

Material Safety Data Sheet

LOCTITE[®]

Revision Number: 002.0

Issue date: 09/23/2013

1. PRODUCT AND COMPANY IDENTIFICATION**Product name:** LOCTITE HYS 11C 4OZ PTA
Product type: Epoxy resin**IDH number:** 1373723
Item number: 1373435_1284593
Region: United States**Company address:**
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067**Contact information:**
Telephone: 860.571.5100
MEDICAL EMERGENCY Phone: Poison Control Center
1-877-671-4608 (toll free) or 1-303-592-1711
TRANSPORT EMERGENCY Phone: CHEMTREC
1-800-424-9300 (toll free) or 1-703-527-3887
Internet: www.henkelna.com**2. HAZARDS IDENTIFICATION****EMERGENCY OVERVIEW****Physical state:** Liquid
Color: Black
Odor: None**HMIS:****HEALTH:** *2
FLAMMABILITY: 1
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. May cause irritation to nose and throat. Coughing.
Skin contact: May cause allergic skin reaction. Moderate skin irritation. Itching. Redness.
Eye contact: Moderate eye irritation. Redness.
Ingestion: Not expected under normal conditions of use.**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	%
Talc	14807-96-6	30 - 60
Epichlorohydrin-4,4'-isopropylidene diphenol resin	25068-38-6	30 - 60
Phenol polymer with formaldehyde, glycidyl ether	28064-14-4	10 - 30
Carbon black	1333-86-4	0.1 - 1

4. FIRST AID MEASURES**Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. 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. If symptoms develop and persist, get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.
Eye contact:	Immediately flush eyes with plenty of water for at least 15 minutes. If symptoms develop and persist, 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. If symptoms develop and persist, get medical attention.

5. FIRE FIGHTING MEASURES

Flash point:	> 93 °C (> 199.4 °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.
Unusual fire or explosion hazards:	In case of fire, keep containers cool with water spray. Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.
Hazardous combustion products:	Oxides of carbon. Phenolics. Aldehydes. Toxic fumes. Irritating vapors.

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:	Ensure adequate ventilation. Wear appropriate personal protective equipment. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up spilled material and place in a closed container for disposal.

7. HANDLING AND STORAGE

Handling:	Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Use only with adequate ventilation. Keep container closed.
Storage:	Store in original container until ready to use. Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame. Protect from direct sunlight.

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
Talc	2 mg/m ³ TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m ³ TWA Respirable. 20 MPPCF TWA 0.3 mg/m ³ TWA Total dust.	None	50 ppm
Epichlorohydrin-4,4'-isopropylidene diphenol resin	None	None	None	None
Phenol polymer with formaldehyde, glycidyl ether	None	None	None	None
Carbon black	3 mg/m ³ TWA Inhalable fraction.	3.5 mg/m ³ PEL	None	None

Engineering controls:	Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established 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.
Skin protection:	Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Black
Odor:	None
Odor threshold:	Not available.
pH:	Not available.
Vapor pressure:	Not available.
Boiling point/range:	> 260.2 °C (> 500.4 °F)
Melting point/ range:	Not available.
Specific gravity:	1.58
Vapor density:	Not available.
Flash point:	> 93 °C (> 199.4 °F) Pensky Martens closed cup
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:	0.05 g/l EPA Method 24

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Oxides of carbon. Phenolics. Aldehydes. Toxic fumes. Irritating vapors.
Incompatible materials:	Oxidizing agents. Acids. Bases. Amines.
Conditions to avoid:	Keep away from heat, ignition sources and incompatible materials. Protect from direct sunlight.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Talc	No	No	No
Epichlorohydrin-4,4'-isopropylidene diphenol resin	No	No	No
Phenol polymer with formaldehyde, glycidyl ether	No	No	No
Carbon black	No	Group 2B	No

