



# ATS, INC

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Web Site: www.atsduct.com

## ChemBond Standard Hardener Material Safety Data Sheet

REVISED JANUARY, 2009

### 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Resin Hardener

**Product Use Description:** Curing agent

**Company:** ATS, Inc.  
2785 Goodrick Ave.  
Richmond, CA 94801 USA

**Telephone:** +1.510.234.3173

**Emergency Telephone Number:** +1.510.234.3173

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Weight)
Tris (dimethylaminomethyl)	90-72-2	80% or less
Mixed Cycloaliphatic amines		< 25%
Methylenebis(cyclohexamine, 4, 4'-	1761-71-3	
Benzene-1,3-dimethaneamine (MXDA)	1477-55-0	80% or less

**CHEMICAL FAMILY:** Aliphatic Amines

### 3. HAZARDOUS IDENTIFICATION

#### Emergency Overview

Corrosive.  
Keep away from heat and sources of ignition.  
Severe respiratory irritant.  
Severe skin irritant.  
Severe eye irritant.  
May cause sensitization by skin contact.  
Toxic by inhalation

#### Potential Health Effects

Inhalation: Inhalation of aerosol may cause irritation to upper respiratory tract. Risk of serious damage to lungs (by irritation). May cause nose, throat and lung irritation. Can cause severe eye, skin and respiratory tract burning. Toxic by inhalation.

Eye contact : Causes eye burns. May cause blindness. Severe eye irritation.

Skin contact : Causes skin burns.

Ingestion : If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach

Chronic Health Hazard : This product contains no listed carcinogens according to IARC, AGIH,NTP and/or OSHA in concentrations of 0.1 percent or greater. 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.

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).

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## **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 eyelid for at least 20 minutes. Remove contact lenses. Seek medical advice.

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. Seek medical advice.

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. Seek medical advice.

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. Seek medical advice.

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## 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Alcohol-resistant foam.  
Carbon dioxide (CO<sub>2</sub>).  
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 (NO<sub>x</sub>) 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.

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## 6. ACCIDENTAL RELEASE MEASURES FOR QUANTITIES GREATER THAN 2 LITERS

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 ATS, Inc. for advice. Place in appropriate chemical waste container.

Additional advice : Open enclosed spaces to outside atmosphere. If possible, stop flow of product.

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## 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.

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## 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 Protection :                 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 articles. Provide readily accessible eye wash stations and safety showers. Wash at the end of each workshift and before eating, smoking or using the toilet.

Benzene-1,3-dimethaneamine (MXDA)	Ceiling Limit Value: ACGIH	0.1 mg/m <sup>3</sup>
Benzene-1,3-dimethaneamine (MXDA)	Ceiling Limit Value an Time Period (if specified) NIOSH	0.1 mg/m <sup>3</sup>

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form :	Liquid.
Color :	Light Yellow.
Odor :	Ammonical.
Relative density :	1.12 (water = 1)
Vapor pressure :	5.50 mmHg at 70 °F (21 °C)
Density :	69.919 lb/ft <sup>3</sup> (1.12 g/cm <sup>3</sup> ) at 70 °F (21 °C)
pH :	ca 10
Boiling point/range :	> 482 °F (> 250 °C)
Flash point :	> 200 °F (> 93°C)

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## 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. Reaction with peroxides may result in violent decomposition of peroxide possibly creating an explosion. Oxidizing agents.
Hazardous decomposition products :	In case of fire hazardous decomposition products may be produced such as: Carbon monoxide. Carbon dioxide (CO <sub>2</sub> ). Nitrogen oxides (NO <sub>x</sub> ). Nitrogen oxide can react with water vapors to form corrosive nitric acid. Ammonia

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## 11. TOXICOLOGICAL INFORMATION

### Acute Health Hazard

Ingestion : LD50 : > 2,000 mg/kg  
Species : Rat.  
Method : Estimated.

Inhalation : LC50 (1 h) : > 700 ppm  
Species : Rat.

Skin. : 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.

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## 12. ECOLOGICAL INFORMATION

### Ecotoxicity effects

Aquatic toxicity : EC50 (96 h) : 0.76 mg/l  
Species : Rainbow trout (*Oncorhynchus mykiss*).  
EC50 (48 h) : 1 mg/l  
Species : *Daphnia magna*.

Toxicity to other organisms : No data available.

### Persistence and degradability

Mobility : No data available.  
Bioaccumulation : No data is available on the product itself.

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## 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.

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## 14. TRANSPORT INFORMATION

### CFR

Proper shipping name : Amines, liquid, corrosive, n.o.s. (Aliphatic amine )  
Class : 8  
UN/ID No. : UN2735  
Packing group : II

### IATA

Proper shipping name : Amines, liquid, corrosive, n.o.s. (Aliphatic amine )  
Class : 8  
UN/ID No. : UN2735  
Packing group : II

### IMDG

Proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S. (Aliphatic amine )  
Class : 8  
UN/ID No. : UN2735  
Packing group : II

### CTC

Proper shipping name : AMINES, LIQUID, CORROSIVE, N.O.S. (Aliphatic amine )  
Class : 8  
UN/ID No. : UN2735  
Packing group : II

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## 15. REGULATORY INFORMATION

OSHA Hazard Communication Standard (29 CFR 1910.1200) Hazard Class(es):

Corrosive. Sensitizer.

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on EINECS inventory or polymer substance, monomers included on EINECS inventory or no longer polymer.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
Japan	ENCS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included 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

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**16. OTHER INFORMATION**

**HMIS Rating**

Health : 3

Flammability : 1

Physical hazard : 1

Prepared by : ATS, Inc. <http://www.atsduct.com>

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