

Material Safety Data Sheet
Clear Hardener Side**Section 1 - Chemical Product and Company Identification****MSDS Name:**

Clear Hardener Side

Catalog Numbers:

CLEARHARD

Synonyms:

None Known.

Company Identification:Epoxy Products LLC
500 East 16th Street
Mountain Home, AR 72653**Company Phone Number:**

800-424-5254

Emergency Phone Number:

870-425-4321

CHEMTREC Phone Number, US:

(800) 424-9300

CHEMTREC Phone Number, Europe:

(202) 483-7616

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name:	Percent	EINECS/ ELINCS	Hazard Symbols	Risk Phrases
100-51-6	Benzyl alcohol	20-40	202-859-9		
1477-55-0	m-xylene-.alpha., .alpha.'-diamine	10-20	216-032-5		
2855-13-2	Isophorone diamine	10-20	220-666-8		
Not available	Epoxy Polyamine adduct	7-20	Not available		
98-54-4	p-tert-butyl phenol	3-10	202-679-0		
97-99-4	Tetrahydrofurfuryl alcohol	20	202-625-6		
25154-52-3	Nonylphenol	1-3	246-672-0		
140-31-8	1-(2-aminoethyl) piperazine	1-2	205-411-0		

Material Safety Data Sheet

Clear Hardener Side

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: Colorless to light yellow liquid

Danger! Causes eye and skin burns. Causes digestive and respiratory tract burns.

Harmful if swallowed, inhaled, or absorbed through the skin. May cause allergic respiratory and skin reaction. May cause harm to the unborn child. May cause central nervous system effects.

Target Organs: Central nervous system, Eyes, Skin, Mucous membranes

Potential Health Effects

Eye:

Causes eye burns.

Skin:

Harmful if absorbed through the skin. Causes skin burns. If absorbed, may cause central nervous system effects. May cause an allergic reaction in certain individuals.

Ingestion:

Harmful if swallowed. Causes gastrointestinal tract burns. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.

Inhalation:

Causes chemical burns to the respiratory tract. May cause an allergic response. Harmful if inhaled. Overexposure produces central nervous system depression. May cause central nervous system effects. Symptoms may include headache, dizziness and drowsiness, progressing to incoordination and unconsciousness.

Chronic:

Possible risk of harm to the unborn child. Chronic exposure may cause effects similar to those of acute exposure.

Section 4 - First Aid Measures

Eyes:

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid immediately.

Skin:

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.

Ingestion:

If swallowed, do NOT induce vomiting. Get medical aid immediately. If victim is fully conscious, give a cupful of water. Never give anything by mouth to an unconscious person.

Inhalation:

Get medical aid immediately. Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.



Material Safety Data Sheet

Clear Hardener Side

Notes to Physician:

Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information:

As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Runoff from fire control or dilution water may cause pollution.

Extinguishing Media:

Use dry chemical, carbon dioxide, or alcohol-resistant foam.

Autoignition Temperature:

Not available

Explosion Limits:

Lower: Not available Upper: Not available

Flash Point:

> 110°C (> 230.00°F)

NFPA Rating:

(estimated) Health: 3; Flammability: 1; Instability: 1

Section 6 - Accidental Release Measures

General Information:

Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks:

Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in the Protective Equipment section. Provide ventilation.

Section 7 - Handling and Storage

Handling:

Do not breathe dust, mist, or vapor. Do not get in eyes, on skin, or on clothing. Keep container tightly closed. Do not ingest or inhale. Discard contaminated shoes. Use only with adequate ventilation.

Storage:

Keep container closed when not in use. Keep away from acids. Store in a cool, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

**Material Safety Data Sheet**
Clear Hardener Side**Exposure Limits**

Chemical Name:	ACGIH	NIOSH	OSHA
Benzyl alcohol	None listed	None listed	None listed
m-xylene-alpha.,	0.1 mg/m3 Ceiling;Skin	0.1 mg/m3 Ceiling	None listed
.alpha.'-diamine	- potential significant contribution to overall exposure by the cutaneous route		
Isophorone diamine	None listed	None listed	None listed
Epoxy Polyamine adduct	None listed	None listed	None listed
p-tert-butyl phenol	None listed	None listed	None listed
Tetrahydrofurfuryl alcohol	None listed	None listed	None listed
Nonylphenol	None listed	None listed	None listed
1-(2-aminoethyl) piperazine	None listed	None listed	None listed

OSHA Vacated PELs**Personal Protective Equipment****Eyes:**

Wear chemical splash goggles and face shield.

Skin:

Wear appropriate protective gloves to prevent skin exposure.

