

## SAFETY DATA SHEET

### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Identification of the substance/preparation	Tapecoat Wet Bond Epoxy Mastic Hardener	
Version #	01	
Issue date	05-16-2015	
CAS #	Mixture	
Manufacturer information	Chase Corporation - Tapecoat Division 1527 Lyons Street Evanston, IL 60201 United States info@chasecorp.com	
	General Assistance	800 543-3458
	Chemtrec (US - 24 hrs)	800 424-9300
	Chemtrec (INTL - 24 hrs)	703-527-3887

### 2. HAZARDS IDENTIFICATION

This preparation is classified as dangerous according to Directive 1999/45/EC and its amendments.

<b>Classification</b>	Repr. Cat. 3;R62, T;R24/25, Xi;R38-41, R43
<b>Physical hazards</b>	Not classified as a physical hazard.
<b>Health hazards</b>	Toxic in contact with skin and if swallowed. Irritating to skin. Risk of serious damage to eyes. May cause sensitization by skin contact. Possible risk of impaired fertility.
<b>Environmental hazards</b>	Not classified as an environmental hazard.
<b>Specific hazards</b>	Toxic in contact with skin and if swallowed. Irritating to mouth, throat, and stomach. Risk of serious damage to eyes. Pregnant women or women of child-bearing age should not be exposed to this product. Possible risk of impaired fertility. Do not breathe dust/fume/gas/mist/vapors/spray.
<b>Main symptoms</b>	Irritating to mouth, throat, and stomach. Irritation of eyes and mucous membranes. Permanent eye damage including blindness could result. Skin irritation.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS #	Percent	EC-No.	Classification
Bisphenol A	80-05-7	20 - 40	201-245-8	Repr. Cat. 3;R62, Xi;R37-41, R43, R52
2,2'-iminodi(ethylamine)	111-40-0	2.5 - 10	203-865-4	C;R34, Xn;R21/22, R43
BENZYL ALCOHOL	100-51-6	2.5 - 10	202-859-9	Xn;R20/22, Xi;R36
Other components below reportable levels		60 - 80		

### 4. FIRST AID MEASURES

<b>Inhalation</b>	Move to fresh air. For breathing difficulties, oxygen may be necessary. Call a physician if symptoms develop or persist.
<b>Skin contact</b>	Remove and isolate contaminated clothing and shoes. Immediately flush skin with plenty of water. Call a physician or poison control center immediately. For minor skin contact, avoid spreading material on unaffected skin. Take off contaminated clothing and wash before reuse. Wash clothing separately before reuse.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Call a physician or poison control center immediately.

<b>Ingestion</b>	If swallowed, seek medical advice immediately and show this container or label. Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.
<b>General advice</b>	Take off contaminated clothing and shoes immediately. In case of shortness of breath, give oxygen. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Keep victim under observation. Keep victim warm.
<b>Notes to physician</b>	In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.

## 5. FIRE-FIGHTING MEASURES

<b>Suitable extinguishing media</b>	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO <sub>2</sub> ).
<b>Extinguishing media which must not be used for safety reasons</b>	Do not use water jet as an extinguisher, as this will spread the fire.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Containment procedures</b>	Use water spray to reduce vapors or divert vapor cloud drift. Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.
<b>Personal precautions</b>	Keep unnecessary personnel away. Keep upwind. Keep out of low areas. Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the MSDS.
<b>Environmental precautions</b>	Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
<b>Methods for cleaning up</b>	The product is immiscible with water and will spread on the water surface.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. This material and its container must be disposed of as hazardous waste. For waste disposal, see section 13 of the MSDS.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Do not empty into drains.
<b>Storage</b>	Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the MSDS).

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Occupational exposure limits

#### US. ACGIH Threshold Limit Values

Components	Type	Value
2,2'-iminodi(ethylamine) (CAS 111-40-0)	TWA	1 ppm

### Exposure limit values

#### Hong Kong. OELs. (Occupational Exposure Limits for Chemical Substances in the Work Environment)

Components	Type	Value
2,2'-iminodi(ethylamine) (CAS 111-40-0)	TWA	4.2 mg/m <sup>3</sup>  1 ppm

**Biological limit values** No biological exposure limits noted for the ingredient(s).

### Recommended monitoring procedures

**Additional exposure data** Not available.

#### US ACGIH Threshold Limit Values: Skin designation

2,2'-iminodi(ethylamine) (CAS 111-40-0) Can be absorbed through the skin.

