)</td>
<td>14%</td>
<td>95%</td>
<td>10</td>
<td>100ppm</td>
</tr>
</tbody>
</table>

### Autocast LV 2.1 contains:

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
<th>Formula</th>
<th>PPM</th>
<th>n. av.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butyl Acetate</td>
<td>10%</td>
<td>95%</td>
<td>6.0</td>
<td>150ppm</td>
</tr>
<tr>
<td>Zinc Phosphate (SARA 3/3)</td>
<td>9%</td>
<td>95%</td>
<td>0.5</td>
<td>100ppm</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>20%</td>
<td>95%</td>
<td>3</td>
<td>100ppm</td>
</tr>
<tr>
<td>Quartz Crystal Silica (P65)</td>
<td>0.3%</td>
<td>95%</td>
<td>1</td>
<td>100ppm</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>20%</td>
<td>95%</td>
<td>1</td>
<td>100ppm</td>
</tr>
</tbody>
</table>

### Washprimover CR Contains:

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
<th>Formula</th>
<th>PPM</th>
<th>n. av.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Butanol (SARA 3/3)</td>
<td>10%</td>
<td>95%</td>
<td>5.5</td>
<td>100ppm</td>
</tr>
<tr>
<td>Formaldehyde-Silica (SARA 3/3)</td>
<td>0%</td>
<td>95%</td>
<td>0.3ppm</td>
<td>7ppm</td>
</tr>
<tr>
<td>Isopropl Alcohol</td>
<td>20%</td>
<td>95%</td>
<td>37.8</td>
<td>400ppm</td>
</tr>
<tr>
<td>Talc</td>
<td>1%</td>
<td>95%</td>
<td>2.1</td>
<td>100ppm</td>
</tr>
<tr>
<td>Zinc Chromate (SARA 3/3)</td>
<td>8.1%</td>
<td>95%</td>
<td>35.5</td>
<td>100ppm</td>
</tr>
</tbody>
</table>

### Washprimover LV Sealer Contains:

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
<th>Formula</th>
<th>PPM</th>
<th>n. av.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene-mixed isomers (SARA 3/3)</td>
<td>3%</td>
<td>95%</td>
<td>5.1</td>
<td>100ppm</td>
</tr>
<tr>
<td>Ethylbenzene (SARA 3/3)</td>
<td>0%</td>
<td>95%</td>
<td>0.29</td>
<td>100ppm</td>
</tr>
<tr>
<td>Talc</td>
<td>9%</td>
<td>95%</td>
<td>2</td>
<td>100ppm</td>
</tr>
<tr>
<td>Zinc Phosphate (SARA 3/3)</td>
<td>14%</td>
<td>95%</td>
<td>3</td>
<td>100ppm</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>12%</td>
<td>95%</td>
<td>1</td>
<td>100ppm</td>
</tr>
<tr>
<td>Methyl Amyl Keton</td>
<td>8%</td>
<td>95%</td>
<td>1.2</td>
<td>100ppm</td>
</tr>
</tbody>
</table>

### Washprimover EM CF Contains:

<table>
<thead>
<tr>
<th>Component</th>
<th>%</th>
<th>Formula</th>
<th>PPM</th>
<th>n. av.</th>
</tr>
</thead>
<tbody>
<tr>
<td>-173-</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
AKZO NOBEL

MATERIAL SAFETY DATA SHEET
Colorbuild 2.1/2.8

Section 1 - Product Information

Manufacturer: Akzo Nobel Coatings Inc.
5555 Spalding Drive
Norcross, GA 30092
USA

Emergency Telephone: Chemtrec: 800-424-9300

Information: 770-246-8454 (USA 7:00am – 4:00pm Eastern Time) 

Canadian Supplier: Akzo Nobel Coatings Ltd.
110 Woodbine Downs Blvd.
Unit #4 Etobicoke, Ontario
Canada M9W 5S8

For Canadian transportation emergencies call - Canutec: 613-996-6666

Item Numbers (US & Canadian):
White 2.1/2.8 002502
Blue 2.1/2.8 002522
Yellow 2.1/2.8 002342
Black 2.1/2.8 002512
Green 2.1/2.8 002532
Red 2.1/2.8 002552

Product Use: primer

Emergency Overview

Signs of Overexposure: Nausea, cough, dizziness, weakness, headache, chest pain, lack of coordination, shortness of breath, dermatitis, redness and/or pain in eyes.

Emergency First Aid: Move to fresh air. Remove contaminated clothing, wash affected skin with soap and water, do not use solvents or thinners. If product gets into eyes, remove contact lenses, flush with water for 15 minutes.

Handling: When handling, wear an organic vapor cartridge respirator (NIOSH / OSHA), solvent resistant gloves and safety eye protection designed to guard against liquid splashes. Use approved bonding and grounding procedures when transferring to another container. Close all containers tightly after use. Do not eat, drink or smoke in work areas.

Clean-up: Eliminate sources of ignition. Dike to reduce extent of spill. Remove with inert absorbent (vermiculite, clay, Oil-Dry® , Kitty Litter, etc.) using non-sparking tools. Transfer to a grounded metal container, seal container. Dispose of as hazardous waste.

Material Appearance: White, Blue, Green, Red, Black or Yellow

Material Physical Appearance: Liquid

Other Precautions: Vapors are heavier than air and may travel along floors. Material has an offensive odor. Prolonged exposure may reduce the user's sensitivity to the odor, thus reducing the effectiveness of odor as a warning against exposure.

Fire Fighting: Flammable liquid, refer to Guide 127 of the North American Emergency Guide Book. Forms explosive mixture with air. Vapors are heavier than air and may travel to a source of ignition and flash back.

NFPA Flammability: 1 C

Akzo Nobel Coatings Inc. has no oversight with respect to the guidance practices or policies or manufacturing processes of other companies handling or using this material. The information given in this MSDS is only related to the product as shipped in its original condition as described in Section 2, "Hazardous Ingredients" and Section 9 "Physical and Chemical Properties".

These products are considered hazardous under the Federal OSHA Hazard Communication Standard
## Section 2 - Hazardous Ingredients

<table>
<thead>
<tr>
<th>Hazardous Ingredient</th>
<th>Percent</th>
<th>CAS No.</th>
<th>Vapor Press.</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>LD₅₀ Oral</th>
<th>LD₅₀ Dermal</th>
<th>LC₅₀ Inhal.</th>
<th>LEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colorbuild 2.1/2.8 contains the following:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Talc</td>
<td>5.1%</td>
<td>14307-56-5</td>
<td>n.ap</td>
<td>2mg/m³</td>
<td>2mg/m³</td>
<td>n.av</td>
<td>n.av</td>
<td>n.av</td>
<td>n.ap</td>
</tr>
<tr>
<td>Zinc Phosphate (SARA 313)</td>
<td>7.6%</td>
<td>7756-96-0</td>
<td>n.ap</td>
<td>n.av</td>
<td>n.av</td>
<td>n.av</td>
<td>n.av</td>
<td>n.av</td>
<td>n.ap</td>
</tr>
<tr>
<td>Calcium Carbonate</td>
<td>10.2%</td>
<td>4471-34-1</td>
<td>n.ap</td>
<td>10mg/m³</td>
<td>15mg/m³</td>
<td>n.av</td>
<td>n.av</td>
<td>n.av</td>
<td>n.ap</td>
</tr>
<tr>
<td>Epoxythene (SARA 313)</td>
<td>0.2%</td>
<td>190-41-4</td>
<td>n.ap</td>
<td>100ppm</td>
<td>100ppm</td>
<td>3500</td>
<td>15486</td>
<td>1.0</td>
<td>n.ap</td>
</tr>
<tr>
<td>Tert-Butyl Alcohol (SARA313)</td>
<td>3.5%</td>
<td>75-65-0</td>
<td>n.ap</td>
<td>100ppm</td>
<td>100ppm</td>
<td>n.av</td>
<td>n.av</td>
<td>n.av</td>
<td>1.0</td>
</tr>
<tr>
<td>Butanone (SARA313)</td>
<td>1.5%</td>
<td>71-36-3</td>
<td>n.ap</td>
<td>5.5</td>
<td>100ppm</td>
<td>790</td>
<td>3400</td>
<td>17</td>
<td>n.ap</td>
</tr>
<tr>
<td>p-Chlorobenzonitrile</td>
<td>0.4%</td>
<td>68-56-6</td>
<td>n.av</td>
<td>5.3</td>
<td>n.av</td>
<td>n.av</td>
<td>6800</td>
<td>2700</td>
<td>4470</td>
</tr>
<tr>
<td>Quartz Crystalline Silica (P65)</td>
<td>0.05%</td>
<td>14809-90-7</td>
<td>n.ap</td>
<td>1mg/m³</td>
<td>1mg/m³</td>
<td>n.av</td>
<td>n.av</td>
<td>n.av</td>
<td>n.ap</td>
</tr>
</tbody>
</table>

**Yellow 2.1/2.8 also includes:**

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Percent</th>
<th>CAS No.</th>
<th>Vapor Press.</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>LD₅₀ Oral</th>
<th>LD₅₀ Dermal</th>
<th>LC₅₀ Inhal.</th>
<th>LEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethyl Acetate</td>
<td>1.5%</td>
<td>141-78-6</td>
<td>76.0</td>
<td>400ppm</td>
<td>400ppm</td>
<td>5620</td>
<td>18031</td>
<td>1500</td>
<td>2.2</td>
</tr>
<tr>
<td>Red 2.1/2.8 also includes:</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Manganese Emanum Salt (SARA313)</td>
<td>3.7%</td>
<td>960</td>
<td>n.ap</td>
<td>6mg/m³</td>
<td>n.av</td>
<td>5000</td>
<td>none</td>
<td>none</td>
<td>n.ap</td>
</tr>
</tbody>
</table>

**Black 2.1/2.8 also includes:**

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Percent</th>
<th>CAS No.</th>
<th>Vapor Press.</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>LD₅₀ Oral</th>
<th>LD₅₀ Dermal</th>
<th>LC₅₀ Inhal.</th>
<th>LEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Carbon Black (P65)</td>
<td>0.8%</td>
<td>1333-96-4</td>
<td>n.ap</td>
<td>3.5mg/m³</td>
<td>3.5mg/m³</td>
<td>n.av</td>
<td>n.av</td>
<td>n.av</td>
<td>n.ap</td>
</tr>
</tbody>
</table>

**White 2.1/2.8 also includes:**

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Percent</th>
<th>CAS No.</th>
<th>Vapor Press.</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>LD₅₀ Oral</th>
<th>LD₅₀ Dermal</th>
<th>LC₅₀ Inhal.</th>
<th>LEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vanadium Oxide</td>
<td>10-20%</td>
<td>13463-67-7</td>
<td>n.ap</td>
<td>10mg/m³</td>
<td>10mg/m³</td>
<td>n.av</td>
<td>n.av</td>
<td>n.av</td>
<td>n.ap</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Percent</th>
<th>CAS No.</th>
<th>Vapor Press.</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
<th>LD₅₀ Oral</th>
<th>LD₅₀ Dermal</th>
<th>LC₅₀ Inhal.</th>
<th>LEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kadin</td>
<td>1.5%</td>
<td>1332-58-7</td>
<td>n.ap</td>
<td>15mg/m³</td>
<td>15mg/m³</td>
<td>n.av</td>
<td>n.av</td>
<td>n.av</td>
<td>n.ap</td>
</tr>
</tbody>
</table>

Chemicals marked with (SARA313) are subject to the requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA); see Section 15 - Regulatory Information. Chemicals marked with (P65) are regulated in California by Proposition 65; see Section 15 - Regulatory Information.

## Section 3 - Hazards Identification

### Primary Routes of Entry:
- Inhalation, skin contact, ingestion, eyes.

### Exposure Effects Acute and Chronic:
- **Inhalation:** Acute: Nasal and respiratory irritation, dizziness, cough, shortness of breath, dehydration, dizziness, weakness, headache, drowsiness, fatigue, nausea, headache, possible unconsciousness, chemical pneumonitis, central nervous system depression and even asphyxiation.
- **Skin contact:** Acute: Extraction of natural oils with resulting dry skin, irritation, redness and dermatitis. Can be absorbed through the skin into the blood.
- **Eye contact:** Acute: Irritation, redness, pain, blurred vision, sensation of seeing halos around lights and reversible damage.
- **Ingestion:** Acute and Chronic: Gastrointestinal irritation, nausea, weakness, fatigue, vomiting and diarrhea; kidney damage, blood system damage.
- **Chronic:** Repeated overexposure to these products may cause central nervous system damage, kidney damage, liver abnormalities, lung damage, cardiac abnormalities, reproductive organ damage, skin sensitization and dermatitis.

