1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ANCAMINE ® 2432 Curing Agent

Product Use Description : Curing Agent

Company : Air Products and Chemicals, Inc
7201 Hamilton Blvd.
Allentown, PA 18195-1501

Telephone : 1-800-345-3148 Chemicals
1-800-752-1597 Gases and Electronic Chemicals

Emergency telephone number : 800-523-9374 USA
01-610-481-7711 International

2. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Concentration (Weight)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Benzyl alcohol</td>
<td>100-51-6</td>
<td>&lt; 45 %</td>
</tr>
<tr>
<td>Benzene-1,3-dimethaneamine (MXDA)</td>
<td>1477-55-0</td>
<td>&lt; 20 %</td>
</tr>
</tbody>
</table>

CHEMICAL FAMILY: Aliphatic Amines.

3. HAZARDS IDENTIFICATION

Emergency Overview

Corrosive.
Components of the product may affect the nervous system.
Severe respiratory irritant.
Severe skin irritant.
Severe eye irritant.
May cause sensitization by skin contact.
Harmful in contact with skin.
Harmful if swallowed.

Potential Health Effects

Inhalation : Harmful if inhaled and may cause delayed lung injury. Inhalation of aerosol may cause irritation to the upper respiratory tract. Risk of serious damage to the lungs (by inhalation). May cause nose, throat, and lung irritation. Can cause severe eye, skin and respiratory tract burns. May cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure. Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system.

Eye contact : 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 can cause the perception of "blue haze" or "fog" around lights, although this is a temporary effect and has no known residual effect. Causes eye burns. May cause blindness. Severe eye irritation.

Skin contact: Causes skin burns. Contact with skin may result in redness, drying of the skin, dermatitis and defatting. If absorbed through the skin, may cause central nervous system effects, such as headache, nausea, dizziness, confusion, breathing difficulties. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Harmful in contact with skin.

Ingestion: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach. May cause central nervous system effects, such as headache, nausea, vomiting, abdominal pain, dizziness, confusion, breathing difficulties. Severe cases of overexposure can result in respiratory failure. Harmful if swallowed.

Chronic Health Hazard: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Muscular dysfunction. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas.

Exposure Guidelines

Target Organs: Respiratory system.
Skin.
Eyes.
Liver.
Central nervous system.

Symptoms: Repeated and/or prolonged exposure to low concentrations of vapors and/or aerosols may cause: Sore throat.

Aggravated Medical Condition

Asthma. Adverse respiratory effects (such as cough, tightness of chest or shortness of breath). Eye disease. Skin disorders and Allergies. Adverse skin effects (such as rash, irritation or corrosion). Adverse eye effects (such as conjunctivitis or corneal damage). Nervous system disorders (such as narcosis, behavioral changes or decrease in motor function). Liver disorders (such as jaundice or liver enlargement).

4. FIRST AID MEASURES

General advice: Seek medical advice. If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately.

Eye contact: Rinse immediately with plenty of water also under the eyelids for at least 20 minutes. Remove contact lenses.

Skin contact: Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Wash off immediately with plenty of water for at least 20 minutes. Cover wound with sterile dressing. Take off contaminated clothing and shoes immediately. NOTE TO PHYSICIANS: Application of corticosteroid cream has been effective in treating skin irritation.
Ingestion : If a person vomits when lying on his back, place him in the recovery position. Do not induce vomiting without medical advice. Drink 1 or 2 glasses of water. Prevent aspiration of vomit. Turn victim's head to the side.

Inhalation : If breathing has stopped or is labored, give assisted respirations. Supplemental oxygen may be indicated. If the heart has stopped, trained personnel should begin cardiopulmonary resuscitation immediately. Move to fresh air.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam. Carbon dioxide (CO2). Dry chemical. Dry sand. Limestone powder.

Specific hazards : May generate ammonia gas. May generate toxic nitrogen oxide gases. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses. Incomplete combustion may form carbon monoxide. Ammonia gas may be liberated at high temperatures. In case of incomplete combustion an increased formation of oxides of nitrogen (NOx) is to be expected. Downwind personnel must be evacuated. Burning produces obnoxious and toxic fumes.

Special protective equipment for fire-fighters : Avoid contact with the skin. A face shield should be worn. Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

Further information : Do not allow run-off from fire fighting to enter drains or water courses.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Use self-contained breathing apparatus and chemically protective clothing. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.

Environmental precautions : Construct a dike to prevent spreading.

Methods for cleaning up : Approach suspected leak areas with caution. Contact Air Products' Emergency Response Center for advice. Place in appropriate chemical waste container.

Additional advice : Open enclosed spaces to outside atmosphere. Evacuate area and do not approach spilled product. If possible, stop flow of product.

7. HANDLING AND STORAGE

Handling
Avoid contact with skin and eyes. Use only in well-ventilated areas. Avoid breathing vapors and/or aerosols. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules.
established by government regulations. Avoid contact with eyes. Use personal protective equipment. When using, do not eat, drink or smoke.

Storage

Do not store near acids. Keep containers tightly closed in a dry, cool and well-ventilated place.

Technical measures/Precautions

Do not store in reactive metal containers.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures

Provide readily accessible eye wash stations and safety showers. Provide natural or explosion-proof ventilation adequate to ensure concentrations are kept below exposure limits.

