

HS BINDER, B COMPONENT

SECTION 2 - INGREDIENTS

| Num | % | CAS Number and Chemical Name | |
|-----|--------|------------------------------|-------------------------|
| 1. | >40.00 | 100-51-6 | BENZYL ALCOHOL |
| 2. | <30.00 | 2855-13-2 | ISOPHORONEDIAMINE (IPD) |

The remaining components are trade secret.

OSHA (ACGIH) EXPOSURE LIMITS

| | | TWA | | STEL | | CEILING | |
|----|-------|-----|-------|------|-------|---------|-------|
| | | ppm | mg/m3 | ppm | mg/m3 | ppm | mg/m3 |
| 1. | OSHA | N/E | N/E | N/E | N/E | N/E | N/E |
| | ACGIH | N/E | N/E | N/E | N/E | N/E | N/E |
| 2. | OSHA | N/E | N/E | N/E | N/E | N/E | N/E |
| | ACGIH | N/E | N/E | N/E | N/E | N/E | N/E |

N/E = Not Established.

SECTION 3 - HEALTH HAZARDS

ROUTES OF EXPOSURE

Eye Contact
Skin Contact
Ingestion
Inhalation
Skin Absorption

EXPOSURE STANDARDS

No standards established for the product. Maintain air contaminant concentrations in the workplace at the lowest feasible levels.

HEALTH HAZARDS

Corrosive to eyes.
Corrosive to respiratory system.
Corrosive to skin.
Severe eye irritant.
Severe respiratory tract irritant.
Severe skin irritant.
May cause skin sensitization.

TARGET ORGANS

Eye
Skin
Respiratory system

SIGNS AND SYMPTOMS OF EXPOSURE (Acute effects)

Product vapor in low concentrations can cause lacrimation, conjunctivitis and corneal edema when absorbed into the tissue of the eye from the atmosphere. Corneal edema may give rise to a

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perception of "blue haze" or "fog" around lights. The effect is transient and has no known residual effect. Burns of the eye may cause blindness. Contact with the skin may cause dryness (defatting), itching and/or rash. Contact of undiluted product with the eyes or skin quickly causes severe irritation and pain and may cause burns, necrosis and permanent injury.

Inhalation of vapors may severely damage contacted tissue and produce scarring. Inhalation of aerosols and mists may severely damage contacted tissue and produce scarring.

Risk of exposure to hazardous concentrations of vapor under normal working conditions in a well ventilated space is minimal. However, conditions such as spraying, or sudden release of hot liquid, which generate an aerosol, mists or fog should be avoided.

Product is absorbed through the skin and may cause nausea, headache and general discomfort.

SIGNS AND SYMPTOMS OF EXPOSURE (Possible Longer Term Effects)

Repeated and/or prolonged exposure may cause allergic reaction/sensitization.

Repeated and/or prolonged exposures may result in: adverse respiratory effects (such as cough, tightness of chest or shortness of breath), adverse eye effects (such as conjunctivitis or corneal damage), adverse skin effects (such as defatting, rash, or irritation), adverse skin effects (such as rash, irritation or corrosion).

Effects from inhalation of vapors may be delayed. Dryness of nasal passages may be experienced when material is inhaled over a long period of time. Repeated and/or prolonged exposure to low concentrations of vapor may cause: sore throat which are transient.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Asthma
Chronic respiratory disease (e.g. Bronchitis, Emphysema)
Eye disease
Skin disorders and Allergies

CARCINOGENS UNDER OSHA, ACGIH, NTP, IARC, OTHER

This product contains no carcinogens in concentrations of 0.1 percent or greater.

SECTION 4 - FIRST AID

EYE CONTACT

Hold eyelids apart and immediately flush eyes with plenty of water for at least 15 minutes. Seek medical advice.

SKIN CONTACT

Remove product and immediately flush affected area with water for at least 15 minutes. Remove contaminated clothing and shoes. Destroy contaminated leather apparel. Cover the affected area with a sterile dressing or clean sheeting and transport for medical care. Do not apply greases or ointments. Control shock, if present. Launder contaminated clothing prior to reuse.

INHALATION

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Move patient to fresh air. If breathing has stopped or is labored give assisted respiration (e.g. mouth-to-mouth). Supplemental oxygen may be indicated. Prevent aspiration of vomit. Turn victim's head to the side. Seek medical advice.

INGESTION

In the event of ingestion, administer 3-4 glasses of milk or water. Do not induce vomiting. Seek medical advice.

SECTION 5 - FIRE AND EXPLOSION DATA

FLASH POINT (closed cup) >93.33 C (>199.99 F)

UPPER EXPLOSION LIMIT (UEL) No Data

LOWER EXPLOSION LIMIT (LEL) No Data

AUTOIGNITION TEMPERATURE No Data

FIRE HAZARD CLASSIFICATION (OSHA/NFPA)

Class IIIB

EXTINGUISHING MEDIA

Ignition will give rise to a Class B fire. In case of large fire use: water spray, alcohol foam. In case of small fire use: carbon dioxide (CO₂), dry chemical, dry sand or limestone.

SPECIAL FIRE FIGHTING PROCEDURES

A face shield should be worn. Firefighters should wear butyl rubber boots, gloves, and body suit and a self-contained breathing apparatus.

Retain expended liquids from fire fighting for later disposal.

UNUSUAL FIRE AND EXPLOSION HAZARDS

May generate toxic or irritating combustion products.

Contact of liquid with skin must be prevented.

Sudden reaction and fire may result if product is mixed with an oxidizing agent.

May generate carbon monoxide gas.