### Other Health Effects:
- Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

## Section 4 - First Aid Measures

### Emergency and First Aid Procedures:
- In all cases if symptoms persist, seek medical attention.
- **Inhalation:** Move to fresh air, give artificial respiration if necessary.
- **Skin contact:** Remove contaminated clothing, wash with soap and water or recognized skin cleaner. Do not use solvents or thinners.
- **Eye contact:** Contact lenses must be removed. Flush with water for at least 15 minutes, consult a physician immediately.
- **Ingestion:** Drink one or two glasses of water to dilute. Do not induce vomiting. Consult a physician or poison control center immediately. Treat symptomatically.

### Medical Conditions Prone to Aggravation:
- Pulmonary conditions, liver conditions, kidney conditions, neurological disorders, pregnancy, reproductive system disorders.
AKZO NOBEL

MATERIAL SAFETY DATA SHEET
Autobase Plus Toners

Section 1 - Product Information

Manufacturer: Akzo Nobel Coatings Inc.
5555 Spalding Drive
Norcross, GA 30092
USA

Canadian Supplier: Akzo Nobel Coatings Ltd.
110 Woodbine Downs Blvd.
Unit #4 Etobicoke, Ontario
Canada M9W 5S6

Emergency: For US transportation emergencies call - 1-800-424-9300
Information: 770-246-8454 (USA 7:00am – 3:00pm Eastern Time)

Item and Color Numbers
Q005 049065
Q190 049190
Q235 049235
Q328 049328
Q342 049452
Q673 049673
Q811B 049812
Q922M 049923
Q941M 049929
Q954S 049936

Q066 040008
Q181 049191
Q239 049239
Q348 049348
Q455 049455
Q678 049678
Q811E 049812
Q925M 049924
Q943M 049930
Q964F 049936

Q070 049070
Q185 049195
Q271 049271
Q341 049431
Q550 049550
Q724 049724
Q811J 049813
Q925N 049925
Q933G 049931
Q951F 049931

Q110 049110
Q198 049198
Q279 049279
Q325 049325
Q564 049564
Q725 049725
Q811M 049814
Q933M 049926
Q951F 049931

Q140 049140
Q231 049231
Q326 049326
Q436 049436
Q652 049562
Q728 049726
Q811F 049815
Q933M 049927
Q954M 049934

Q160 049160
Q232 049232
Q437 049437
Q671 049671
Q766 049766
Q811R 049816
Q914F 049922
Q941F 049928

Q77S 049937
Q954H 049933

Product Use: color base coat

Emergency Overview

Signs of Overexposure: Nausea, cough, dizziness, weakness, headache, chest pain, lack of coordination, shortness of breath, dermatitis, redness and/or pain in eyes.

Emergency First Aid: Move to fresh air, remove contaminated clothing, wash effected skin with soap and water, do not use solvents or thinners. If product gets into eyes, remove contact lenses, flush with water for 15 minutes. Handling: When handling wear an organic vapor cartridge respirator (NIOSH / OSHA), solvent resistant gloves and safety eye protection designed to guard against liquid splashes. Use approved bonding and grounding procedures when transferring to another container. Close all containers tightly after use. Do not eat, drink or smoke in work areas. Clean-up: Eliminate sources of ignition. Shake to reduce extent of spill. Remove with inert absorbent (vermiculite, clay, Oi-Dry®, Kitty Litter, etc.) using non-sparking tools. Transfer to a grounded metal container, seal container. Dispose of as hazardous waste.

Material Appearance: Colored

Material Physical Appearance: Liquid

Other Precautions: Vapors are heavier than air and may travel along floors. Material has an offensive odor. Prolonged exposure may reduce the user’s sensitivity to the odor, thus reducing the effectiveness of odor as a warning against exposure. Fire Fighting: Flammable liquid, refer to Guide 127 of the North American Emergency Guide Book. Forms explosive mixture with air, vapors are heavier than air and may travel to a source of ignition and flash back.

NFPA Flammability: 1B or 1C

Akzo Nobel Coatings Inc. has no oversight with respect to the guidance practices or policies or manufacturing processes of other companies handling or using this material. The information given in this MSDS is only related to the product as shipped in its original condition as described in Section 2, “Hazardous Ingredients” and Section 9 “Physical and Chemical Properties”

These products are considered hazardous under the Federal OSHA Hazard Communication Standard

- 190 -
<table>
<thead>
<tr>
<th>Hazardous Ingredient</th>
<th>Percent weight</th>
<th>CAS No.</th>
<th>Vapor Press.</th>
<th>ADGVH PEL</th>
<th>OSHA PEL</th>
<th>LD50 Org.</th>
<th>LD50 Derm</th>
<th>LC50 inh</th>
<th>LEL</th>
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<tbody>
<tr>
<td>Q365 Connector contains:</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Xylenes, mixed aromatics (SARA 313)</td>
<td>13.8%</td>
<td>1330-20-7</td>
<td>5.1</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>4300 &gt;1700</td>
<td>5000</td>
<td>1.0</td>
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<tr>
<td>Ethylbenzene (SARA 313)</td>
<td>3.9%</td>
<td>100-41-4</td>
<td>4.4</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>3500 15486</td>
<td>3.0</td>
<td>1.0</td>
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<tr>
<td>Propylene Glycol Methyl Ether Acetate</td>
<td>5.4%</td>
<td>107-21-1</td>
<td>3.4</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>5857 5000</td>
<td>5000</td>
<td>1.0</td>
<td></td>
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<tr>
<td>Butanol (SARA 413)</td>
<td>3.2%</td>
<td>71-36-3</td>
<td>5.5</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>790 3450</td>
<td>8000</td>
<td>1.7</td>
<td></td>
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<tr>
<td>Isobutanol (SARA 413)</td>
<td>1.5%</td>
<td>67-63-0</td>
<td>3.2</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>5041 12980</td>
<td>10000</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>2-Propanol (SARA 413)</td>
<td>5.4%</td>
<td>67-56-1</td>
<td>5.5</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>3500 10000</td>
<td>10000</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Acetic Acid</td>
<td>0.4%</td>
<td>108-56-2</td>
<td>2.0</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>5660 13000</td>
<td>10000</td>
<td>2.3</td>
<td></td>
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<tr>
<td>Butanol (SARA 313)</td>
<td>5.4%</td>
<td>107-66-0</td>
<td>2.0</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>5041 12980</td>
<td>10000</td>
<td>2.3</td>
<td></td>
</tr>
<tr>
<td>Acetic Acid</td>
<td>0.4%</td>
<td>108-56-2</td>
<td>2.0</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>5660 13000</td>
<td>10000</td>
<td>2.3</td>
<td></td>
</tr>
</tbody>
</table>

All toners contain the following:

| Butyl Acetate | 45.0% | 123-86-4 | 8.0 | 160 ppm | 100 ppm | 10763 17600 | 2000 | 1.7 |
| Isopropyl Alcohol | 0.4% | 108-56-2 | 2.0 | 100 ppm | 100 ppm | 5660 13000 | 10000 | 2.3 |

Q700 also contains:

| Isopropanol | 10.1% | 67-63-0 | 3.2 | 400 ppm | 400 ppm | 5045 12800 | 12000 | 2.3 |

Q110 and Q195 also contain:

| 2-Methylpropene Sulfone | 1.5% | 10192-28-0 | 2.0 | 100 ppm | 100 ppm | 5660 13000 | 10000 | 2.3 |
| Alumina Trihydroxide | 1.5% | 21645-51-2 | 2.0 | 100 ppm | 100 ppm | 5660 13000 | 10000 | 2.3 |
| Titanium Dioxide | 5-25% | 13443-67-7 | 5.0 | 100 ppm | 100 ppm | 790 3450 | 8000 | 1.7 |

Q140 also contains:

| Isopropyl Alcohol | 1.5% | 67-63-0 | 3.3 | 400 ppm | 400 ppm | 3040 12800 | 12000 | 2.3 |
| 2-Ethylhexanol (SARA 133) | 2.6% | 111-76-2 | 0.2 | 205 500 | 470 220 | 450 | 1.1 |
| Carbon Black (PB20) | 1.5% | 1333-86-4 | 3.5 | 100 ppm | 100 ppm | 3500 10000 | 10000 | 2.3 |

Q160 also contains:

| Isopropyl Alcohol | 1.5% | 1333-86-4 | 3.5 | 100 ppm | 100 ppm | 3500 10000 | 10000 | 2.3 |
| Acrylate Copolymer | 5-15% | 11329-00-9 | 2.0 | 100 ppm | 100 ppm | 5660 13000 | 10000 | 2.3 |
| Graphite | 5% | 7780-42-5 | 2.0 | 100 ppm | 100 ppm | 5660 13000 | 10000 | 2.3 |

Q229 also contains:

| Iron Oxide | 5% | 1317-61-9 | 10% | 100 ppm | 100 ppm | 3500 10000 | 10000 | 2.3 |

Q326 also contains:

| 2-Butoxyethanol (SARA 413) | 1.5% | 111-76-2 | 0.2 | 205 500 | 470 220 | 450 | 1.1 |
| Azelaic Acid | 1.5% | 1333-86-4 | 3.5 | 100 ppm | 100 ppm | 3500 10000 | 10000 | 2.3 |
| 2-Butoxyethanol (SARA 413) | 1.5% | 1333-86-4 | 3.5 | 100 ppm | 100 ppm | 3500 10000 | 10000 | 2.3 |

Q326 also contains:

| 2-Ethylhexanol (SARA 133) | 1.5% | 1317-61-9 | 10% | 100 ppm | 100 ppm | 3500 10000 | 10000 | 2.3 |

Q431 also contains:

| 2-Methylpropene Sulfone | 1.5% | 1317-61-9 | 10% | 100 ppm | 100 ppm | 3500 10000 | 10000 | 2.3 |

Q439 also contains:

| 2-butoxyethanol (SARA 413) | 1.5% | 1317-61-9 | 10% | 100 ppm | 100 ppm | 3500 10000 | 10000 | 2.3 |

Q529 also contains:

| 2-Butoxyethanol (SARA 413) | 2.0% | 1317-61-9 | 10% | 100 ppm | 100 ppm | 3500 10000 | 10000 | 2.3 |

Q667 also contains:

| 2-Butoxyethanol (SARA 413) | 2.0% | 1317-61-9 | 10% | 100 ppm | 100 ppm | 3500 10000 | 10000 | 2.3 |
MATERIAL SAFETY DATA SHEET
Clear Coatings

Section 1 - Product Information
Manufacturer: Akzo Nobel Coatings Inc.
5555 Spalding Drive
Norcross, GA 30092
USA

Emergency Telephone: Chemtrec: 800-424-9300
For US transportation emergencies call -

For Canadian transportation emergencies
call - Canatec: 613-996-6666

Information: 770-246-8450 (USA 7:00am - 4:00pm Eastern Time)
Autoclear LV Clear High Solids 001192 - NA
Autoclear LV Nat 001356

Item Numbers (US & Canadian):

Emergency Overview

Signs of Overexposure: Nausea, cough, dizziness, weakness, headache, chest pain, lack of coordination, shortness of
breath, dermatitis, redness and/or pain in eyes.

Emergency First Aid: Move to fresh, remove contaminated clothing, wash effected skin with soap and water, do not
use solvents or thinners; if product gets into eyes, remove contact lenses, flush with water for 15 minutes.

Handling: When handling wear an organic vapor cartridge respirator (NIOSH / OSHA) solvent resistant gloves and
safety eye protection designed to guard against liquid splashes. Use approved bonding and grounding procedures when
transferring to another container. Close all containers tightly after use. Do not eat, drink or smoke in work areas.

Clean-up: Eliminate sources of ignition. Dike to reduce extent of spill. Remove with inert absorbent (vermiculite, clay,
Oil-Dry®, Kitty Litter, etc.) using non-sparking tools. Transfer to a grounded metal container, seal container. Dispose of
as hazardous waste.

Material Appearance: Clear

Material Physical Appearance: Liquid

Other Precautions: Vapors are heavier than air and may travel along floors. Material has an offensive odor. Prolonged
exposure may reduce the user’s sensitivity to the odor, thus reducing the effectiveness of odor as a warning against
exposure.


NFPA Flammability: IC

Akzo Nobel Coatings Inc. has no oversight with respect to the guidance practices or policies or manufacturing processes
of other companies handling or using this material. The information given in this MSDS is only related to the product as
shipped in its original condition as described in Section 2, "Hazardous Ingredients" and Section 9 "Physical and Chemical
Properties".