Personal protective equipment

Respiratory protection : Wear appropriate respirator when ventilation is inadequate.
Hand protection : Neoprene gloves.
PVC disposable gloves
Nitrile rubber.
Impervious gloves.
The breakthrough time of the selected glove(s) must be greater than the intended use period.
Eye protection : Full face shield with goggles underneath. Chemical resistant goggles must be worn.
Skin and body protection : Slicker Suit.
Impervious clothing.
Full rubber suit (rain gear).
Rubber or plastic boots.
Long sleeve shirts and trousers without cuffs.
Environmental exposure controls : Construct a dike to prevent spreading.
Special instructions for protection and hygiene : Discard contaminated leather articles. Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Provide readily accessible eye wash stations and safety showers. Wash at the end of each workshift and before eating, smoking or using the toilet.

Exposure limit(s)

| Benzene-1,3-dimethaneamine (MXDA) | Ceiling Limit Value: ACGIH | - | 0.1 mg/m3 |
Benzene-1,3-dimethaneamine (MXDA) | Ceiling Limit Value and Time Period (if specified): NIOSH | - | 0.1 mg/m³

9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid.
Color : Light yellow.
Odor : Amine-like.
Relative density : 1.1 (water = 1)
Vapor pressure : 7.50 mmHg at 70 °F (21 °C)
Density : 68.671 lb/ft³ (1.1 g/cm³) at 70 °F (21 °C)
pH : > 11
Boiling point/range : > 225 °F (> 107.22 °C)
Flash point : > 235 °F (> 112.78 °C)
Water solubility : Slightly soluble.

10. STABILITY AND REACTIVITY

Stability : Stable under normal conditions.
Materials to avoid:
- Sodium hypochlorite.
- Organic acids (i.e. acetic acid, citric acid etc.).
- Mineral acids.
- Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.
- Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion.
- Reactive metals (e.g. sodium, calcium, zinc etc.).
- Materials reactive with hydroxyl compounds.
- Oxidizing agents.

Hazardous decomposition products: In case of fire hazardous decomposition products may be produced such as:
- Carbon monoxide.
- Carbon dioxide (CO₂).
- Nitric acid.
- Ammonia
- Nitrogen oxides (NOx).
- Nitrogen oxide can react with water vapors to form corrosive nitric acid.
- Aldehydes

11. TOXICOLOGICAL INFORMATION
Acute Health Hazard

Ingestion: LD50: > 1,230 mg/kg
Species: Rat.

Inhalation: No data is available on the product itself.

Inhalation - Components
Benzyl alcohol: LC50 (4 h): > 4.178 mg/l
Species: Rat.

Skin: No data is available on the product itself.

Skin - Components
Benzyl alcohol: LD50: 2,000 mg/kg
Species: Rabbit.

Eye irritation/corrosion: Severe eye irritation.

Acute dermal irritation/corrosion: Severe skin irritation.

Sensitization: May cause sensitization by skin contact.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity: No data is available on the product itself.

Toxicity to fish - Components
Benzyl alcohol: LC50 (96 h): 10 mg/l
Species: Bluegill sunfish (Lepomis macrochirus).

Benzyl alcohol: LC50 (96 h): 460 mg/l
Species: Fathead minnow (Pimephales promelas).

Toxicity to algae - Components
Benzyl alcohol: IC50 (72 h): 700 mg/l
Species: Algae.

Toxicity to other organisms: No data available.

Persistence and degradability

Mobility: No data available.

Bioaccumulation: No data is available on the product itself.

Bioaccumulation - Components
Benzyl alcohol: Low bioaccumulation potential.
13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products : Contact supplier if guidance is required.

Contaminated packaging : Dispose of container and unused contents in accordance with federal, state, and local requirements.

14. TRANSPORT INFORMATION

CFR
Proper shipping name : Amines, liquid, corrosive, n.o.s. (Benzene-1,3-dimethaneamine (mxda))
Class : 8
UN/ID No. : UN2735
Packing group : III

IATA
Proper shipping name : Amines, liquid, corrosive, n.o.s. (Benzene-1,3-dimethaneamine (mxda))
Class : 8
UN/ID No. : UN2735
Packing group : III

IMDG
Proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S. (Benzene-1,3-dimethaneamine (mxda))
Class : 8
UN/ID No. : UN2735
Packing group : III

CTC
Proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S. (Benzene-1,3-dimethaneamine (mxda))
Class : 8
UN/ID No. : UN2735
Packing group : III

15. REGULATORY INFORMATION

Corrosive. Sensitizer.

<table>
<thead>
<tr>
<th>Country</th>
<th>Regulatory list</th>
<th>Notification</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA</td>
<td>TSCA</td>
<td>Included on Inventory.</td>
</tr>
<tr>
<td>EU</td>
<td>EINECS</td>
<td>Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.</td>
</tr>
<tr>
<td>Canada</td>
<td>DSL</td>
<td>Not on Inventory. Notifications have been submitted to Environment Canada.</td>
</tr>
<tr>
<td>Australia</td>
<td>AICS</td>
<td>Included on Inventory.</td>
</tr>
</tbody>
</table>
Japan | ENCS | Included on Inventory.
South Korea | ECL | Included on Inventory.
China | SEPA | Not on Inventory.
Philippines | PICCS | Not on Inventory.

EPA SARA Title III Section 312 (40 CFR 370) Hazard Classification:
Acute Health Hazard

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level:
None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)
This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

WHMIS Hazard Classification
Toxic Material Causing Other Toxic Effects, Corrosive Material

16. OTHER INFORMATION

HMIS Rating

<table>
<thead>
<tr>
<th>Category</th>
<th>Rating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health</td>
<td>3</td>
</tr>
<tr>
<td>Flammability</td>
<td>1</td>
</tr>
<tr>
<td>Physical hazard</td>
<td>1</td>
</tr>
</tbody>
</table>

Prepared by  : Air Products and Chemicals, Inc. Global EH&S Product Safety Department

For additional information, please visit our Product Stewardship web site at http://www.airproducts.com/productstewardship/