PROTECTIVE
FLOORINGS & LININGS
A DIVISION OF MILAMAR COATINGS, L.L.C.

Material Safety Data Sheet

Revision Date:	08/12	Print Date:	08/20/12	
Version 2.0		MSDS Identification:	1650CS - Part B	Epoxy Curing Agent

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : 1650CS - 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

Components	CAS Number	Concentration (Weight)
Tetraethylenepentamine	112-57-2	< 10 %
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	< 10 %

Chemical Family: Amidoamine

3. HAZARDS INFORMATION

Emergency Overview

Keep away from heat and sources of ignition.
Severe skin irritant.
May cause sensitization by skin contact.

Potential Health Effects

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

Aggravated Medical Condition : Skin disorders and allergies. Adverse skin effects (such as rash, irritation or corrosion).

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	:	Wash off immediately with plenty of water for at least 20 minutes. Wash off with soap and water. Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. 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.

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. 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	:	Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

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.

7. HANDLING AND STORAGE

Handling	:	Do not use sodium nitrite or nitrosating agents in formulations containing this product. Suspected cancer-causing nitrosamines could be formed. Emergency showers and eye wash stations should be readily accessible. Adhere to work practice rules established by government regulations. Use personal protective equipment. When using, do not eat, drink or smoke.
Storage	:	Keep away from alkalis. 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	:	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.
Eye Protection	:	Chemical Safety Glasses.
Skin And Body Protection	:	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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form	:	Liquid.
Color	:	Amber.
Odor	:	Ammoniacal.
Relative Density	:	1.01 (water = 1)

Vapor Pressure	:	2.10 mmHg
Density	:	63.052 lb/ft3 (1.01 g/cm3) at 70 degrees F (21 degrees C)
pH	:	Alkaline.
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. CAUTION! N-Nitrosamines, many of which are known to be potent carcinogens, may be formed when the product comes in contact with nitrous acid, nitrites or atmosphere with high nitrous oxide concentrations. Nitrous Acid and other nitrosating agents. Oxidizing agents.
Hazardous decomposition products	:	Nitric Acid. Ammonia Nitrogen oxides (NOx). Nitrogen oxide can react with water vapors to form corrosive nitric acid. Carbon Monoxide. Carbon Dioxide (CO2). Aldehydes. Nitrosamine.

11. TOXICOLOGICAL INFORMATION

Acute Health Hazard

Ingestion	:	LD 50: >2,000 mg/kg Species: Rat Method : Estimated
Inhalation	:	No data is available on the product itself.
Skin	:	LD50 : > 2,000 mg/kg Species : Rabbit Method : Estimated
Acute Dermal Irritation / Corrosion	:	Severe skin irritation

12. ECOLOGICAL INFORMATION

Ecotoxicity Effects

Aquatic Toxicity	:	No data is available on the product itself.
Toxicity to other organisms	:	No data available.

Persistence And Degradability

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

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	:	not regulated
IATA	:	not regulated
IMDG	:	not regulated
CTC	:	not regulated

15. REGULATORY INFORMATION

OSHA Hazard Communication Standard (29 CFR 1910.1200) Hazard Class(es) : Irritant. 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	Not on Inventory.
South Korea	ECL	Not on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.

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: Phenol, 4,4"-(1-methylidene)bis-

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

16. OTHER INFORMATION

HMIS Rating

Health	:	2
Flammability	:	1
Physical Hazard	:	0

Prepared By : Protective Floorings and Linings. EH&S Product Safety Department