These products are considered hazardous under the Federal OSHA Hazard Communication Standard
Section 2 - Hazardous Ingredients

<table>
<thead>
<tr>
<th>Hazardous Ingredient</th>
<th>% by weight</th>
<th>CAS No</th>
<th>Vapor Press.</th>
<th>ACGIH TLV</th>
<th>GSHA PEL</th>
<th>LD\textsubscript{50} Oral</th>
<th>LD\textsubscript{50} Dermal</th>
<th>LD\textsubscript{50} Inhal</th>
<th>LEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aromatic Solvent</td>
<td>1-5%</td>
<td>000</td>
<td>n. av.</td>
<td>100 ppm</td>
<td>n. av.</td>
<td>n. av.</td>
<td>n. av.</td>
<td>n. av.</td>
<td>n. av.</td>
</tr>
<tr>
<td>Toluene (SARA313)</td>
<td>1-5%</td>
<td>000</td>
<td>n. av.</td>
<td>100 ppm</td>
<td>n. av.</td>
<td>7755 1100 0.4 mg/l n. av.</td>
<td>n. av.</td>
<td>n. av.</td>
<td>n. av.</td>
</tr>
<tr>
<td>Benzotriazole Complex</td>
<td>1-5%</td>
<td>25973-55-1</td>
<td>n. av.</td>
<td>n. av.</td>
<td>150 ppm</td>
<td>10768 17600 2600 1.7</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Butyl Acetate</td>
<td>20-40%</td>
<td>123-85-4</td>
<td>8.0</td>
<td>150 ppm</td>
<td>150 ppm</td>
<td>10768 17600 2000 1.7</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ethyl Acetate</td>
<td>1-5%</td>
<td>54-18-5</td>
<td>2.0</td>
<td>25 ppm</td>
<td>25 ppm</td>
<td>3560 16000 n. av. n. av.</td>
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<td></td>
<td></td>
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<tr>
<td>Methyl Acetate</td>
<td>10-20%</td>
<td>110-43-6</td>
<td>2.1</td>
<td>50 ppm</td>
<td>100 ppm</td>
<td>1670 10200 2000 1.1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propylene Glycol Methyl Ether Acetate</td>
<td>1.5%</td>
<td>108-85-6</td>
<td>3.4</td>
<td>100 ppm</td>
<td>n. av.</td>
<td>8522 5600 n. av. n. av.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Toluene(SARA313)/Poly (1.5%</td>
<td>0.3%</td>
<td>108-85-3</td>
<td>22.6</td>
<td>50 ppm</td>
<td>200 ppm</td>
<td>636 12305 400 1.1</td>
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<tr>
<td>Ethylbenzene (SARA313)</td>
<td>0.5%</td>
<td>100-41-4</td>
<td>7.1</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>3500 15400 n. av. 1.0</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Xylene mixed solvents(SARA313)</td>
<td>2.1%</td>
<td>1320-20-7</td>
<td>5.1</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>3500 15400 n. av. 1.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Aromatic Solvent</td>
<td>5-10%</td>
<td>000</td>
<td>n. av.</td>
<td>100 ppm</td>
<td>n. av.</td>
<td>3160 1100 0.4 mg/l n. av.</td>
<td>n. av.</td>
<td>n. av.</td>
<td>n. av.</td>
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<tr>
<td>Ammonium Sulfate</td>
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<td>60 ppm</td>
<td>n. av. n. av. n. av. n. av</td>
<td>n. av. n. av. n. av. n. av</td>
<td>n. av. n. av. n. av. n. av</td>
<td>n. av.</td>
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<tr>
<td>Benzotriazole Complex</td>
<td>1-5%</td>
<td>25973-55-1</td>
<td>n. av.</td>
<td>n. av.</td>
<td>150 ppm</td>
<td>10768 17600 2000 1.7</td>
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<tr>
<td>Butyl Acetate</td>
<td>10-20%</td>
<td>123-85-4</td>
<td>8.0</td>
<td>150 ppm</td>
<td>150 ppm</td>
<td>10768 17600 2000 1.7</td>
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<tr>
<td>Ethyl Acetate</td>
<td>1-5%</td>
<td>54-18-5</td>
<td>2.0</td>
<td>25 ppm</td>
<td>25 ppm</td>
<td>3500 16000 n. av. n. av.</td>
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<tr>
<td>Methyl Acetate</td>
<td>10-20%</td>
<td>110-43-6</td>
<td>2.1</td>
<td>50 ppm</td>
<td>100 ppm</td>
<td>1670 10200 2000 1.1</td>
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<tr>
<td>Propylene Glycol Methyl Ether Acetate</td>
<td>1-5%</td>
<td>108-85-6</td>
<td>3.4</td>
<td>100 ppm</td>
<td>n. av.</td>
<td>8522 5600 n. av. n. av.</td>
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<tr>
<td>Ethylbenzene (SARA313)</td>
<td>0.5%</td>
<td>100-41-4</td>
<td>7.1</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>3500 15400 n. av. 1.0</td>
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<tr>
<td>Xylene mixed solvents(SARA313)</td>
<td>2.1%</td>
<td>1320-20-7</td>
<td>5.1</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>3500 15400 n. av. 1.0</td>
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<tr>
<td>Synthetic Amorphous Silica</td>
<td>10-20%</td>
<td>63311-67-4</td>
<td>n. av.</td>
<td>100 ppm</td>
<td>60 ppm</td>
<td>31600 2600 n. av. n. av.</td>
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<tr>
<td>Toluene(SARA313/P69)</td>
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<td>22.0</td>
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<tr>
<td>Benzotriazole Complex</td>
<td>1-5%</td>
<td>25973-55-1</td>
<td>n. av.</td>
<td>n. av.</td>
<td>150 ppm</td>
<td>10768 17600 2000 1.7</td>
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<tr>
<td>Aromatic Solvent</td>
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<td>000</td>
<td>n. av.</td>
<td>100 ppm</td>
<td>n. av.</td>
<td>3160 1100 0.4 mg/l n. av.</td>
<td>n. av.</td>
<td>n. av.</td>
<td>n. av.</td>
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<tr>
<td>Butyl Acetate</td>
<td>5-10%</td>
<td>123-85-4</td>
<td>8.0</td>
<td>150 ppm</td>
<td>150 ppm</td>
<td>10768 17600 2000 1.7</td>
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</tr>
<tr>
<td>Ethyl Acetate</td>
<td>1-5%</td>
<td>54-18-5</td>
<td>2.0</td>
<td>25 ppm</td>
<td>25 ppm</td>
<td>3500 16000 n. av. n. av.</td>
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<tr>
<td>Propylene Glycol Methyl Ether Acetate</td>
<td>1-5%</td>
<td>108-85-6</td>
<td>3.4</td>
<td>100 ppm</td>
<td>n. av.</td>
<td>8522 5600 n. av. n. av.</td>
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<td>Ethylbenzene (SARA313)</td>
<td>0.5%</td>
<td>100-41-4</td>
<td>7.1</td>
<td>100 ppm</td>
<td>100 ppm</td>
<td>3500 15400 n. av. 1.0</td>
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<td>100 ppm</td>
<td>3500 15400 n. av. 1.0</td>
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</tr>
<tr>
<td>Synthetic Amorphous Silica</td>
<td>10-20%</td>
<td>63311-67-4</td>
<td>n. av.</td>
<td>100 ppm</td>
<td>60 ppm</td>
<td>31600 2600 n. av. n. av.</td>
<td></td>
<td></td>
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</tbody>
</table>

LD\textsubscript{50} Oral - rat mg/m\textsuperscript{3}. LD\textsubscript{50} Dermal - rabbit mg/m\textsuperscript{3}. LC\textsubscript{50} Inhalation - rat mg/m\textsuperscript{3} unless otherwise specified.

Chemicals marked with (SARA313) are subject to the requirements of Section 313 of the Emergency Planning and Community Right-to-Know Act of 1986 (EPCRA); see Section 15 - Regulatory Information. Chemicals marked with (P65) are regulated in California by Proposition 65; see Section 15 - Regulatory Information.

Section 3 – Hazards Identification

Primary Routes of Entry: Inhalation, skin contact, ingestion, eyes.

Exposure Effects Acute and Chronic:

Inhalation: Acute: Nasal and respiratory irritation, nausea, cough, shortness of breath, dehydration, dizziness, weakness, headache, drowsiness, fatigue, chest pain, vomiting, central nervous system effects, asphyxiation.

Skin contact: Acute: Extraction of natural oils with resulting dry skin, irritation, redness and dermatitis. Can be absorbed through the skin into the blood causing drowsiness.

Eye contact: Acute: Irritation, redness, pain, blurred vision, sensation of seeing halos around lights and reversible damage.

Ingestion: Acute: Gastrointestinal irritation, nausea, vomiting, diarrhea, weakness, drowsiness, fatigue, lack of coordination, central nervous system effects, depression.

Chronic: Repeated overexposure to this product may cause central nervous system damage, kidney damage, liver abnormalities, lung damage, cardiac abnormalities, reproductive organ damage, eye damage.

Other Health Effects:

Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

Section 4 – First Aid Measures

Emergency and First Aid Procedures: In all cases if symptoms persist, seek medical attention. – 238 –
MSDSs for Murphy Coatings
SECTION I - PRODUCT: CARBOZINC 11 HS BASE
Date: 11/08/99 Replaces 09/14/99
(aka CARBO ZINC 11 HS BASE)
CHEMTREC TRANSPORTATION EMERGENCY PHONE NO.: 800-424-9300
PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.: 412-681-6669

SECTION II - HAZARDOUS INGREDIENTS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
<th>(D)</th>
<th>(E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALKYL SILICATE P89-882</td>
<td>40% NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>ETHYL ALCOHOL 64-17-5</td>
<td>25% 1000 PPM</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>FM SOLVENT 107-98-2</td>
<td>10% 100 PPM</td>
<td>150 PPM</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>MICA 12001-26-2</td>
<td>5% 3MG/M3</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>COLOR PIgment MIXTURE</td>
<td>5% 3.5MG/M3</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>METHYL SILICATE 681-84-5</td>
<td>1% 1PPM</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td></td>
</tr>
</tbody>
</table>

HazardouS ingredients

- ALKYL SILICATE NOT AVAILABLE
- ETHYL ALCOHOL 70500MG/KG RAT, ORAL NO/NO
- FM SOLVENT 20000PPM/10HRS RAT, INHALATION NO/YES/1,2,3
- MICA NOT AVAILABLE
- COLOR PIgment NOT AVAILABLE
- METHYL SILICATE NOT AVAILABLE

Additional DATA

TABLE (A) CAS NUMBER (B) LESS THAN WT (C) TLV-TWA (D) STEL (E) CEILING (F)
TOXICITY DATA (LD50/Route, LC50/Route) (G) SARA 302/SARA 313/ SARA 311-312
CATEGORIES/CERCLA. NE = not established, NR = not required, NC = no. Color Pigment mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black, and other particulates not otherwise regulated in varying amounts depending on color of product.

WHMIS CLASSIFICATION: B2 --- D2B
NMIS/NFFA CLASSIFICATION: HEALTH 3, FLAMMABILITY 3, REACTIVITY 1,
PERSONAL PROTECTION CODE G, NFPA FIRE FIGHTING PHASE 4

SECTION III - PHYSICAL DATA:

- EVAPORATION RATE: Slower than ether. VOLATILE BY WEIGHT 40 %. VOLATILE BY VOLUME: 66 %. PRODUCT WT/GAL: 10.6 LBS/U.S.GAL. 1.27 sp gr.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: FLASH POINT: 55 °F(12°C) (Setaflash) LEL 1.8 %
UEL 19.0 %.
OSHA-FIAMMABLE LIQUID/OSHA/CLASS1B. DOT-FIAMMABLE LIQUID NOS* 3,UN1993,PGII,
CANSADIAN TDG: FLAMMABLE LIQUID NOS* 3,UN1993,PGII
EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog.
FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and will accumulate.
Vapors will form explosive concentrations with air. Vapors travel long distances and will flashback. Use mechanical ventilation when necessary to keep percent vapor below the "Lower Explosion Level" (LEL). Eliminate all ignition sources. Keep away from sparks, open flames and heat sources. All electric equipment and installations should be made and grounded in accordance with the National Electrical Code. In areas where explosion hazards exist, workers should be required to use nonferrous tools and to wear conductive and non-sparking shoes.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected personnel. Use a NIOSH approved self-contained breathing unit and complete body protection. Cool surrounding containers with water in case of fire exposure.