<b>Engineering measures to reduce exposure</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.
<b>Personal protective equipment</b>	
<b>Respiratory protection</b>	Use a positive-pressure air-supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air-purifying respirators may not provide adequate protection.
<b>Hand protection</b>	Wear protective gloves.
<b>Eye protection</b>	Face-shield. Avoid contact with eyes.
<b>Skin and body protection</b>	Avoid contact with the skin. Wear chemical protective equipment that is specifically recommended by the manufacturer.
<b>General</b>	Eye wash fountain is recommended.
<b>Environmental exposure controls</b>	Environmental manager must be informed of all major releases.
<b>Hygiene measures</b>	Wash hands after handling.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

<b>Physical state</b>	Liquid.
<b>Form</b>	Liquid.
<b>Color</b>	Light amber.
<b>Odor</b>	Ammoniacal.
<b>Odor threshold</b>	Not available.
<b>pH</b>	Not available.
<b>Vapor pressure</b>	Negligible
<b>Vapor density</b>	Not available.
<b>Boiling point</b>	> 392 °F (> 200 °C)
<b>Melting point/Freezing point</b>	-38.2 °F (-39 °C) estimated
<b>Solubility (water)</b>	Insoluble
<b>Specific gravity</b>	1 estimated
<b>Relative density</b>	Not available.
<b>Flash point</b>	> 392.0 °F (> 200.0 °C)
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Auto-ignition temperature</b>	> 392 °F (> 200 °C)
<b>VOC</b>	0 g/l
<b>Viscosity</b>	3000 - 4000 cP
<b>Percent volatile</b>	9 % estimated
<b>Other data</b>	
<b>Density</b>	1.12 g/cm <sup>3</sup> estimated

## 10. STABILITY AND REACTIVITY

<b>Conditions to avoid</b>	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.
<b>Stability</b>	Material is stable under normal conditions.
<b>Materials to avoid</b>	Strong acids. Alkaline metals.

## 11. TOXICOLOGICAL INFORMATION

### Toxicological data

Product	Species	Test Results
Tapecoat Wet Bond Epoxy Mastic Hardener (CAS Mixture)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	22222.2227 mg/kg estimated
<i>Inhalation</i>		
LC100	Rat	2222.2222 mg/l, 8 Hours estimated
LC50	Rat	11111.1113 mg/l, 8 Hours estimated
<i>Oral</i>		
LD50	Mouse	6532.4458 mg/kg estimated
	Rabbit	21555.5547 mg/kg estimated
	Rat	4854.6304 mg/kg estimated
<i>Other</i>		
LD50	Guinea pig	1600 mg/kg estimated
	Mouse	840.0157 mg/kg estimated
	Rabbit	601.884 mg/kg estimated
	Rat	388.5323 mg/kg estimated
Components	Species	Test Results
2,2'-iminodi(ethylamine) (CAS 111-40-0)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Rat	1080 mg/kg
<i>Other</i>		
LD50	Guinea pig	162 mg/kg
	Mouse	71 mg/kg
	Rabbit	1090 mg/kg
	Rat	74 mg/kg
BENZYL ALCHOHOL (CAS 100-51-6)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	2000 mg/kg
<i>Inhalation</i>		
LC100	Rat	200 - 300 mg/l, 8 Hours
LC50	Rat	1000 mg/l, 8 Hours
<i>Oral</i>		
LD50	Mouse	1580 mg/kg
	Rabbit	1940 mg/kg
	Rat	1230 - 3100 mg/kg
<i>Other</i>		
LD50	Guinea pig	> 400 mg/kg
	Mouse	324 mg/kg
	Rat	53 mg/kg
Bisphenol A (CAS 80-05-7)		
<b>Acute</b>		
<i>Oral</i>		
LD50	Mouse	2500 mg/kg
	Rat	3300 mg/kg
<i>Other</i>		
LD50	Rabbit	150 mg/kg

\* Estimates for product may be based on additional component data not shown.

<b>Routes of exposure</b>	Inhalation. Ingestion. Skin contact. Eye contact.
<b>Chronic toxicity</b>	Prolonged inhalation may be harmful.
<b>Sensitization</b>	May cause sensitization by skin contact.
<b>Carcinogenicity</b>	Not classifiable as to carcinogenicity to humans.
<b>Mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
<b>Reproductivity</b>	Possible reproductive hazard.
<b>Epidemiology</b>	No epidemiological data is available for this product.
<b>Local effects</b>	Toxic in contact with skin and if swallowed. Irritating to eyes. Irritating to skin. Risk of serious damage to eyes. May cause sensitization by skin contact.
<b>Symptoms and target organs</b>	Irritation of eyes and mucous membranes. Permanent eye damage including blindness could result. Skin irritation. Irritating to mouth, throat, and stomach.

