

Material Safety Data Sheet



Revision Number: 001.0

Issue date: 03/15/2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: Loctite Marine Epoxy- Resin
Product type: Epoxy resin
Item number: 1405604
Region: United States
Company address: Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067
Contact information: Telephone: 800.624.7767
Emergency telephone: 800.424.9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state:	Liquid, Paste	HEALTH:	*2
Color:	Tan	FLAMMABILITY:	1
Odor:	Slight	PHYSICAL HAZARD:	0
		Personal Protection:	See MSDS Section 8

WARNING: MAY CAUSE ALLERGIC SKIN REACTION.
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

Relevant routes of exposure: Skin, Inhalation, Eyes

Potential Health Effects

Inhalation: Mild respiratory tract irritation. Coughing.
Skin contact: May cause allergic skin reaction. Moderate skin irritation. Itching. Redness.
Eye contact: Moderate eye irritation. Excess tearing.
Ingestion: Not expected to be harmful by ingestion.

Existing conditions aggravated by exposure: Skin disorders. Skin allergies.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	30 - 60
Quartz (SiO ₂)	14808-60-7	30 - 60
Calcium carbonate	471-34-1	10 - 30

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.

Skin contact: Remove contaminated clothing and footwear. Immediately flush skin with plenty of water (using soap, if available). If symptoms develop and persist, get medical attention. Wash clothing before reuse.

Eye contact: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Ingestion: DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash point: 204.44 °C (399.99 °F) ; Estimated

Autoignition temperature: Not available

Flammable/Explosive limits - lower: Not available

Flammable/Explosive limits - upper: Not available

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. In case of fire, keep containers cool with water spray.

Unusual fire or explosion hazards: Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

Hazardous combustion products: Acids. Phenolics. Toxic fumes. Aldehydes. Oxides of carbon. Irritating organic fragments.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions: Follow all local, state, federal and provincial regulations for disposal.

Clean-up methods: Scrape up as much material as possible. Clean residue with soap and water. Store in a partly filled, closed container until disposal.

7. HANDLING AND STORAGE

Handling: Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Do not taste or swallow.

Storage: Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
Quartz (SiO ₂)	0.025 mg/m ³ TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable. 0.3 mg/m ³ TWA Total dust.	None	None
Calcium carbonate	10 mg/m ³ TWA Total dust.	5 mg/m ³ TWA Respirable fraction. 15 mg/m ³ TWA Total dust.	None	None

Engineering controls: Use local exhaust ventilation if the potential for airborne exposure exists.

Respiratory protection: Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection: Safety goggles or safety glasses with side shields.

Skin protection: Chemical resistant, impermeable gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Liquid, Paste
Color: Tan
Odor: Slight
Odor threshold: Not available
pH: Not available
Vapor pressure: Not available
Boiling point/range: Not available
Melting point/ range: Not available
Specific gravity: 1.56
Vapor density: Not available
Flash point: 204.44 °C (399.99 °F) ; Estimated
Flammable/Explosive limits - lower: Not available
Flammable/Explosive limits - upper: Not available
Autoignition temperature: Not available
Evaporation rate: Not available
Solubility in water: Insoluble
Partition coefficient (n-octanol/water): Not available
VOC content: 0 % (calculated)

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous reactions: Will not occur.

Hazardous decomposition products: None

Incompatible materials: Strong Lewis acids. Strong bases. Strong mineral acids. Strong oxidizing agents. Mercaptans. Amines.

Conditions to avoid: Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
Quartz (SiO ₂)	Known carcinogen.	Group 1	No
Calcium carbonate	No	No	No

Hazardous components	Health Effects/Target Organs
Epichlorohydrin-4,4'-isopropylidene diphenol resin	Allergen, Irritant
Quartz (SiO ₂)	Immune system, Lung, Some evidence of carcinogenicity
Calcium carbonate	Nuisance dust

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.
Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (epoxy resin)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (epoxy resin)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
Marine pollutant: epoxy resin
Exceptions: Classified per IMDG Amendment 34; Effective Jan 1, 2010.

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.
TSCA 12(b) Export Notification: None above reporting de minimus
CERCLA/SARA Section 302 EHS: None above reporting de minimus
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA 313: None above reporting de minimus
California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.
WHMIS hazard class: D.2.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: First issue.

