Material Safety Data Sheet

Revision Number: 004.0 **Issue date:** 01/12/2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **Loctite(R) Fix(R) Steel Liquid**
Product type: Epoxy resin

IDH number: 702244
Item number: 97483_10256000
Region: United States

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

Contact information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS:

Physical state: Paste
Color: Gray
Odor: Mild

HEALTH: *2
FLAMMABILITY: 1
PHYSICAL HAZARD: 0
Personal Protection: See MSDS Section 8

WARNING: MAY CAUSE ALLERGIC SKIN REACTION.
MAY BE HARMFUL IF SWALLOWED.
MAY CAUSE EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

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

Potential Health Effects

Inhalation: Mild respiratory tract irritation. Coughing. Vapors and mists will irritate nose and throat and possibly eyes. Dusts from solid adhesive may cause irritation.

Skin contact: May cause allergic skin reaction. Itching. Moderate skin irritation. Redness. Contact at elevated temperatures may cause thermal burns.

Eye contact: Moderate eye irritation. Redness. Excess tearing. Contact at elevated temperatures may cause thermal burns. May cause eye injury.

Ingestion: May be harmful if swallowed. Nausea. Irritation and corrosive action can occur in the mouth, stomach tissue and digestive tract if swallowed.

Existing conditions aggravated by exposure: Eye, skin, and respiratory 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	%
Diiron trioxide	1309-37-1	30 - 60
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	30 - 60
Neopentyl glycol diglycidyl ether	17557-23-2	1 - 5
Manganese	7439-96-5	0.1 - 1

4. FIRST AID MEASURES

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

5. FIRE FIGHTING MEASURES

Flash point:	204 °C (399.2 °F) Pensky Martens closed cup
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. Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA). In case of fire, keep containers cool with water spray. Caution should be exercised when using water or foam as frothing may occur.
Unusual fire or explosion hazards:	Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous combustion products:	Oxides of carbon. Acids. Phenolics. Toxic fumes. Aldehydes. 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:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Scrape up as much material as possible. Clean residue with soap and water. Store in a closed container until ready for disposal.

7. HANDLING AND STORAGE

Handling:	Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. 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.

For information on product shelf life contact Henkel Customer Service at (800) 243-4874.

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
Diiron trioxide	5 mg/m3 TWA Respirable fraction.	10 mg/m3 TWA Fume.	None	None
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
Neopentyl glycol diglycidyl ether	None	None	None	None
Manganese	0.2 mg/m3 TWA (as Mn)	5 mg/m3 Ceiling (as Mn) Fume.	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: Paste
Color: Gray
Odor: Mild
Odor threshold: Not available
pH: Not available
Vapor pressure: Not applicable
Boiling point/range: Not applicable
Melting point/ range: Not available
Specific gravity: 2.352
Vapor density: > 1 (Air = 1)
Flash point: 204 °C (399.2 °F) Pensky Martens closed cup
Flammable/Explosive limits - lower: Not available
Flammable/Explosive limits - upper: Not available
Autoignition temperature: Not available
Evaporation rate: Less than butyl acetate.
Solubility in water: Insoluble
Partition coefficient (n-octanol/water): Not available
VOC content: < 1.0 %; < 10 g/l (value for resin and hardener together) (estimated)

10. STABILITY AND REACTIVITY

Stability: Stable

Hazardous reactions: Will not occur.

Hazardous decomposition products: None

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

Conditions to avoid: Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Diiron trioxide	No	No	No
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
Neopentyl glycol diglycidyl ether	No	No	No
Manganese	No	No	No

Hazardous components	Health Effects/Target Organs
Diiron trioxide	Allergen, Cardiac, Central nervous system, Irritant, Kidney, Liver, Lung
Epichlorohydrin-4,4'-isopropylidene diphenol resin	Allergen, Irritant
Neopentyl glycol diglycidyl ether	Allergen, Blood, Bone Marrow, Immune system, Irritant, Reproductive
Manganese	Immune system, Irritant, Lung, Nervous System, Reproductive, Respiratory

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. (Bisphenol-A Epichlorhydrine 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. (Bisphenol-A Epichlorhydrine resin)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III
Marine pollutant: Bisphenol-A Epichlorhydrine resin

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/NDSL 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: New Material Safety Data Sheet format. 2,3,8,11, and 14

Prepared by: Gary Pierson, Manager, Regulatory Affairs

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