May generate toxic nitrogen oxide gases. May generate ammonia gas.

Personnel in vicinity and downwind should be evacuated.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

CONTAINMENT TECHNIQUES (Removal of ignition sources, diking etc)

Stop the leak, if possible. Ventilate the space involved. Reduce vapor spreading with a water spray. Shut off or remove all ignition sources. Construct a dike to prevent spreading (includes molten liquids until they freeze).

CLEAN-UP PROCEDURES

If recovery is not feasible, admix with dry soil, sand or non-reactive absorbent and place in an appropriate chemical waste container. Transfer to containers by suction, preparatory for later disposal. Flush area with water spray. Clean-up personnel

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must be equipped with self contained breathing apparatus and butyl rubber protective clothing. For large spills, recover spilled material with a vacuum truck.

OTHER EMERGENCY ADVICE

Open enclosed spaces to outside atmosphere. Wear protective clothing, boots, gloves, and eye protection.

SECTION 7 - HANDLING AND STORAGE

STORAGE

Keep away from: acids, oxidizers. Keep in cool, dry, ventilated storage and in closed containers. Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. Do not store in reactive metal containers.

HANDLING

Avoid contact with skin or eyes. Avoid breathing of vapors. Handle in well ventilated work space. When handling, do not eat, drink, or smoke.

OTHER PRECAUTIONS

Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations (e.g. OSHA).

SECTION 8 - PERSONAL PROTECTION / EXPOSURE CONTROLS

EYE PROTECTION

Full face shield with goggles underneath.

HAND PROTECTION

Neoprene rubber gloves. Impermeable gloves. Cuffed butyl rubber gloves. Nitrile rubber gloves.

RESPIRATORY PROTECTION

Not required under normal conditions in a well-ventilated workplace. An organic vapor respirator National Institute for Occupational Safety and Health (NIOSH) approved for organic vapors is recommended under emergency conditions.

PROTECTIVE CLOTHING

Impervious clothing. Slicker Suit. Rubber boots. Full rubber suit (rain gear). Butyl or latex protective clothing.

ENGINEERING CONTROLS

No specific controls needed.

WORK AND HYGIENIC PRACTICES

Provide readily accessible eye wash stations and safety showers. Wash at the end of each work shift and before eating, smoking or using the toilet. Promptly remove clothing that becomes

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contaminated. Use appropriate hand and skin lotions to protect the skin. Discard contaminated leather articles.

SECTION 9 - TYPICAL PHYSICAL AND CHEMICAL PROPERTIES

| | |
|-------------------------------------|---------------------|
| PHYSICAL FORM | Mobile liquid |
| COLOR | Colorless |
| ODOR | Irritating |
| pH | 9.00 |
| VAPOR PRESSURE (mm Hg at 21C (70F)) | <10.33835 |
| VAPOR DENSITY (Air = 1) | No Data |
| BOILING POINT | 205.00 C (401.00 F) |
| MELTING POINT | No Data |
| SOLUBILITY IN WATER | <1.00% |
| SPECIFIC GRAVITY (Water = 1) | 1.03 |
| MOLECULAR WEIGHT | Mixture |

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY

Stable

CONDITIONS TO AVOID (if unstable)

Not applicable

INCOMPATIBILITY (Materials to Avoid)

Mineral acids (i.e. sulfuric, phosphoric, etc.). Organic acids (i.e. acetic acid, citric acid etc.). Oxidizing Agents (i.e. perchlorates, nitrates etc.). Reactive metals (i.e. sodium, calcium, zinc etc.). Sodium or Calcium Hypochlorite. Product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Materials reactive with hydroxyl compounds. A reaction accompanied by large heat release occurs when the product is mixed with acids. Heat generated may be sufficient to cause vigorous boiling creating a hazard due to splashing or splattering of hot material.

HAZARDOUS DECOMPOSITION PRODUCTS (from burning, heating, or reaction with other materials).

Nitrogen oxide can react with water vapors to form corrosive nitric acid (TLV=2 ppm). Carbon Monoxide in a fire. Carbon Dioxide in a fire. Ammonia when heated. Nitrogen Oxides in a fire. Irritating and toxic fumes at elevated temperatures. Nitric acid in a fire. Aldehydes. The oxides of nitrogen gases (except nitrous oxide) emitted on decomposition are highly toxic.

HAZARDOUS POLYMERIZATION

Will not occur

CONDITIONS TO AVOID (if polymerization may occur)

Not applicable

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TOXIC SUBSTANCES CONTROL ACT (TSCA)-

All components are included in the EPA Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

OSHA Hazard Communication Standard (29CFR1910.1200) hazard class(es)
Corrosive. Sensitizer.

EPA SARA Title III Section 312 (40CFR370) hazard class
Immediate Health Hazard. Delayed Health Hazard.

EPA SARA Title III Section 313 (40CFR372) toxic chemicals above "de minimis" level are
None

STATE REGULATIONS

PROPOSITION 65 SUBSTANCES (component(s) known to the State of California to cause cancer and/or reproductive toxicity and subject to warning and discharge requirements under the "Safe Drinking Water and Toxic Enforcement Act of 1986")
None

NEW JERSEY TRADE SECRET REGISTRY NUMBER(S)
05995500-(C1618U)

SECTION 16 - INTERNATIONAL REGULATIONS

CANADA

DSL

Included on Inventory.

WHMIS HAZARD CLASSIFICATION

Class D Division 2B, Class E Corrosive,
ISOPHORONEDIAMINE (IPD)

BENZYL ALCOHOL

WHMIS SYMBOLS

Test tube/hand, Stylized T,

END OF DOCUMENT