Clothing:

Wear appropriate protective clothing to prevent skin exposure.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties**Physical State:** Liquid**Color:** Colorless to light yellow**Odor:** Ammonia-like**pH:** alkaline**Vapor Pressure:** No information found**Vapor Density:** No information found**Evaporation Rate:** No information found**Viscosity:** No information found**Boiling Point:** No information found**Freezing/Melting Point:** No information found**Decomposition Temperature:** No information found**Solubility in water:** No information found**Specific Gravity/Density:** No information found**Molecular Formula:** Solution**Molecular Weight:** No information found

Material Safety Data Sheet Clear Hardener Side

Section 10 - Stability and Reactivity

Chemical Stability:

Stable under normal temperatures and pressures.

Conditions to Avoid:

High temperatures, incompatible materials

Incompatibilities with Other Materials

Oxidizing agents, acids, sodium hypochlorite, Attacks most metals.

Hazardous Decomposition Products

Nitrogen oxides, carbon monoxide, carbon dioxide, ammonia, aldehydes, nitric acid

Hazardous Polymerization

Has not been reported.

Section 11 - Toxicological Information

RTECS:

CAS# 100-51-6: DN3150000

CAS# 1477-55-0: PF8970000

CAS# 2855-13-2: GV5020833

CAS# 98-54-4: SJ8925000

CAS# 97-99-4: LU2450000

CAS# 25154-52-3: SM5600000

CAS# 140-31-8: TK8050000

**LD50/LC50:**

CAS# 100-51-6:

Draize test, rabbit, skin: 100 mg/24H Moderate
Inhalation, mouse: LC50 = >500 mg/m³
Inhalation, rat: LC50 = >500 mg/m³
Oral, mouse: LD50 = 1360 mg/kg
Oral, mouse: LD50 = 1360 mg/kg
Oral, rabbit: LD50 = 1040 mg/kg
Oral, rabbit: LD50 = 1040 mg/kg
Oral, rat: LD50 = 1230 mg/kg
Oral, rat: LD50 = 1660 mg/kg
Skin, rabbit: LD50 = 2000 mg/kg
Skin, rat: LD50 = 100 pph/90M.

CAS# 1477-55-0:

Draize test, rabbit, eye: 50 ug/24H Severe
Draize test, rabbit, skin: 750 ug/24H Severe
Inhalation, rat: LC50 = 700 ppm/1H
Oral, rat: LD50 = 930 mg/kg
Skin, rabbit: LD50 = 2 gm/kg.

CAS# 2855-13-2:

No information found

CAS# 98-54-4:

Draize test, rabbit, eye: 10 mg Severe
Draize test, rabbit, eye: 50 ug/24H Severe
Draize test, rabbit, skin: 500 mg/4H Mild
Draize test, rabbit, skin: 500 mg/24H Mild
Oral, mouse: LD50 = 1030 mg/kg
Oral, rat: LD50 = 3250 uL/kg
Skin, rabbit: LD50 = 2520 uL/kg.

CAS# 97-99-4:

Dermal, guinea pig: LD50 = 5 gm/kg
Draize test, rabbit, eye: 20 mg/24H Moderate
Oral, mouse: LD50 = 2300 mg/kg
Oral, rat: LD50 = 1600 mg/kg.

CAS# 25154-52-3:

Oral, mouse: LD50 = 1231 mg/kg
Oral, rat: LD50 = 580 mg/kg
Skin, rabbit: LD50 = 2140 uL/kg
Skin, rabbit: LD50 = 2140 mg/kg.

CAS# 140-31-8:

Draize test, rabbit, eye: 20 mg/24H Moderate
Draize test, rabbit, skin: 5 mg/24H Severe
Oral, rat: LD50 = 2140 uL/kg
Skin, rabbit: LD50 = 880 uL/kg.

Carcinogenicity:

CAS# 100-51-6: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 1477-55-0: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 2855-13-2: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 98-54-4: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 97-99-4: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 25154-52-3: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.
CAS# 140-31-8: Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Material Safety Data Sheet
Clear Hardener Side**Epidemiology:**

No information found

Teratogenicity:

See actual entry in RTECS for complete information.

Reproductive:

See actual entry in RTECS for complete information.

Mutagenicity:

No information found

Neurotoxicity:

No information found

Other:

The toxicological properties have not been fully investigated.

Section 12 - Ecological Information**Ecotoxicity:**

Fish: Pseudomonas putida:

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Part 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P Series Wastes

None of the components are on this list.

RCRA U Series Wastes

None of the components are on this list.

Section 14 - Transport Information**US DOT****Canadian TDG**

Proper Shipping Name: AMINES, LIQUID,
CORROSIVE,
N.O.S.
(Benzene-1,3-dimethaneamine)

AMINES, LIQUID,
CORROSIVE,
N.O.S.
(Benzene-1,3-dimethaneamine)

Hazard Class: 8

8

UN Number: UN2735

UN2735

Packing Group: II

II



Section 15 - Regulatory Information

US Federal

TSCA

CAS# 100-51-6 is listed on the TSCA Inventory.

CAS# 1477-55-0 is listed on the TSCA Inventory.

CAS# 2855-13-2 is listed on the TSCA Inventory.