Prepared by: . Regulatory Affairs

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Material Safety Data Sheet



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Product name: Loctite Marine Epoxy- Hardener

Product type: Epoxy Hardener

Item number: 1405604

Region: United States

Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

Contact information:
Telephone: 800.624.7767
Emergency telephone: 800.424.9300

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

Physical state: Liquid, Paste
Color: White
Odor: Amine

HMIS:

HEALTH: *3
FLAMMABILITY: 1
PHYSICAL HAZARD: 0
Personal Protection: See MSDS Section 8

DANGER: CAUSES EYE, SKIN AND RESPIRATORY TRACT BURNS.
MAY CAUSE ALLERGIC SKIN REACTION.
MAY BE HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN.

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects

Inhalation: Respiratory tract burns. May be harmful if inhaled. Shortness of breath. Coughing.
Skin contact: Causes skin burns. May be harmful if absorbed through skin. May cause allergic skin reaction. Itching. Rash. Pain and discomfort. Tissue damage.
Eye contact: Causes eye burns. Blurred vision. Excess tearing. Pain and discomfort. Tissue damage.
Ingestion: May be harmful if swallowed.

Existing conditions aggravated by exposure: Respiratory disorders. Eye disorders. Skin disorders. Skin allergies.

This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components	CAS NUMBER	%
Quartz (SiO ₂)	14808-60-7	30 - 60
Aliphatic amine	Unknown	10 - 30
Calcium carbonate	471-34-1	10 - 30
Benzyl alcohol	100-51-6	5 - 10
3- Aminomethyl-3,5,5-trimethylcyclohexylamine	2855-13-2	5 - 10
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	68479-04-9	5 - 10
Titanium dioxide	13463-67-7	1 - 5
2,4,6-Tris(dimethylaminomethyl)phenol	90-72-2	1 - 5
Propanediol-1,2	57-55-6	1 - 5
N-Aminoethylpiperazine	140-31-8	1 - 5
4-Tert-butylphenol	98-54-4	1 - 5

4. FIRST AID MEASURES

Inhalation:	If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms develop and persist, get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.
Eye contact:	Flush eye(s) immediately with plenty of water. Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Ingestion:	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get immediate medical attention.

5. FIRE FIGHTING MEASURES

Flash point:	96.11 °C (205°F) ; Estimated
Autoignition temperature:	Not available
Flammable/Explosive limits - lower:	Not available
Flammable/Explosive limits - upper:	Not available
Extinguishing media:	Use dry chemical, water spray or carbon dioxide. Alcohol-resistant foam.
Special firefighting procedures:	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear. Caution should be exercised when using water or foam as frothing may occur. In case of fire, keep containers cool with water spray.
Unusual fire or explosion hazards:	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat. Decomposition and combustion products may be toxic.
Hazardous combustion products:	Oxides of carbon. Oxides of nitrogen. Ammonia.

6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Follow all local, state, federal and provincial regulations for disposal.

7. HANDLING AND STORAGE

Handling:	Avoid breathing dust. Do not taste or swallow. Avoid contact with eyes, skin and clothing. Do not get in eyes. Do not get on skin or clothing. Keep container closed. Use only with adequate ventilation. Wash thoroughly after handling.
Storage:	Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.

Hazardous components	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Quartz (SiO ₂)	0.025 mg/m ³ TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable. 0.3 mg/m ³ TWA Total dust.	None	None
Aliphatic amine	None	None	None	None
Calcium carbonate	10 mg/m ³ TWA Total dust.	5 mg/m ³ TWA Respirable fraction. 15 mg/m ³ TWA Total dust.	None	None
Benzyl alcohol	None	None	10 ppm (44 mg/m ³) TWA	None
3- Aminomethyl-3,5,5-trimethylcyclohexylamine	None	None	None	None
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	None	None	None	None
Titanium dioxide	10 mg/m ³ TWA	15 mg/m ³ TWA Total dust.	None	None
2,4,6-Tris(dimethylaminomethyl)phenol	None	None	None	None
Propanediol-1,2	None	None	10 mg/m ³ TWA Aerosol.	None
N-Aminoethylpiperazine	None	None	None	None
4-Tert-butylphenol	None	None	None	None

Engineering controls:

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection:

Use NIOSH approved respirator if there is potential to exceed exposure limit(s).