SECTION V - HEALTH HAZARD DATA:

INHALATION: Harmful if inhaled, may affect the brain or nervous system, causing dizziness, headache or nausea. May cause nose and throat irritation. May cause skin irritation. May cause skin irritation. May cause skin irritation.

CONTACT: May be harmful if absorbed through the skin. May cause eye irritation. May cause skin irritation.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

MEDICAL CONDITIONS PROMPTING AGgravated by EXPOSURE: If you have a condition that could be aggravated by exposure to dust or organic vapors; see a physician prior to use.

PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.

EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.

EYE CONTACT: Flush with water for 15 minutes.

SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and clean before reuse.

INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult. Use artificial respiration if not breathing. Get medical attention. INHALED: DO NOT INDUCE VOMITING!! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.

HAZARDOUS POLYMORPHIZATION: Will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe any fumes or smoke from these operations.

CONDITIONS TO AVOID: Heat, sparks, and open flames.

INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and
PRODUCT: CARBOZINC 11 HS BASE

Date: 11/08/99  Replaces 09/14/99

equipment. Follow safe handling and use guidelines in Section VIII. Contain and soak up residual with an absorbent (clay or sand). Take up absorbent material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section II for Sara Title III and CERCLA information.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below exposure guidelines. (Section II). User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor use MSHA/NIOSH approved supplied air respirator. Follow all current OSHA requirements for respirator use.

VENTILATION: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

SKIN AND EYE PROTECTION: Recommend impervious gloves, clothing and safety glasses with side shields or chemical goggles to avoid skin and eye contact. If material penetrates to skin, change gloves and clothing. Hypersensitive persons should wear gloves or use protective cream.

HYGIENIC PRACTICES: Wash with soap and water before eating, drinking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and pass through hazardous materials. Check shoes carefully after soaking before reuse.

APPLICATION: Use only in accordance with Carboline application instructions, container label and Product Data Sheet.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat, sparks, open flame, and strong oxidizing agents. Keep containers closed. Store in cool, dry place with adequate ventilation. If pouring or transferring materials, ground all containers and tools.

OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty containers.

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Carboline Company 350 Hanley Ind. Ct. St. Louis, MO 63144
PHONE NO. 314-844-1000  FOR INDUSTRIAL USE ONLY
CARBOLINE CO. MATERIAL SAFETY DATA SHEET
PRODUCT: CARBOZINC 11 HS BASH
Date: 11/08/99  Replaces 09/14/99
SPECIFIC STATE REGULATORY INFORMATION

NEW JERSEY

PENNSYLVANIA
Non-Hazardous Materials above 1 Percent:

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<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Pct</th>
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</thead>
<tbody>
<tr>
<td>SILICA AMORPHOUS</td>
<td>NE</td>
<td>25%</td>
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CALIFORNIA

WARNING: This product contains a chemical(s) known to the State of California to cause cancer, and birth defects or other reproductive harm.
SECTION I - PRODUCT: ZINC FILLER

Date: 07/09/99  Replaces 02/24/99

CHEMTREC TRANSPORTATION EMERGENCY PHONE NO.: 800-424-9300
PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.: 412-681-6669

SECTION II - HAZARDOUS INGREDIENTS EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
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<th>(B)</th>
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<th>(D)</th>
<th>(E)</th>
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<td>7440-66-6</td>
<td>100%</td>
<td>10MG/M3</td>
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<td>0.2%</td>
<td>.05MG/M3</td>
<td>.03MG/M3</td>
<td>NE</td>
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HAZARDOUS INGREDIENTS ADDITIONAL DATA

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<tr>
<th>CHEMICAL NAME</th>
<th>(F)</th>
<th>(G)</th>
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</tr>
<tr>
<td>LEAD</td>
<td>NOT AVAILABLE</td>
<td>NO/YES/2</td>
</tr>
</tbody>
</table>

TABLE (A) CAS NUMBER (B) LESS THAN WT (C) TLV-TWA (D) STEL (E) CEILING (F) TOXICITY DATA (LD50/Route, LC50/Route) (G) SARA 302/SARA 313/ SARA 311-312 CATEGORIZED/CHECLA. NE = not established, ND = not required, NO = no. Color Pigment Mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black, and other particulates not otherwise regulated in varying amounts depending on color of product.

WHMIS CLASSIFICATION: D2A -- D2B -- P

EMIS/NFPA CLASSIFICATION: HEALTH 3, FLAMMABILITY 0, REACTIVITY 0, PERSONAL PROTECTION CODE B, NFPA FIRE FIGHTING PHASE 4

SECTION III - PHYSICAL DATA:

BOILING RANGE: N/A. VAPOR DENSITY: N/A. EVAPORATION RATE: N/A. VOLATILE BY WEIGHT: 0%. VOLATILE BY VOLUME: 0%. PRODUCT WT/GAL: 58.5 LBS/U.S. GAL. 7.03 g/L.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: FLASH POINT: No Flash Point. LEL: N/A. UEL: N/A.

OSHA, DOT-ZINC FILLER, NOT REGULATED. CANADIAN TDGA: ZINC DUST UN1436 4.3 P11 (DANGEROUS WHEN WET) (DECLASSIFICATION REQUESTED)

NON REGULATED POWDER: The product has been tested and shown to fall well below the level of gas emission when exposed to water (49CFR PART 173.1,4) and is therefore not a regulated product and is not defined as dangerous when wet. Product is packed in steel or plastic water tight containers.

EXTINGUISHING MEDIA: Dry Chemical, Carbon Dioxide. Since material is packed in water tight containers water may be used to cool containers.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Recent testing has shown that this type of zinc powder evolves only a small amount of hydrogen gas when in contact with moisture or water. Also with the material packed in small containers that are water proof only broken or opened containers will have exposed powder. Contact with alkalis, or acids should be avoided because the
PRODUCT: ZINC FILLER
Date: 07/09/99 Replaces 02/24/99 (0231B1NL)

reaction will liberate sufficient quantities of hydrogen gas and may explode on contact with oxidizing agents such as sulfur and oxygen or strong oxidizers.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area. Wear protective clothing. Use a NIOSH approved self-contained breathing unit. Cover all open zinc dust containers. Do not spread out material. Water can react with hot zinc dust to form hydrogen gas.

SECTION V - HEALTH HAZARD DATA:

INHALATION: Overexposure will be irritating to mucous membranes.

CONTACT: May cause eye irritation. May cause skin irritation.

NOTICE: Contains LEAD which may cause blood disorders and lead poisoning.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: If you have a condition that could be aggravated by exposure to dust or organic vapors see a physician prior to use.

PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.

EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.

EYE CONTACT: Flush with water for 15 minutes.

SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and clean before reuse.

INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult. Use artificial respiration if not breathing. Get medical attention.

IF SWALLOWED: DO NOT INDUCE VOMITING!!! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCT: Under fire conditions hot zinc dust that is exposed to water could generate Hydrogen gas. When welding, heating or torch cutting surfaces coated with a zinc coating Zinc Oxide Fume can be produced and could cause "metal fume fever". Use exhaust systems and proper breathing protection to avoid breathing the fumes resulting from these conditions.

CONDITIONS TO AVOID: Avoid water contact with opened zinc powder containers.

INCOMPATIBILITY: Avoid contact with strong oxidizing agents either acids or bases.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Use dry cleanup methods that do not disperse dust into the air. Avoid breathing the dust. Take up the material and seal tightly for proper disposal.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below exposure guidelines. (Section II). User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not
PRODUCT: ZINC FILLER (0231BINL)
Date: 07/09/99 Replaces 02/24/99

able to monitor use MSHA/NIOSH approved supplied air respirator.
VENTILATION: Use explosion-proof ventilation when required to keep below
health exposure guidelines and Lower Explosion Limit (LEL).
SKIN AND EYE PROTECTION: Recommend imperious gloves, clothing and safety
glasses with side shields or chemical goggles to avoid skin and eye contact.
If material penetrates to skin, change gloves and clothing.
HYGIENIC PRACTICES: Wash with soap and water before eating, drinking,
applying cosmetics, or using toilet facilities. Use of a hand cleaner is
recommended. Launder contaminated clothing before reuse. Leather shoes can
absorb and pass through hazardous materials. Check shoes carefully after
soaking before reuse.

SECTION IX - SPECIAL PRECAUTIONS:
------------------------------------------------------------------------
PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat,
sparks, open flame, and strong oxidizing agents. Keep containers closed.
Store in cool, dry place with adequate ventilation. If pouring or
transferring materials, ground all containers and tools.
OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty
containers.

The information contained herein is, to the best of our knowledge and belief
accurate. However, since the conditions of handling and use are beyond our
control, we make no guarantee of results, and assume no liability for damages
incurred by use of this material. It is the responsibility of the user to
comply with all applicable federal, state, and local laws and regulations.

Carboline Company 150 Banley Ind. Ct. St. Louis, MO 63144
PHONE NO. 314-644-1800 FOR INDUSTRIAL USE ONLY
SPECIFIC STATE REGULATORY INFORMATION

NEW JERSEY
PENNSYLVANIA
Non-Hazardous Materials above 1 Percent:
Name  CAS  Pot
----------------------------------  ------
No materials meet this criteria

CALIFORNIA

WARNING: This product contains a chemical(s)
known to the State of California to cause
cancer, and birth defects or other reproductive harm.
SECTION I - PRODUCT: CARBOZINC HS ACTIVATOR (9249CINL)

CHEMTREC TRANSPORTATION EMERGENCY PHONE NO.: 800-424-9300
PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.: 412-681-6669

DATE: 07/17/95 REPLACES 03/21/94

SECTION II - HAZARDOUS INGREDIENTS

CHLORINE
AMMONIA
N-BUTANOL
ZINC CHLORIDE
TITANATE

Hazardous Ingredients Additional Data

TABLE (A) CAS NUMBER (B) LESS THAN WT (C) TLV-TWA (D) STEL (E) CEILING (F)

TOXICITY DATA: (G) SARA 362/SARA 313/ SARA 311-312
CATALOG/S/CERCLA. NE = not established, NR = not required, NO = no. Color
Figment mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black,
and other particulates not otherwise regulated in varying amounts depending
on color of product.

WHMIS CLASSIFICATION: B2 -- D2B
EMIS/NFPA CLASSIFICATION: HEALTH 3, FLAMMABILITY 3, REACTIVITY 1,
PERSONAL PROTECTION CODE G, NFPA FIRE FIGHTING PHASE 4

SECTION III - PHYSICAL DATA:

BOILING RANGE: 243F (117C) - 248F (120C). VAPOR DENSITY: Heavier than air.
EVAPORATION RATE: Slower than ether. VOLATILE BY WEIGHT 95 %. VOLATILE BY
VOLUME: 99 %. PRODUCT WT/GAL: 7.8 LBS/US GALLON. 0.94 SF CF.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: FLASH POINT: 91 F (32C) (Setaflash) LELE 1.4 %
UL 13.8 %. OSHA-Paint/Flammable/Liquid/UN1263/P gi. III. DOT-Paint. 3, UN1263, PG III. CANADIAN
TDGA: P AINT. 3, UN1263, PG III.
EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and will
accumulate. Vapors will form explosive concentrations with air. Vapors
travel long distances and will flashback. Use mechanical ventilation when
necessary to keep percent vapor below the "Lower Explosion Level" (LEL).
SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected
personnel. Use a NICSH approved self-contained breathing unit and complete
PRODUCT: CARBOZINC HS ACTIVATOR  (0249C1NL)

Date: 07/17/95  Replaces 03/22/94

body protection. Cool surrounding containers with water in case of fire exposure.

SECTION V - HEALTH HAZARD DATA:

INHALATION: Harmful if inhaled, may affect the brain or nervous system, causing dizziness, headache or nausea. May cause nose and throat irritation. May cause lung injury.
CONTACT: May be harmful if absorbed through the skin. May cause eye burns. May cause skin irritation.
NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.
MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: If you have a condition that could be aggravated by exposure to dust or organic vapors see a physician prior to use.

PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.
EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.
EYE CONTACT: Flush with water for 15 minutes.
SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and clean before reuse.
INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult. Use artificial respiration if not breathing. Get medical attention.
IF SWALLOWED: DO NOT INDUCE VOMITING!! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.
HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe.
CONDITIONS TO AVOID: Heat, sparks, and open flames.
INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and equipment. Follow safe handling and use guidelines in Section VIII. Contain and soak up residual with an absorbent (clay or sand). Take up absorbent material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section II for SARA Title III and CERCLA information.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below
exposure guidelines. (Section II). User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor use MSHA/NIOSH approved air-purifying respirator.

VENTILATION: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

SKIN AND EYE PROTECTION: Recommend impervious gloves, clothing and safety glasses with side shields or chemical goggles to avoid skin and eye contact. If material penetrates to skin, change gloves and clothing.