Epoxy Polyamine adduct is not listed on the TSCA Inventory. It is for research and development use only.

CAS# 98-54-4 is listed on the TSCA Inventory.

CAS# 97-99-4 is listed on the TSCA Inventory.

CAS# 25154-52-3 is listed on the TSCA Inventory.

CAS# 140-31-8 is listed on the TSCA Inventory.

Health and Safety Reporting List

None of the components are on this list.

Chemical Test Rules

None of the components are on this list.

TSCA Section 12b

None of the components are on this list.

TSCA Significant New Use Rule (SNUR)

None of the components are on this list.

CERCLA Hazardous Substances and corresponding RQs

None of the components are on this list.

SARA Section 302 Extremely Hazardous Substances

None of the components are on this list.

SARA Hazard Categories

CAS# 100-51-6: immediate, fire.

CAS# 1477-55-0: immediate, delayed.

CAS# 97-99-4: immediate, fire.

SARA Section 313

None of the components are on this list.

Clean Air Act - Hazardous Air Pollutants (HAPs)

None of the components are on this list.

Clean Air Act - Class 1 Ozone Depletors

None of the components are on this list.

Clean Air Act - Class 2 Ozone Depletors

None of the components are on this list.

Clean Water Act - Hazardous Substances

None of the components are on this list.

Clean Water Act - Priority Pollutants

None of the components are on this list.

Clean Water Act - Toxic Pollutants

None of the components are on this list.

Material Safety Data Sheet
Clear Hardener Side**OSHA - Highly Hazardous**

None of the components are on this list.

OSHA - Specifically Regulated Chemicals

None of the components are on this list.

US State**State Right to Know**

Benzyl alcohol can be found on the following state Right-to-Know lists: Pennsylvania, Minnesota, Massachusetts.

m-xylene-.alpha., .alpha.'-diamine can be found on the following state Right-to-Know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

Isophorone diamine can be found on the following state Right-to-Know lists: New Jersey.

Tetrahydrofurfuryl alcohol can be found on the following state Right-to-Know lists: Pennsylvania, Massachusetts.

Nonylphenol can be found on the following state Right-to-Know lists: Pennsylvania, Massachusetts.

1-(2-aminoethyl) piperazine can be found on the following state Right-to-Know lists: New Jersey, Pennsylvania, Massachusetts.

California Prop 65

None of the components are on this list.

California No Significant Risk Level

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

None of the components are on this list.

European/International Regulations**European Labelling in Accordance with EC Directives:**

Hazard Symbols: C

Risk Phrases: R 20/21/22 Harmful by inhalation, in contact with skin and if swallowed.

R 34 Causes burns.

R 42/43 May cause sensitization by inhalation and skin contact.

R 62 Possible risk of impaired fertility.

R 63 Possible risk of harm to the unborn child.

Safety Phrases: S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

S 46 If swallowed, seek medical advice immediately and show this container or label.

WGK (Water Danger/Protection)

No information found

United Kingdom Occupational Exposure Limits

No information found

United Kingdom Maximum Exposure Limits

No information found



Material Safety Data Sheet

Clear Hardener Side

Canadian DSL/NDSL

CAS# 100-51-6 is listed on Canada's DSL List.
CAS# 1477-55-0 is listed on Canada's DSL List.
CAS# 2855-13-2 is listed on Canada's DSL List.
CAS# 98-54-4 is listed on Canada's DSL List.
CAS# 97-99-4 is listed on Canada's DSL List.
CAS# 25154-52-3 is listed on Canada's DSL List.
CAS# 140-31-8 is listed on Canada's DSL List.

Canadian WHMIS Classifications

This product has a WHMIS classification of D2B, E, D1B, D2A.
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

Canadian Ingredient Disclosure List

CAS# 100-51-6 is listed on the Canadian Ingredient Disclosure List.
CAS# 1477-55-0 is listed on the Canadian Ingredient Disclosure List.
CAS# 2855-13-2 is listed on the Canadian Ingredient Disclosure List.
CAS# 98-54-4 is listed on the Canadian Ingredient Disclosure List.
CAS# 97-99-4 is listed on the Canadian Ingredient Disclosure List.
CAS# 25154-52-3 is listed on the Canadian Ingredient Disclosure List.
CAS# 140-31-8 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Other Information

No information found
MSDS Creation Date: September 7, 2006
Revision Date: September 7, 2006

Revisions were made in Sections:

2, 3, 5, 6, 7, 8, 9, 10, 11, 1

This MSDS is intended for review and guidance in the receipt, storage, handling, use and disposal of product purchased from us, and for no other purpose. Use this product only as directed and in accordance with applicable instructions and warnings provided with the product. Please consult your institution's policies regarding use of this product. If you have obtained this MSDS other than in connection with the supply of this product from us, this MSDS should be consulted for general information only, and should not be relied upon for any purpose. As with the use of all hazardous materials, you should in all instances follow the guidance of the MSDS provided or available with the specific product purchased.