## 12. ECOLOGICAL INFORMATION

### Ecotoxicological data

Product		Species	Test Results
Tapecoat Wet Bond Epoxy Mastic Hardener (CAS Mixture)			
<b>Aquatic</b>			
Crustacea	EC50	Daphnia	38.2855 mg/l, 48 hours estimated
Fish	LC50	Fish	21.7582 mg/l, 96 hours estimated
<b>Components</b>			
<b>Species</b>			
<b>Test Results</b>			
2,2'-iminodi(ethylamine) (CAS 111-40-0)			
<b>Aquatic</b>			
Fish	LC50	Guppy (Poecilia reticulata)	1014 mg/l, 96 hours
BENZYL ALCOHOL (CAS 100-51-6)			
<b>Aquatic</b>			
Fish	LC50	Bluegill (Lepomis macrochirus)	10.5 mg/l, 96 hours
Bisphenol A (CAS 80-05-7)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Daphnia magna)	9.2 - 11.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	3.6 - 5.4 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

<b>Ecotoxicity</b>	Not expected to be harmful to aquatic organisms.
<b>Environmental effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
<b>Persistence and degradability</b>	
<b>Biodegradability</b>	
<b>Percent degradation (Aerobic biodegradation)</b>	
BENZYL ALCOHOL	94 %
<b>Bioaccumulation</b>	
<b>Bioaccumulative potential</b>	
<b>Octanol/water partition coefficient log Kow</b>	
BENZYL ALCOHOL	1.1
Bisphenol A	3.32
<b>Aquatic toxicity</b>	Not available.
<b>Mobility</b>	The product is immiscible with water and will spread on the water surface.

## 13. DISPOSAL CONSIDERATIONS

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Must be incinerated in a suitable incineration plant holding a permit delivered by the competent authorities. Do not discharge into drains, water courses or onto the ground. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions). Avoid discharge into water courses or onto the ground.
<b>Contaminated packaging</b>	Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. TRANSPORT INFORMATION

### IATA

UN number	2735
UN proper shipping name	Amines, liquid, corrosive, n.o.s. (2,2'-iminodi(ethylamine))
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	No.
ERG Code	8L
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

### IMDG

UN number	2735
UN proper shipping name	AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (2,2'-iminodi(ethylamine))
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	III
Environmental hazards	
Marine pollutant	No.
EmS	F-A, S-B
Special precautions for user	Read safety instructions, MSDS and emergency procedures before handling.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	This substance/mixture is not intended to be transported in bulk.

### IATA; IMDG



## 15. REGULATORY INFORMATION

### Labeling

Contains 2,2'-iminodi(ethylamine), BENZYL ALCOHOL, Bisphenol A

### Symbol(s)



Toxic

<b>R-phrases(s)</b>	R24/25 Toxic in contact with skin and if swallowed. R38 Irritating to skin. R41 Risk of serious damage to eyes. R43 May cause sensitization by skin contact. R62 Possible risk of impaired fertility.
<b>S-phrases(s)</b>	S23 Do not breathe gas/fumes/vapor/spray. S24/25 Avoid contact with skin and eyes. S29 Do not empty into drains. S36/37/39 Wear suitable protective clothing, gloves and eye/face protection. S60 This material and its container must be disposed of as hazardous waste.

Follow national regulation for work with chemical agents.

**Regulatory information**

The product is classified and labelled in accordance with EC directives or respective national laws. This Safety Data Sheet complies with the requirements of Regulation (EC) No 1907/2006. Young people under 18 years old are not allowed to work with this product according to EU Directive 94/33/EC on the protection of young people at work.

**16. OTHER INFORMATION****Wording of the R-phrases in sections 2 and 3**

R20/22 Harmful by inhalation and if swallowed.  
R21/22 Harmful in contact with skin and if swallowed.  
R24/25 Toxic in contact with skin and if swallowed.  
R34 Causes burns.  
R36 Irritating to eyes.  
R37 Irritating to respiratory system.  
R38 Irritating to skin.  
R41 Risk of serious damage to eyes.  
R43 May cause sensitization by skin contact.  
R52 Harmful to aquatic organisms.  
R62 Possible risk of impaired fertility.

**International Inventories**

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**Disclaimer**

The information offered in this data sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication, however, no guarantee is made to its accuracy. This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process. This material is intended for industrial use only. No warranty, expressed or implied is made.

**Prepared by**

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