HYGIENIC PRACTICES: Wash with soap and water before eating, drinking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and pass through hazardous materials. Check shoes carefully after soaking before reuse.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat, sparks, open flame, and strong oxidizing agents. Keep containers closed. Store in cool, dry place with adequate ventilation. If pouring or transferring materials, ground all containers and tools.

OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty containers.

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Carboline Company 350 Hanley Ind. Ct. St. Louis, MO 63144
PHONE NO. 314-644-1000 FOR INDUSTRIAL USE ONLY
CARBOLINE CO. MATERIAL SAFETY DATA SHEET
PRODUCT: CARBOZINC HS ACTIVATOR
Date: 07/17/95 Replaces 03/22/94
SPECIFIC STATE REGULATORY INFORMATION

NEW JERSEY

PENNSYLVANIA
Non-Hazardous Materials above 1 Percent:
Name         CAS     Pct
-------------- --------- -----
No materials meet this criteria

CALIFORNIA

WARNING: This product contains a chemical(s) known to the State of California to cause cancer, and birth defects or other reproductive harm.
**SECTION I - PRODUCT:** CARBOLINE 900 PART A  
**Date:** 11/06/99  
**(aka CARBOLINE 900 PART A)**  
**CHEMTEC TRANSPORTATION EMERGENCY PHONE NO.:** 800-424-9300  
**PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.:** 412-681-6669

**SECTION II - HAZARDOUS INGREDIENTS**

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
<th>(D)</th>
<th>(E)</th>
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<tr>
<td>COLOR PIGMENT</td>
<td>MIXTURE</td>
<td>30%</td>
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**HAZARDOUS INGREDIENTS**

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<td>EPOXY RESIN</td>
<td>11.4G/KG RAT, ORAL</td>
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**ADDITIONAL DATA**

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<th></th>
<th>3670PPM/8 HRS RAT, INHALATION</th>
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</table>

**TABLE (A) CAS NUMBER (B) LESS THAN WT (C) TLV-TWA (D) STEL (E) CEILING (F)**

**TOXICITY DATA (LD50/Route, LC50/Route) (G) SARA 302/SARA 313/ SARA 311-312**

**CATEGORIES/CERCLA. NR = not established, NE = not required, NO = no. Color**

**Pigment Mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black,**

**and other particulates not otherwise regulated in varying amounts depending on**

**color of product.**

**WHSIS CLASSIFICATION:** B2 — D2A — D1B

**HMIS/NFPA CLASSIFICATION:** HEALTH 2, FLAMMABILITY 3, REACTIVITY 0.

**PERSONAL PROTECTION CODE G, NFPA FIRE FIGHTING PHASE 4**

**SECTION III - PHYSICAL DATA:**

**BOILING RANGE:** 277°F (136°C) - 355°F (179°C)  
**VAPOR DENSITY:** Heavier than air.  
**EVAPORATION RATE:** Slower than ether.  
**VOLATILE BY WEIGHT:** 10%.  
**VOLATILE BY VOLUME:** 17%.  
**PRODUCT WT/GAL:** 11.7 LBS/T.S.GAL.  
**1.41 sp gr.**

**SECTION IV - FIRE AND EXPLOSION HAZARD DATA:**

**FLAMMABILITY CLASSIFICATION:** FLASH POINT: 89°F (31°C) (BetaFlash) LEL 1.0%  
**URL 7.0%**  
**OSHA FLAMMABLE LIQUID/OSHA CLASS 1C, DOT PAINT 3, UN1263, PG III, CANADIAN TDGA:**  
**PAINT 3, UN1263, PG III**
EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog.
UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and will accumulate. Vapors will form explosive concentrations with air. Vapors travel long distances and will flashback. Use mechanical ventilation when necessary to keep percent vapor below the "Lower Explosion Level" (LEL).
SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected personnel. Use a NIOSH approved self-contained breathing unit and complete body protection. Cool surrounding containers with water in case of fire exposure.

SECTION V - HEALTH HAZARD DATA:
---------------------------------------------------------------
INHALATION: Harmful if inhaled. May affect the brain or nervous system, causing dizziness, headache or nausea. May cause nose and throat irritation. CONTACT: May cause eye irritation. May cause skin irritation. May cause allergic skin reaction.
NOTICE: Contains SILICA which can cause cancer. Risk of cancer depends on duration and level of exposure. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.
MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: If sensitized to amines, epoxies or other chemicals do not use. See a physician if a medical condition exists.
PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.
EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention. SYS CONTACT: Flush with water for 15 minutes. SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and clean before reuse.
INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult. Use artificial respiration if not breathing. Get medical attention. IF SWALLOWED: DO NOT INDUCE VOMITING! Always get medical attention.

SECTION VI - REACTIVITY DATA:
---------------------------------------------------------------
STABILITY: This product is stable under normal storage conditions.
HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe.
CONDITIONS TO AVOID: Heat, sparks, and open flames.
INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:
---------------------------------------------------------------
STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and equipment. Follow safe handling and use guidelines in Section VIII. Contain
and soak up residual with an absorbent (clay or sand). Take up absorbent material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section II for SARA Title III and CERCLA information.

SECTION VII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below exposure guidelines. (Section II). User should test and monitor exposure levels to ensure all personnel are below guidelines. If not sure or if not able to monitor use MSHA/NIOSH approved supplied air respirator.

VENTILATION: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

SKIN AND EYE PROTECTION: Recommend impenetrable gloves, clothing and safety glasses with side shields or chemical goggles to avoid skin and eye contact. If material penetrates to skin, change gloves and clothing.

HYGIENIC PRACTICES: Wash with soap and water before eating, drinking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and pass through hazardous materials. Check shoes carefully after soaking before reuse.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat, sparks, open flame, and strong oxidizing agents. Keep containers closed. Store in cool, dry place with adequate ventilation. If pouring or transferring materials, ground all containers and tools.

OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty containers.

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Carboline Company 350 Hanley Ind. Ct. St. Louis, MO 63144
PHONE NO. 314-644-1000 FOR INDUSTRIAL USE ONLY
### NEW JERSEY
### PENNSYLVANIA
Non-Hazardous Materials above 1 Percent:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>EPOXY RESIN</td>
<td>25036-25-1</td>
<td>20%</td>
</tr>
<tr>
<td>ALKYD PHTHALATE</td>
<td>68515-41-4</td>
<td>15%</td>
</tr>
<tr>
<td>EPOXY RESIN</td>
<td>25036-23-1</td>
<td>15%</td>
</tr>
</tbody>
</table>

### CALIFORNIA

**WARNING:** This product contains a chemical(s) known to the State of California to cause cancer, and birth defects or other reproductive harm.
SECTION I - PRODUCT: CARBOLINE 890 PART B
(0985BNL)
Date: 11/08/99  Replaces 01/05/99
(aka CARBOLINE 890 PART B)
CHEMTREC TRANSPORTATION EMERGENCY PHONE NO.: 800-424-9300
PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.: 412-681-5659

SECTION II - HAZARDOUS INGREDIENTS  EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
<th>(D)</th>
<th>(E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILICA</td>
<td>14808-60-7</td>
<td>65%</td>
<td>0.1MG/M3</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>10%</td>
<td>100 PPM</td>
<td>150 PPM</td>
<td>NE</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>5%</td>
<td>100 PPM</td>
<td>125 PPM</td>
<td>NE</td>
</tr>
<tr>
<td>ISOPHORONE DIAMINE</td>
<td>2855-13-2</td>
<td>5%</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>DIAMINOCYCLOHEXANE</td>
<td>694-83-7</td>
<td>5%</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>CYCLOALIPHATIC AMINE</td>
<td>TRADE SECRET</td>
<td>5%</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>CYCLOALIPHATIC AMINE BURN</td>
<td>5%</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>AROMATIC SOLVENT</td>
<td>64742-95-6</td>
<td>5%</td>
<td>25 PPM</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>ISOPROPANOL</td>
<td>67-63-0</td>
<td>5%</td>
<td>400 PPM</td>
<td>500 PPM</td>
<td>NE</td>
</tr>
</tbody>
</table>

Hazardous Ingredients  Additional Data

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>(F)</th>
<th>(G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILICA</td>
<td>NOT AVAILABLE</td>
<td>NO/NO/NO/NO</td>
</tr>
<tr>
<td>XYLENE</td>
<td>4300MG/KG RAT, ORAL</td>
<td>NO/YES/1,2,3/</td>
</tr>
<tr>
<td>150000 PPM/4HRS RAT, INHALATION</td>
<td>1300# 1200# 1300#</td>
<td></td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>NOT AVAILABLE</td>
<td>NO/YES/1,2,3/</td>
</tr>
<tr>
<td>ISOPHORONE DIAMINE</td>
<td>&gt;0.5 G/KG ORAL</td>
<td>NO/NO</td>
</tr>
<tr>
<td>&gt;2 G/KG DERMAL</td>
<td>NO/NO</td>
<td></td>
</tr>
<tr>
<td>DIAMINOCYCLOHEXANE</td>
<td>750 MG/KG ORAL</td>
<td>NO/NO</td>
</tr>
<tr>
<td>CYCLOALIPHATIC AMINE</td>
<td>1230 MG/KG ORAL</td>
<td>NO/NO/1,2</td>
</tr>
<tr>
<td>CYCLOALIPHATIC AMINE</td>
<td>NOT AVAILABLE</td>
<td>NO/NO/1,2</td>
</tr>
<tr>
<td>AROMATIC SOLVENT</td>
<td>47000MG/KG RAT, ORAL</td>
<td>NO/YES/1,2/3</td>
</tr>
<tr>
<td>36700PMM/8HRS RAT, INHALATION</td>
<td>47200MG/KG RAT, ORAL</td>
<td></td>
</tr>
<tr>
<td>ISOPROPANOL</td>
<td>16000PMM/8HRS RAT, INHALATION</td>
<td></td>
</tr>
</tbody>
</table>

TABLE (A) CAS NUMBER  (B) LESS THAN WT  (C) TLV-TWA  (D) STEL  (E) CEILING  (F)  TOXICITY DATA (LD50/Route,LC50/Route)  (G) SARA 302/SARA 113/ SARA 311-312  CATEGORIES/CERCLA.  NE = not established.  NR = not required.  NO = no.  Color  Pigment: Mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black,  and other particulates not otherwise regulated in varying amounts depending  on color of product.

WHMIS CLASSIFICATION: B2 -- D1A -- D2B -- 8  HHNS/NPF CLASSIFICATION: HEALTH 3, FLAMMABILITY 3, REACTIVITY 0,  PERSONAL PROTECTION CODE G, NFFA FIRE FIGHTING PHASE 4

SECTION III - PHYSICAL DATA:

BOILING RANGE: 180°F(82°C)-355°F(179°C).  VAPOR DENSITY: Heavier than air.  EVAPORATION RATE: Slower than ether.  VOLATILE BY WEIGHT 17 % VOLATILE BY
PRODUCT: CARBOGUARD 850 PART B
Date: 11/08/99 Replaces 01/05/99

VOLUME: 33 %, PRODUCT WT/GAL: 13.4 LBS/U.S. GAL, 1.61 sp gr.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: FLASH POINT: 71°F (Setaflash) LEL 1.0 %
UL 12.7 %
OSHA-FLAMMABLE LIQUID/OSHA/CLASS IIB, DOT-PHSA.3, UN1261, PGII, CANADIAN TDGA:
PAINT.3,UN1261,PGII
EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog
UNUSUAL FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and will
accumulate. Vapors will form explosive concentrations with air. Vapors
travel long distances and will flashback. Use mechanical ventilation when
necessary to keep percent vapor below the "Lower Explosion Level" (LEL).
SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected
personnel. Use a NIOSH approved self-contained breathing unit and complete
body protection. Cool surrounding containers with water in case of fire
exposure.