Eye/face protection:

Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists.

Skin protection:

Chemical resistant, impermeable gloves. Neoprene gloves. Nitrile gloves. Butyl rubber gloves. Viton gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid, Paste
Color:	White
Odor:	Amine
Odor threshold:	Not available
pH:	Not available
Vapor pressure:	Not available
Boiling point/range:	Not available
Melting point/ range:	Not available
Specific gravity:	1.49
Vapor density:	Not available
Flash point:	96.11 °C (205°F) ; Estimated
Flammable/Explosive limits - lower:	Not available
Flammable/Explosive limits - upper:	Not available
Autoignition temperature:	Not available
Evaporation rate:	Not available
Solubility in water:	Not available
Partition coefficient (n-octanol/water):	Not available
VOC content:	0 %; 0 g/l (calculated)

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous reactions:	Will not occur.
Hazardous decomposition products:	None
Incompatible materials:	Strong Lewis acids. Strong mineral acids. Strong bases. Strong oxidizing agents. Chlorinated rubber. Reaction with epoxy resins and/or isocyanates in large amounts or under uncontrolled conditions releases considerable heat and may release acrid fumes. N-Nitrosamines.
Conditions to avoid:	Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Quartz (SiO ₂)	Known carcinogen.	Group 1	No
Aliphatic amine	No	No	No
Calcium carbonate	No	No	No
Benzyl alcohol	No	No	No
3- Aminomethyl-3,5,5-trimethylcyclohexylamine	No	No	No
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	No	No	No
Titanium dioxide	No	Group 2B	No
2,4,6-Tris(dimethylaminomethyl)phenol	No	No	No
Propanediol-1,2	No	No	No
N-Aminoethylpiperazine	No	No	No
4-Tert-butylphenol	No	No	No

Hazardous components	Health Effects/Target Organs
Quartz (SiO ₂)	Immune system, Lung, Some evidence of carcinogenicity
Aliphatic amine	No Data
Calcium carbonate	Nuisance dust
Benzyl alcohol	Allergen, Central nervous system, Corrosive, Irritant
3- Aminomethyl-3,5,5-trimethylcyclohexylamine	Irritant, Allergen, Corrosive, Lung
1,3-Propanediamine, N-[3-(tridecyloxy)propyl]-, branched	No Target Organs
Titanium dioxide	Irritant, Respiratory, Some evidence of carcinogenicity
2,4,6-Tris(dimethylaminomethyl)phenol	Irritant, Allergen
Propanediol-1,2	Irritant
N-Aminoethylpiperazine	Irritant, Corrosive, Allergen
4-Tert-butylphenol	Irritant, Allergen, Skin, Corrosive

12. ECOLOGICAL INFORMATION

Ecological information: Not available

13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Not a RCRA hazardous waste.

14. TRANSPORT INFORMATION

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Polyamines, liquid, corrosive, n.o.s. (aliphatic Amine, Isophoronediamine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III

International Air Transportation (ICAO/IATA)

Proper shipping name: Polyamines, liquid, corrosive, n.o.s. (aliphatic Amine, Isophoronediamine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III

Water Transportation (IMO/IMDG)

Proper shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S. (aliphatic Amine, Isophoronediamine)
Hazard class or division: 8
Identification number: UN 2735
Packing group: III

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12(b) Export Notification: None above reporting de minimus

CERCLA/SARA Section 302 EHS: None above reporting de minimus

CERCLA/SARA Section 311/312: Immediate Health, Delayed Health

CERCLA/SARA 313: None above reporting de minimus

California Proposition 65: This product contains a chemical known in the State of California to cause cancer. This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Canada Regulatory Information

CEPA DSL/NDL Status: One or more components are not listed on, and are not exempt from listing on either the Domestic Substances List or the Non-Domestic Substances List.

WHMIS hazard class: D.2.A, D.2.B, E

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: First issue.

Prepared by: Regulatory Affairs Specialist

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