

## Material Safety Data Sheet

Revision Date: 08/12      Print Date: 08/27/12  
Version 3.0      MSDS Identification: 1100CS - Part B      Epoxy Curing Agent

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : 1100CS - Part B

Product Use Description : Epoxy Curing Agent

Company : Protective Floorings and Linings  
A Division of Milamar Coatings, LLC  
311 N.W. 122nd St, Suite 100  
Oklahoma City, OK 73114

Telephone : 405-755-8448

Emergency Telephone Number: ChemTel 800-255-3924 or 813-248-0585 (International)

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients 1	% Wt.	Symbol	CAS No.	EC No.	R-phrases
3-Aminomethyl-3,5,5-trimethylcyclohexylamine	25-35	C	2855-13-2	220-666-8	21/22-34-43-52/53
Benzyl Alcohol	30-50	Xn	100-51-6	202-859-9	20/22
m-Xylene-alpha, alpha'-Diamine	15-30	C	1477-55-0	216-032-5	20/22-35-43-52/53
2-Hydroxybenzoic Acid	8-Feb	Xn	69-72-9	200-712-3	22-36/38

### 3. HAZARDS INFORMATION

#### Emergency Overview

Harmful if swallowed.  
Corrosive.  
Keep away from heat and sources of ignition.  
Severe skin irritant.  
Severe eye irritant.  
May cause sensitization by skin contact.

#### Potential Health Effects

Inhalation : Inhalation of aerosol may cause irritation to the upper respiratory tract. Can cause severe eye, skin and respiratory tract burns.

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.

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Ingestion	:	Harmful if swallowed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach.
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. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas.
Exposure Guidelines		
Target Organs	:	Skin. Eyes
Aggravated Medical Condition	:	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 initiated. 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	:	Prevent aspiration of vomit. Turn victim's head to the side.
Inhalation	:	Move to fresh air.

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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. 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.

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Special Protective Equipment For Fire Fighter :	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

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 Clean-Up :	Contact Protective Floorings and Linings for advice. Place in appropriate chemical waste container.
Additional Advice :	If possible, stop flow of product.

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## 7. HANDLING AND STORAGE

Handling :	Avoid contact with skin and eyes. 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 :	Store in steel containers preferably located outdoors, above ground, and surrounded by dikes to contain spills or leaks. 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 :	Not required for properly ventilated areas.
Hand Protection :	Neoprene gloves. PVC Disposable Gloves. Butyl-rubber gloves. Nitrile Rubber. Impervious Gloves. The breakthrough time of the selected glove(s) must be greater than the intended use period.

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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.

## Special Instructions For Protection And Hygiene :

Discard contaminated leather articles. 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.

## Exposure Limit(s)

	Ceiling Limit Value: ACGIH	Ceiling Limit Value and Time Period (if specified): NIOSH
3-Aminomethyl-3,5,5-trimethylcyclohexylamine m-Phenylenebis(methylamine)	0.1 mg/m <sup>3</sup> (skin)	0.1 mg/m <sup>3</sup> (skin)
Benzene-1,3-dimethanamine (MXDA)	0.1 mg/m <sup>3</sup>	0.1 mg/m <sup>3</sup>

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form : Liquid.

Color : Amber

Relative Density : 1.04 (water = 1).

Density : 64.925 lb/ft<sup>3</sup> (1.04g/cm<sup>3</sup>) at 70 degrees (21 degrees C).

pH : not applicable.

Boiling Point / Range : > 392 degrees F (200 degrees C).

Flash Point : 230 degrees F (110 degrees C).

## 10. STABILITY AND REACTIVITY

Stability : Stable under normal conditions.

Materials To Avoid : Organic acids (i.e. acetic acid, citric acid etc.).  
Mineral Acids.  
Product slowly corrodes copper, aluminum, zinc and galvanized surfaces.  
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:

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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	:	LD 50: >1,752 mg/kg Species: Rat Method: Estimated
Inhalation	:	No data is available on the product itself.
Skin	:	No data is available on the product itself.
Eye Irritation / Corrosion	:	Severe eye irritation.
Acute Dermal Irritation / Corrosion	:	Severe skin irritation.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicity Effects

Aquatic Toxicity	:	No data is available on the product itself.
Toxicity To Fish - Components		
Benzyl Alcohol	:	LC50(96 h):10mg/l Species: Bluegill sunfish (Iepomis macrochirus).
Benzyl Alcohol	:	LC50(96 h):460mg/l Species: Fathead minnow (pimephales promelas).
Toxicity To Algae - Components		
Benzyl Alcohol	:	IC50(72 h):700mg/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.
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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.

## 14. TRANSPORT INFORMATION

CFR

Proper Shipping Name : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (CYCLOALIPHATIC AMINE ADDUCT)

Class : 8

UN / ID No. : 3267

Packing Group : III

IATA

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## 15. REGULATORY INFORMATION

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

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	Not on Inventory. Notifications have been submitted to Environment Canada.
Australia	AICS	Not on Inventory.
Japan	ENCS	Not on Inventory.
South Korea	ECL	Not on Inventory.
China	SEPA	Not on Inventory.
Philippines	PICCS	Not on Inventory.

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EPA SARA Title III Section 312 (40 CFR 370) Hazard Communication: 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 chemical known to the State of California to cause cancer, birth defects or any other harm.		
WHMIS Hazard Classification: Toxic Material Causing Other Toxic Effects, Corrosive Material.		
WHMIS Trade Secret Registry Number(s): 5027 Filing Date 03/27/2001.		
Canadian Classification	:	E: Corrosive materials; D2B: Toxic materials causing other effects
Risk Phrase(s)	:	Causes severe burns. Harmful by inhalation, in contact with skin and if swallowed. May cause sensitisation by skin contact
Precautionary and First Aid Measure(s)	:	Wear suitable protective clothing,gloves and eye/face protection. Use only in well ventilated areas. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. In case of accident or if you fell unwell, seek medical advice immediately (show the label where possible).
Other Information	:	DSL; Not on inventory.

## 16. OTHER INFORMATION

HMIS Rating		
Health	:	3
Flammability	:	1
Physical Hazard	:	1
Prepared By	:	<u>Protective Floorings and Linings. EH&amp;S Product Safety Department</u>

<sup>1</sup> Classified according to: \*29 CFR 1910,1200,1915,1916,1917  
\*Mass, right-to-know law(ch. 40,M.G.L.,O 111F)  
\*Canadian WHMIS regulations  
\*67/548/EEC(29th Adaption) and 99/45EC  
\*Worksafe Austialia (NOHSC: 1008(1999))