SECTION V - HEALTH HAZARD DATA:

INHALATION: May cause allergic respiratory reaction, effects may be
permanent. Harmful if inhaled, may affect the brain or nervous system,
causing dizziness, headache or nausea. May cause nose and throat irritation.
May cause lung irritation.
CONTACT: May be harmful if absorbed through the skin. Can cause eye burns.
Can cause skin burns. Can cause allergic skin reaction.
NOTICE: Contains SILICA which can cause cancer. Risk of cancer depends on
duration and level of exposure. Reports have associated repeated and
prolonged occupational overexposure to solvents with permanent brain and
nervous system damage.
MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: If you have a condition
that could be aggravated by exposure to dust or organic vapors see a
physician prior to use.
PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.
EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.
BY INHALATION: Flush with water for 15 minutes.
BY SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and
clean before reuse.
INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult.
Use artificial respiration if not breathing. Get medical attention.
IF SWALLOWED: DO NOT INDUCE VOMITING! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.
HAZARDOUS POLYMIZATION: Will not occur under normal conditions.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and
unidentified organic compounds. Consider all smoke and fumes from burning
material as very hazardous. Welding, cutting or abrasive grinding can create
smoke and fumes. Do not breathe.
CONDITIONS TO AVOID: Heat, sparks, and open flames.
INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources.
Handling equipment must be grounded to prevent sparking. Evacuate the area
of unprotected personnel. Wear appropriate personal protection clothing and
equipment. Follow safe handling and use guidelines in Section VIII. Contain
and soak up residual with an absorbent (clay or sand). Take up absorbent
material and seal tightly for proper disposal. Dispose of in accordance with
local, state and federal regulations. Refer to Section II for SARA Title III
and CERCLA information.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below
exposure guidelines. (Section II). User should test and monitor exposure
levels to insure all personnel are below guidelines. If not sure or if not
able to monitor use MSHA/NIOSH approved supplied air respirator.
VENTILATION: Use explosion-proof ventilation when required to keep below
health exposure guidelines and lower Explosion Limit (LEL).
SKIN AND EYE PROTECTION: Recommend impervious gloves, clothing and safety
glasses with side shields or chemical goggles to avoid skin and eye contact.
If material penetrates to skin, change gloves and clothing.
HYGIENIC PRACTICES: Wash with soap and water before eating, drinking,
applying cosmetics, or using toilet facilities. Use of a hand cleaner is
recommended. Launder contaminated clothing before reuse. Leather shoes can
absorb and pass through hazardous materials. Check shoes carefully after
soaking before reuse.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat,
sparks, open flame, and strong oxidizing agents. Keep containers closed.
Store in cool, dry place with adequate ventilation. If pouring or
transferring materials, ground all containers and tools.
OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty
containers.

The information contained herein is, to the best of our knowledge and belief
accurate. However, since the conditions of handling and use are beyond our
control, we make no guarantee of results, and assume no liability for damages
incurred by use of this material. It is the responsibility of the user to
comply with all applicable federal, state, and local laws and regulations.
NEW JERSEY
Pennsylvania
Non-Hazardous Materials above 1 Percent:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>BENZYL ALCOHOL</td>
<td>100-51-5</td>
<td>10%</td>
</tr>
<tr>
<td>POLYMER SOLUTION</td>
<td>MIXTURE</td>
<td>5%</td>
</tr>
</tbody>
</table>

California

WARNING: This product contains a chemical(s) known to the State of California to cause cancer, and birth defects or other reproductive harm.
SECTION I - PRODUCT: CARBOGUARD 890 LT PART B (0983BINL)
Date: 11/17/99 Replaces 01/11/99
(aka CARBOLINE 890 LT PART B)
CHEMTRIC TRANSPORTATION EMERGENCY PHONE NO.: 800-424-9300
PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.: 412-681-6669

SECTION II - HAZARDOUS INGREDIENTS EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
<th>(D)</th>
<th>(E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>SILICA</td>
<td>14808-60-7</td>
<td>60%</td>
<td>0.1MG/M3</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>XYLENE</td>
<td>1330-20-7</td>
<td>10%</td>
<td>100 PPM</td>
<td>150 PPM</td>
<td>NE</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>100-41-4</td>
<td>5%</td>
<td>100 PPM</td>
<td>125 PPM</td>
<td>NE</td>
</tr>
<tr>
<td>TDMAF PHENOL</td>
<td>90-72-2</td>
<td>5%</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
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<tr>
<td>NONYL PHENOL</td>
<td>25154-52-3</td>
<td>5%</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>AROMATIC SOLVENT</td>
<td>64742-95-6</td>
<td>5%</td>
<td>25PPM</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>ISOHEXANOL</td>
<td>67-63-0</td>
<td>5%</td>
<td>400 PPM</td>
<td>500 PPM</td>
<td>NE</td>
</tr>
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SECTION II - HAZARDOUS INGREDIENTS ADDITIONAL DATA

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
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</thead>
<tbody>
<tr>
<td>SILICA</td>
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<td>(G)</td>
</tr>
<tr>
<td>XYLENE</td>
<td>4300MG/KG RAT.ORAL</td>
<td>NO/NO/NK/NO</td>
</tr>
<tr>
<td>ETHYL BENZENE</td>
<td>NOT AVAILABLE</td>
<td>NO/YES/1,2,3/</td>
</tr>
<tr>
<td>TDMAF PHENOL</td>
<td>2169 MG/KG ORAL</td>
<td>NO/NO</td>
</tr>
<tr>
<td>NONYL PHENOL</td>
<td>1620MG/KG ORAL 2140 MG/KG SKIN</td>
<td>NO/NO</td>
</tr>
<tr>
<td>AROMATIC SOLVENT</td>
<td>4700MG/KG RAT.ORAL</td>
<td>NO/YES/1/2/3</td>
</tr>
<tr>
<td>ISOHEXANOL</td>
<td>3670PPM/SERS RAT.INHALATION</td>
<td>NO/NO/3</td>
</tr>
</tbody>
</table>

TABLE (A) CAS NUMBER (B) LESS THAN WT (C) TLV-TWA (D) STEL (E) CEILING (F)
TOXICITY DATA (LD50/Route,LC50/Route) (G) SARA 302/SARA 313/SARA 311-312
CATEGORIES/CERCLA. NE = not established, NK = not required, NO = no. Color
Pigment Mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black,
and other particulates not otherwise regulated in varying amounts depending
on color of product.

WHMIS CLASSIFICATION: E2 -- D2A -- D2B

SECTION III - PHYSICAL DATA:

BOILING RANGE: 180°F(82°C)-355°F(179°C). VAPOUR DENSITY: Heavier than air.
EVAPORATION RATE: Slower than ether. VOLATILE BY WEIGHT 14 %. VOLATILE BY
VOLUME: 25 %. PRODUCT WT/GAL: 12.7 LBS/U.S.GAL. 1.33 sp gr.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: FLASH POINT: 71 F(21C) (Setaflash) LEL 1.0 %
UEL 12.7 %.
OSHA: Flammable Liquid/OSHA/CLASS IIB, DOT-PAINT, 3, UN1263, PGI2, CANADIAN TDI:
PAINT, 3, UN1263, PGI2
EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog.
FIRE AND EXPLOSION HAZARDS: Product contains less than 1% volatile components. The amount of vapors that could accumulate are minimal. However vapors are heavier than air and could travel long distances ignite and flashback. Eliminate all ignition sources. Keep away from sparks, open flames, and heat sources. All electrical equipment and installations should be made and grounded in accordance with the National Electrical Code. In areas where explosion hazards exist, workers should be required to use nonferrous tools and to wear conductive and non-sparking shoes.
SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected personnel. Use a NIOSH approved self-contained breathing unit and complete body protection. Cool surrounding containers with water in case of fire exposure.

SECTION V - HEALTH HAZARD DATA:

INHALATION: May cause allergic respiratory reaction, effects may be permanent. Harmful if inhaled, may affect the brain or nervous system, causing dizziness, headache or nausea. May cause nose and throat irritation. May cause lung irritation.
CONTACT: May be harmful if absorbed through the skin. May cause eye burns. May cause skin burns.
NOTICE: Contains SILICA which can cause cancer. Risk of cancer depends on duration and level of exposure. Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.
MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: If you have a condition that could be aggravated by exposure to dust or organic vapors see a physician prior to use.
PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.
EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.
EYE CONTACT: Flush with water for 15 minutes.
SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and clean before reuse.
INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult. Use artificial respiration if not breathing. Get medical attention.
IF SWALLOWED: DO NOT INDUCE VOMITING!! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.
HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe any fumes or smoke from these operations.
CONDITIONS TO AVOID: Heat, sparks, and open flames.
INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protective clothing and equipment. Follow safe handling and use guidelines in Section VIII. Contain and soak up residual with an absorbent (clay or sand). Take up absorbent material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section II for Sara Title III and CERCLA information.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below exposure guidelines. (Section II). User should test and monitor exposure levels to insure all personnel are below guidelines. If not sure or if not able to monitor use MSHA/NIOSH approved supplied air respirator. Follow all current OSHA requirements for respirator use.

VENTILATION: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

SKIN AND EYE PROTECTION: Recommend impervious gloves, clothing and safety glasses with side shields or chemical goggles to avoid skin and eye contact. If material penetrates to skin, change gloves and clothing. Hypersensitive persons should wear gloves or use protective cream.

HYGIENIC PRACTICES: Wash with soap and water before eating, drinking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and pass through hazardous materials. Check shoes carefully after soaking before reuse.

APPLICATION: Use only in accordance with Carboline application instructions, container label and Product Data Sheet.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat, sparks, open flame, and strong oxidizing agents. Keep containers closed. Store in cool, dry place with adequate ventilation. If pouring or transferring materials, ground all containers and tools.

OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty containers.

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.
PRODUCT: CARBOGUARD 890 LT PART B
Date: 11/17/99  Replaces 01/11/99

Carboline Company  330 Hanley Ind. Ct. St. Louis, MO 63144
PHONE NO. 314-644-1000  FOR INDUSTRIAL USE ONLY
NEW JERSEY

Table:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYAMIDE</td>
<td>MIXTURE</td>
<td>15%</td>
</tr>
<tr>
<td>BENZYL ALCOHOL</td>
<td>100-51-6</td>
<td>5%</td>
</tr>
<tr>
<td>POLYMER SOLUTION</td>
<td>MIXTURE</td>
<td>5%</td>
</tr>
</tbody>
</table>

WARNING: This product contains a chemical(s) known to the State of California to cause cancer, and birth defects or other reproductive harm.

PENNSYLVANIA

Non-Hazardous Materials above 1 Percent:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYAMIDE</td>
<td>MIXTURE</td>
<td>15%</td>
</tr>
<tr>
<td>BENZYL ALCOHOL</td>
<td>100-51-6</td>
<td>5%</td>
</tr>
<tr>
<td>POLYMER SOLUTION</td>
<td>MIXTURE</td>
<td>5%</td>
</tr>
</tbody>
</table>
**SECTION I - PRODUCT: CARBOCHEM compound 134HG PART A**

Date: 08/24/00  Replaces 03/11/00

CHEMTRAC TRANSPORTATION EMERGENCY PHONE No.: 800-424-9300
PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY No.: 412-581-6669

**SECTION II - HAZARDOUS INGREDIENTS & EXPOSURE LIMITS**

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
<th>(D)</th>
<th>(E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica</td>
<td>14808-66-7</td>
<td>25% 0.1mg/m³</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Color Pigment</td>
<td>MIXTURE</td>
<td>15% 3.5mg/m³</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Toluene</td>
<td>108-88-3</td>
<td>1%  50 PPM</td>
<td>150 PPM</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>Butyl Acetate</td>
<td>123-86-4</td>
<td>1%  150 PPM</td>
<td>200 PPM</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>Ethyl Benzene</td>
<td>100-41-4</td>
<td>5%  100 PPM</td>
<td>125 PPM</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>Dispersing Agent</td>
<td>MIXTURE</td>
<td>5%  NE</td>
<td>NE</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>Xylenes</td>
<td>1330-20-7</td>
<td>5%  100 PPM</td>
<td>150 PPM</td>
<td>NE</td>
<td></td>
</tr>
<tr>
<td>Aliphatic Diol</td>
<td>TS</td>
<td>5%  25 PPM</td>
<td>25 PPM</td>
<td>25 PPM</td>
<td></td>
</tr>
</tbody>
</table>

**HAZARDOUS INGREDIENTS & ADDITIONAL DATA**

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>(F)</th>
<th>(G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Silica</td>
<td>NOT AVAILABLE</td>
<td>NO/NO/NR/NO</td>
</tr>
<tr>
<td>Color Pigment</td>
<td>NOT AVAILABLE</td>
<td>NO/YES</td>
</tr>
<tr>
<td>Toluene</td>
<td>5.0 G/KG RAT ORAL, 14G/KG RABBIT DERMAL</td>
<td>NO/YES/1,2,3/</td>
</tr>
<tr>
<td>Butyl Acetate</td>
<td>7.4 G/KG RABBIT ORAL</td>
<td>NO/NO/1,2,3/</td>
</tr>
<tr>
<td>Ethyl Benzene</td>
<td>NOT AVAILABLE</td>
<td>NO/YES/1,2,3/</td>
</tr>
<tr>
<td>Dispersing Agent</td>
<td>NR</td>
<td>NO/YES</td>
</tr>
<tr>
<td>Xylenes</td>
<td>45000MG/KG RAT, ORAL</td>
<td>NO/YES/1,2,3/</td>
</tr>
<tr>
<td>Aliphatic Diol</td>
<td>NR</td>
<td>NO/NO/1/4/</td>
</tr>
</tbody>
</table>

**TABLE (A) CAS NUMBER (B) LESS THAN WT (C) TLV-TWA (D) STEL (E) CEILING (F)**

**TOXICITY DATA (LD50/ROUTE,LC50/ROUTE) (G) SARA 302/SARA 313/ SARA 311-312**

**CATEGORIES/CERCLA. NE = not established, NR = not required, NO = no. Color**

**Pigment Mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black,**

**and other particulates not otherwise regulated in varying amounts depending on**

**color of product.**

**WHMIS CLASSIFICATION: BZ -- D2A -- D2B**

**NMIS/NFPA CLASSIFICATION: HEALTH 3, FLAMMABILITY 3, REACTIVITY 1,**

**PERSONAL PROTECTION CODE G, NFPA FIRE FIGHTING PHASE 4**

**SECTION III - PHYSICAL DATA:**

**BOILING RANGE: 232°F(111°C)-284°F(140°C). VAPOR DENSITY: Heavier than air.**

**EVAPORATION RATE: Slower than ether. VOLATILE BY WEIGHT 23 %. VOLATILE BY**

**VOLUME: 34 %. PRODUCT WT/GAL: 10.6 LBS/U.S.GAL. 1.28 sp gr.**
SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: Flash Point: 50°F (10°C) (Set aflash) LEL 1.0 %
UEL 7.5 %
OSHA-FLAMMABLE LIQUID/OSHA/CLASS 3b, DCT-PAINT, 3, UN1263, PIGI, CANADIAN TDGA:
PAINT, 3, UN1263, PIGI

EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog.

FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and will accumulate.
Vapors will form explosive concentrations with air. Vapors travel long
distances and will flashback. Use mechanical ventilation when necessary to
keep percent vapor below the "Lower Explosion Level" (LEL). Eliminate all
ignition sources. Keep away from sparks, open flames and heat sources. All
electric equipment and installations should be made and grounded in
accordance with the National Electrical Code. In areas where explosion
hazards exist, workers should be required to use nonferrous tools and to wear
conductive and non-sparking shoes.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected
personnel. Use a NIOSH approved self-contained breathing unit and complete
body protection. Cool surrounding containers with water in case of fire
exposure.

SECTION V - HEALTH HAZARD DATA:

INHALATION: Harmful if inhaled, may affect the brain or nervous system,
causing dizziness, headache or nausea. May cause nose and throat irritation.
CONTACT: Can cause eye irritation. May cause skin irritation. May cause
allergic skin reaction.
NOTICE: Contains SILICA which can cause cancer. Risk of cancer depends on
duration and level of exposure. Reports have associated repeated and
prolonged occupational overexposure to solvents with permanent brain and
nervous system damage.

MEDICAL CONDITIONS PRONE TO AGGRAVATION BY EXPOSURE: If you have a condition
that could be aggravated by exposure to dust or organic vapors see a
physician prior to use.

PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.
EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.
EYE CONTACT: Flush with water for 15 minutes.
SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and
clean before reuse.

INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult.
Use artificial respiration if not breathing. Get medical attention.
IF SWALLOWED: DO NOT INDUCE VOMITING!! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.
HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.
HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and
unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe any fumes or smoke from these operations.
CONDITIONS TO AVOID: Heat, sparks, and open flames.
INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources.
Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and equipment. Follow safe handling and use guidelines in Section VIII. Contain and soak up residual with an absorbent (clay or sand). Take up absorbent material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section II for Sara Title III and CERCLA information.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below exposure guidelines. (Section II). User should test and monitor exposure levels to ensure all personnel are below guidelines. If not sure, or not able to monitor, use MSHA/NIOSH approved supplied air respirator. Follow all current OSHA requirements for respirator use.
VENTILATION: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).
SKIN AND EYE PROTECTION: Recommend impervious gloves, clothing and safety glasses with side shields or chemical goggles to avoid skin and eye contact. If material penetrates to skin, change gloves and clothing. Hypersensitive persons should wear gloves or use protective cream.
HYGIENIC PRACTICES: Wash with soap and water before eating, drinking, applying cosmetics, or using toilet facilities. Use of a hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and pass through hazardous materials. Check shoes carefully after soaking before reuse.
APPLICATION: Use only in accordance with Carboline application instructions, container label and Product Data Sheet.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat, sparks, open flames, and strong oxidizing agents. Keep containers closed.
Store in cool, dry place with adequate ventilation. If pouring or transferring materials, ground all containers and tools.
OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty containers.
The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Carboline Company  350 Hanley Ind. Ct. St. Louis, MO 63144
PHONE NO. 314-644-1000 FOR INDUSTRIAL USE ONLY
SPECIFIC STATE REGULATORY INFORMATION

NEW JERSEY

Non-Hazardous Materials above 1 Percent:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Pet</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACRYLIC COPOLYMER</td>
<td>33%</td>
<td></td>
</tr>
<tr>
<td>ACRYLIC COPOLYMER</td>
<td>MIXTURE</td>
<td>10%</td>
</tr>
</tbody>
</table>

CALIFORNIA

WARNING: This product contains a chemical(s) known to the State of California to cause cancer, and birth defects or other reproductive harm.
SECTION I  - PRODUCT: URETHANE CONVERTER 811  
Date:  04/10/00  Replaces 11/13/97

CHEMTREC TRANSPORTATION EMERGENCY PHONE NO.: 800-424-9300
PITTSBURGH POISON CONTROL CENTER HEALTH EMERGENCY NO.: 412-661-6669

SECTION II - HAZARDOUS INGREDIENTS  EXPOSURE LIMITS

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>(A)</th>
<th>(B)</th>
<th>(C)</th>
<th>(D)</th>
<th>(E)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYURETHANE HDI</td>
<td>MIXTURE</td>
<td>90%</td>
<td>0.005PPM</td>
<td>0.02PPM</td>
<td>NE</td>
</tr>
<tr>
<td>AROMATIC SOLVENT</td>
<td>64742-95-6</td>
<td>5%</td>
<td>25PPM</td>
<td>NE</td>
<td>NE</td>
</tr>
<tr>
<td>BUTYL ACETATE</td>
<td>123-86-4</td>
<td>5%</td>
<td>150PPM</td>
<td>200PPM</td>
<td>NE</td>
</tr>
<tr>
<td>HDI ISOCYANATE</td>
<td>822-06-0</td>
<td>2%</td>
<td>0.005PPM</td>
<td>0.02PPM</td>
<td>NE</td>
</tr>
</tbody>
</table>

HAZARDOUS INGREDIENTS  ADDITIONAL DATA

<table>
<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>(F)</th>
<th>(G)</th>
</tr>
</thead>
<tbody>
<tr>
<td>POLYURETHANE HDI</td>
<td>&gt;10000 MG/KG RAT ORAL</td>
<td>NO/NO/1.2.3.5</td>
</tr>
<tr>
<td>AROMATIC SOLVENT</td>
<td>137-1150 MG/M3 4 HOURS; RAT</td>
<td>NO/YES/1.2/3</td>
</tr>
<tr>
<td>BUTYL ACETATE</td>
<td>47000MG/KG RAT ORAL</td>
<td>NO/NO/1.2.3</td>
</tr>
<tr>
<td>HDI ISOCYANATE</td>
<td>7.4 G/KG RABBIT ORAL</td>
<td>NO/NO/1.2.3</td>
</tr>
</tbody>
</table>

TABLE (A) CAS NUMBER  (B) LESS THAN WT  (C) TLV-TWA  (D) STEL  (E) CEILING  (F)  (G) SARA 102/SARA 113/ SARA 311-312 CATEGORIES/CERCLA. NE = not established, NR = not required, NO = no. Color Pigment mixture may contain Iron Oxides, Titanium Dioxide, Carbon Black, and other particulates not otherwise regulated in varying amounts depending on color of product.

WHMIS CLASSIFICATION: B3  --  D2A  --  D2B
PERSONAL PROTECTION CODE G, NFPA FIRE FIGHTING PHASE 4

SECTION III - PHYSICAL DATA:

EVAPORATION RATE: Slower than ether. VOLATILE BY WEIGHT 10 %. VOLATILE BY VOLUME: 11 %. PRODUCT WT/GAL: 9.3 LBS/U.S.GAL. 1.12 sp gr.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA:

FLAMMABILITY CLASSIFICATION: FLASH POINT: 106 F (41°C) (Setasflash) LEL 1.4 %
OSHA-COMBUSTIBLE/LIQUID/OSHA/CLASS/I, DOT-PAINT, 3, UN1263, PGIII, CANADIAN
TDGA: PAINT, 3, UN1263, PGIII
EXTINGUISHING MEDIA: Dry Chemical, Foam, Carbon Dioxide, Water Fog.
FIRE AND EXPLOSION HAZARDS: Vapors are heavier than air and will accumulate. Vapors will form explosive concentrations with air. Vapors travel long distances and will flashback. Use mechanical ventilation when necessary to
keep percent vapor below the "Lower Explosion Level" (LEL). Eliminate all ignition sources. Keep away from sparks, open flames and heat sources. All electric equipment and installations should be made and grounded in accordance with the National Electrical Code. In areas where explosion hazards exist, workers should be required to use nonferrous tools and to wear conductive and non-sparking shoes.

SPECIAL FIRE FIGHTING PROCEDURES: Evacuate hazard area of unprotected personnel. Use a NIOSH approved self-contained breathing unit and complete body protection. Cool surrounding containers with water in case of fire exposure.

SECTION V - HEALTH HAZARD DATA:

INHALATION: Harmful if inhaled, may affect the brain or nervous system, causing dizziness, headache or nausea. May cause nose and throat irritation. May cause lung irritation. Contains HEXAMETHYLENE DIISOCYANATE which may cause allergic respiratory reaction, effects may be permanent.

CONTACT: May cause eye irritation. May cause skin irritation. May cause allergic skin reaction.

NOTICE: Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.

MEDICAL CONDITIONS PRIOR TO AGgravation BY EXPOSURE: If sensitized to isocyanates or other chemicals do not use. See a physician if a medical condition exists.

PRIMARY ROUTE(S) OF ENTRY: Inhalation, Dermal, Ingestion.

EMERGENCY FIRST AID PROCEDURES: When exposed always get medical attention.

EYE CONTACT: Flush with water for 15 minutes.

SKIN CONTACT: Wash with soap and water. Remove contaminated clothing and clean before reuse.

INHALATION: Remove to fresh air. Provide oxygen if breathing is difficult. Use artificial respiration if not breathing. Get medical attention.

IF SWALLOWED: DO NOT INDUCE VOMITING! Always get medical attention.

SECTION VI - REACTIVITY DATA:

STABILITY: This product is stable under normal storage conditions.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, nitrogen oxides, and unidentified organic compounds. Consider all smoke and fumes from burning material as very hazardous. Welding, cutting or abrasive grinding can create smoke and fumes. Do not breathe any fumes or smoke from these operations.

CONDITIONS TO AVOID: Heat, sparks, and open flames.

INCOMPATIBILITY: Avoid contact with strong oxidizing agents.

SECTION VII - SPILL OR LEAK PROCEDURES:

STEPS TO BE TAKEN IN CASE OF SPILL: Eliminate all ignition sources. Handling equipment must be grounded to prevent sparking. Evacuate the area of unprotected personnel. Wear appropriate personal protection clothing and
equipment. Follow safe handling and use guidelines in Section VIII. Contain and soak up residual with an absorbent (clay or sand). Take up absorbent material and seal tightly for proper disposal. Dispose of in accordance with local, state and federal regulations. Refer to Section II for SARA Title III and CERCLA information.

SECTION VIII - SAFE HANDLING AND USE INFORMATION:

RESPIRATORY PROTECTION: Use only with ventilation to keep levels below exposure guidelines. (Section II). User should test and monitor exposure levels to ensure all personnel are below guidelines. If not sure or if not able to monitor, use N95/NIOSH approved supplied air respirator. Follow all current OSHA requirements for respirator use.

VENTILATION: Use explosion-proof ventilation when required to keep below health exposure guidelines and Lower Explosion Limit (LEL).

SKIN AND EYE PROTECTION: Recommend impervious gloves, clothing and safety glasses with side shields or chemical goggles to avoid skin and eye contact. If material penetrates the skin, change gloves and clothing. Hypersensitive persons should wear gloves or use protective cream.

HYGIENIC PRACTICES: Wash with soap and water before eating, drinking, applying cosmetics, or using toilet facilities. Use of hand cleaner is recommended. Launder contaminated clothing before reuse. Leather shoes can absorb and pass through hazardous materials. Check shoes carefully after soaking before reuse.

APPLICATION: Use only in accordance with Carboline application instructions, container label and Product Data Sheet.

SECTION IX - SPECIAL PRECAUTIONS:

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Keep away from heat, sparks, open flame, and strong oxidising agents. Keep containers closed. Store in cool, dry place with adequate ventilation. If pouring or transferring materials, ground all containers and tools.

OTHER PRECAUTIONS: Do not weld, heat, cut or drill on full or empty containers.

The information contained herein is, to the best of our knowledge and belief accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by use of this material. It is the responsibility of the user to comply with all applicable federal, state, and local laws and regulations.

Carboline Company 150 Hanley Ind. Ct. St. Louis, MO 63144
PHONE NO. 314-644-1000 FOR INDUSTRIAL USE ONLY
SPECIFIC STATE REGULATORY INFORMATION

NEW JERSEY

Non-Hazardous Materials above 1 Percent:

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS</th>
<th>Pct</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

No materials meet this criteria

CALIFORNIA

WARNING: This product contains a chemical(s) known to the State of California to cause cancer, and birth defects or other reproductive harm.
MSDS for Nelson Nameplate Ink
DATE OF LAST CHANGE: 07/01/98

MANUFACTURER’S NAME: IR CHICAGO
1125 W. NORTH BRANCH ST.
CHICAGO
IL 60622 USA

DATE PRINTED: 11/04/99

SECTION 1 -- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

TRADE NAME...: SV SERIES GLOSS VINYL SCREEN INK
PRODUCT CLASS...: SCREEN INK
INK SERIES...: SV

------ Item Description ------ WT VOC VOC % VOC WT VOC VOC % VOC
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**GENERAL HEALTH EFFECTS**

The following information has been developed based upon using the product as intended by the manufacturer. The potential health effects of this product are based on the hazards of its components. The use of this product in combination with other products may produce synergistic (additive) health effects. Cautionary labeling and material safety data sheets of all materials used with this product should be reviewed before use.

- **Eye contact with liquid, vapor or mist** may cause moderate to severe irritation, including burning, tearing, redness or swelling and reversible eye damage.

- **Skin**
  - Repeated or prolonged overexposure may cause skin irritation or dermatitis. Symptoms may include dryness, chapping and redness. Toxic and may be harmful if absorbed through the skin.

- **Inhalation**
  - Inhalation may cause respiratory tract irritation. Symptoms may include headaches, nausea, dizziness and intoxication.

- **Ingestion**
  - Ingestion may cause gastrointestinal tract irritation. Symptoms may include abdominal pain, nausea, vomiting and diarrhea.

- **Chronic Effects/Target Organs**
  - Reports have associated repeated and prolonged occupational exposure to solvents with permanent brain and nervous system damage. Intentional misuse by deliberately concentrating and inhaling the contents may be harmful or fatal.

- **Animal Studies**
  - Isophorone is a suspect carcinogen in lab animals. Ethyl 3-ethoxypropionate (EEP) has been suggested, after overexposure, 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. EEP has been shown to cause harm to the fetus in laboratory animal studies. Harm to the fetus occurs at low exposure levels that harm the pregnant animal. The relevance of these findings to humans is uncertain.
  - Diisocynne alcohol has been found to cause kidney and liver injury in blood disorders in lab animals. For animal studies, reference TSCA Section 4 Test Rule Results or contact the manufacturer for further details.

- **Medical Conditions Aggravated by Exposure**
  - Pregnant women and persons with pre-existing health disorders should consult their physician before using this product.
  - Repeated and prolonged overexposure and/or individual sensitivity may increase the potential for and degree of adverse health effects. See Section 2 "Hazard Identification" for effects of certain hazardous ingredients.

<table>
<thead>
<tr>
<th>ROUTES OF EXPOSURE</th>
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<tr>
<td>Primary exposure route: Inhalation-Dermal (Contact/Inhalation)</td>
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</table>
EYES
After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. If irritation persists have eyes examined and tested by medical personnel.

INHALATION
Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention if breathing difficulty is experienced.

INGESTION
If swallowed, do not induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

OTHER COMMENTS
Not Applicable

SECTION 5 -- FIRE FIGHTING MEASURES

FLASH POINT
150 Degrees - 160 Degrees Fahrenheit (SETA Flash)

GHS FLAMMABILITY CLASSIFICATION (UNPA)
Class IIIA Combustible Liquid

FLAMMABLE LIMITS (LEL-LOWER EXPLOSIVE LIMIT)
0.81 volume in air

EXTINGUISHING MEDIA
Foam-CO2-Dry Chemical-Water Spray

FIRE AND EXPLOSION HAZARDS
Isolate from heat, electrical equipment, sparks, and open flame. Keep containers tightly closed. Vapors may be heavier than air and can travel to a source of ignition then flash back. Closed containers may explode when exposed to extreme heat.

FIRE FIGHTING EQUIPMENT
Full protective equipment including self-contained breathing apparatus (SCBA) is recommended to protect firefighters.

SPECIAL FIRE FIGHTING PROCEDURES
Water may be ineffective but may be used to cool containers. Fumes released on burning may be toxic and dangerous.

SECTION 6 -- ACCIDENTAL RELEASE MEASURES

RELEASE MANAGEMENT MEASURES
Remove all sources of ignition (flames, hot surfaces and electrical, static or frictional sparks). Avoid contact or breathing vapors. Ventilate area. Contain release and remove with inert absorbent. Use non-sparking tools to place material in appropriate container for disposal. The National Response Center (800-424-8802) and local authorities should be contacted for any reportable spill/release.

SECTION 7 -- HANDLING AND STORAGE

HANDLING AND STORAGE METHODS
Use in a well ventilated area. Follow all MSDS/label precautions even after container is emptied; container may retain product residues. Store in closed containers in cool, dry, well ventilated area away from sources of ignition. Keep containers closed when not in use. Smoke in designated areas only. Avoid prolonged or repeated overexposure to this product. Keep out of reach of children. Follow label directions carefully. Do not take internally. Harmful or fatal if swallowed.

SECTION 8 -- EXPOSURE CONTROLS, PERSONAL PROTECTION

RESPIRATORY PROTECTION
If concentrations of hazardous ingredients exceed exposure limits listed in Section 2 an appropriate NIOSH (National Institute for Occupational Safety and Health) approved respirator with organic vapor cartridge should be used. If material is handled under mist, spray or dust forming conditions, a P100 (99.97% efficiency) filter should be used in addition to the organic vapor cartridge. If no exposure limits are listed in Section 2, follow general safety guidelines in 29 CFR 1910.134 Respiratory Protection or other applicable respiratory standard.

SKIN PROTECTION
Use neoprene, nitrile or other gloves resistant to chemicals listed in Section 2. Contact a reputable safety supply company.
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for appropriate gloves. Solvent resistant aprons are recommended. Prevent prolonged skin contact with contaminated clothing.

FOR PROTECTION
Use ANSI (American National Standards Institute) approved safety glasses, face shield or splash proof goggles to prevent eye contact. Contact a reputable safety supply company for appropriate eye protection. The availability of an eye wash is highly recommended.

EXPOSURE GUIDELINES
See Section 2 "Composition, Information on Ingredients" for occupational exposure limits. Excessive concentrations or nuisance dusts or particulates not otherwise classified (PNDC) or regulated (PNRS) may reduce visibility and cause unpleasant deposits in the eyes, ears, and nasal passages. The TLV and PEL has been established for all non-toxic nuisance dusts that are not otherwise classified and refers to both organic and inorganic dusts. Exposure or generation of these dusts is not anticipated during normal printing operations. The use of dry pigments and powders, grinding or seeding of printed products may generate quantities of these particulates. Refer to Section 2 Composition, Information on Ingredients for exposure limits.

HYGIENIC PRACTICES
Wash with soap and water before eating, smoking or using toilet facilities. Separately wash or discard clothing and footwear before reuse. NEVER try to remove ink from the skin by using solvents or thinner. Such action is likely to increase the possibility of undesirable effects. Remove contaminated clothing to prevent prolonged skin contact.

ENGINEERING CONTROLS
Use applicable engineering controls, work practices and personal protective equipment to ensure all concentrations are kept below the exposure limits listed in Section 2.

OTHER PROTECTION
Not Applicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

**

APPEARANCE:
Viscous liquid

OPM:
Characteristic

PHYSICAL STATE:
Liquid

pH
Not applicable

VAPOR PRESSURE
See Section 2 for individual ingredients.

VAPOR DENSITY
Heavier than air

BOILING POINT
Greater than 300 degrees Fahrenheit

FREEZING POINT
Not available

SOLUBILITY IN WATER
Not tested

EVAPORATION RATE
Slower than ether

VISCOUSITY
Greater than water

PERCENT VOLATILE BY VOLUME: SEE SECTION ONE

WEIGHT PER GALLON: SEE SECTION ONE

VIR: SEE SECTION ONE

CHEMICALLY REACTIVE
Yes
CHEMICAL STABILITY
Stable

CONDITIONS TO AVOID
Avoid excessive heat, ignition sources, sparks and open flame.

INCOMPATIBILITY WITH OTHER MATERIALS
Strong acids/bases, oxidizing/reducing agents and reactive chemicals.

HAZARDOUS DECOMPOSITION PRODUCTS
May produce hazardous fumes when heated to decomposition e.g. carbon monoxide, carbon dioxide and other noxious gases.

HAZARDOUS POLYMERIZATION
Not anticipated during normal printing and storage conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

EXPERIMENTAL TOXICITY DATA
Experimental toxicity data on diacetyl alcohol has given the following results: Intraperitoneal LD50 Mouse: 913 mg/kg. Oral LD50 Rat: 4 g/kg; Dermal LD50 Rabbit: 13.6 g/kg.

SECTION 12: ECOLOGICAL INFORMATION

ECOTOXICITY
No Data Available

ENVIRONMENTAL FATE
No Data Available

SECTION 13: DISPOSAL CONSIDERATIONS

DISPOSAL METHODS
Dispose of in accordance with applicable local, county, state, provincial and federal regulations. Empty containers may retain hazardous properties. Empty containers should be disposed of in an environmentally safe manner in accordance with applicable regulations.

SECTION 14: TRANSPORT INFORMATION

TRANSPORT INFORMATION
Not regulated. The product(s) described by this Material Safety Data Sheet do not meet the definition of nor are they classified as a hazardous material/dangerous good as defined by the United States Department of Transportation (DOT) of the International Civil Aviation Organization (ICAO), the International Maritime Organization (IMO) or the Canadian Transportation of Dangerous Goods Act (TDG).

SECTION 15: REGULATORY INFORMATION

SARA TITLE III 313 INFORMATION
See Section 2 "Composition, Information on Ingredients" for applicable chemicals.

TOXIC SUBSTANCES CONTROL ACT STATUS
All ingredients in Section 2 are listed on the U.S. Environmental Protection Agency's Toxic Substances Control Act (TSCA) Inventory and the Canadian Domestic Substance List.

OTHER REGULATORY INFORMATION
Not Applicable

SECTION 16: OTHER INFORMATION

DISCLOSURE
The information and recommendations contained herein are based upon data believed to be correct. However, no guarantee or warranty of any kind express or implied is made with respect to the information contained herein. The data in this MSDS relates only to the specific material designated herein and does not apply to use in combination with any other material or process.
DEFINITIONS

AGIHN: American Conference of Governmental Industrial Hygienists
AIHA: American Industrial Hygiene Association
CEILING: (TLV-Ceiling and PEL Ceiling Limit) The ceiling exposure limit or concentration not to be exceeded for even brief times.
DOT: Department of Transportation
HMIS: The Hazardous Materials Identification System (HMIS) developed by the National Paint and Coatings Association (NPMA) to provide information on the acute health hazards, reactivity and flammability encountered in the workplace at room temperatures.
IARC: International Agency for Research on Cancer
NFPA: National Fire Protection Association
NTP: National Toxicology Program
STEL: Short-Term Exposure Limit: ACGIH terminology for the short-term exposure limit or maximum concentration for a continuous exposure period of 15 minutes.
TLV: Threshold Limit Value. A term ACGIH uses to express the airborne concentration of a material to which most workers can be exposed during a normal daily and weekly work schedule without adverse effects.
TWA: Time-Weighted Average
VOC: Volatile Organic Compound