Hazardous components	Health Effects/Target Organs
Talc	Irritant, Lung, Some evidence of carcinogenicity
Epichlorohydrin-4,4'-isopropylidene diphenol resin	Allergen, Irritant
Phenol polymer with formaldehyde, glycidyl ether	Allergen, Irritant
Carbon black	Respiratory, Some evidence of carcinogenicity

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 Epichlorohydrin resin)
Hazard class or division: 9
Identification number: UN 3082
Packing group: III

Water Transportation (IMO/IMDG)

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

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 minimis
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA 313: None above reporting de minimis

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: 1,4,5,6,7,8,10,14

Prepared by: Rena Petrides, Regulatory Affairs Specialist

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Material Safety Data Sheet

LOCTITE[®]

Revision Number: 002.0

Issue date: 10/25/2012

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: LOCTITE HYS 11C 4OZ PTB
Product type: Epoxy Hardener

IDH number: 1373722
Item number: 1373435_1320207
Region: United States

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

Contact information:
 Telephone: 860.571.5100
 MEDICAL EMERGENCY Phone: Poison Control Center
 1-877-671-4608 (toll free) or 1-303-592-1711
 TRANSPORT EMERGENCY Phone: CHEMTREC
 1-800-424-9300 (toll free) or 1-703-527-3887
 Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION**EMERGENCY OVERVIEW**

Physical state: Viscous, Liquid
Color: Green
Odor: Ammoniacal, Strong

HMIS:

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

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

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

Potential Health Effects

Inhalation: Allergic respiratory reaction. May cause irritation to nose and throat. May cause respiratory tract irritation. May cause central nervous system effects with nausea, dizziness and headache.
Skin contact: May cause skin burns. May be harmful if absorbed through skin. Allergic skin reaction. Redness. Rash.
Eye contact: Causes eye burns. Redness. Tissue damage.
Ingestion: May cause burns of mouth and throat if swallowed. May be harmful if swallowed.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders. Skin allergies. Respiratory 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	%
Talc	14807-96-6	30 - 60
Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct	68610-56-0	10 - 30
Quartz (SiO ₂)	14808-60-7	10 - 30
Diethylenetriamine	111-40-0	10 - 30
4,4'-Isopropylidenediphenol	80-05-7	1 - 5

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:	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. Thoroughly clean shoes 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:	> 100 °C (> 212°F)
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.
Unusual fire or explosion hazards:	In case of fire, keep containers cool with water spray.
Hazardous combustion products:	Oxides of nitrogen. Oxides of carbon. Oxides of silicon. 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:	Store in a partly filled, closed container until disposal. Scrape up as much material as possible. Clean residue with soap and water. Immediately contact emergency personnel. Remove all sources of ignition.

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. Keep container closed. Use only with adequate ventilation.
Storage:	Store in original container until ready to use. 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
Talc	2 mg/m3 TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 20 MPPCF TWA 0.3 mg/m3 TWA Total dust.	None	50 ppm
Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct	None	None	None	None
Quartz (SiO ₂)	0.025 mg/m3 TWA Respirable fraction.	2.4 MPPCF TWA Respirable. 0.1 mg/m3 TWA Respirable. 0.3 mg/m3 TWA Total dust.	None	None
Diethylenetriamine	(SKIN) 1 ppm TWA	None	None	None
4,4'-Isopropylidenediphenol	None	None	None	None

- Engineering controls:** Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
- Respiratory protection:** If personal exposure cannot be controlled below applicable limits by ventilation, wear a properly fitted organic vapor/particulate respirator approved by NIOSH.
- 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:** Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. Butyl rubber gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|---|------------------------|
| Physical state: | Viscous, Liquid |
| Color: | Green |
| Odor: | Ammoniacal, Strong |
| Odor threshold: | Not available. |
| pH: | Not available. |
| Vapor pressure: | Not available. |
| Boiling point/range: | Not available. |
| Melting point/ range: | Not available. |
| Specific gravity: | 1.65 |
| Vapor density: | Not available. |
| Flash point: | > 100 °C (> 212°F) |
| 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: | 0.57 g/l EPA Method 24 |

10. STABILITY AND REACTIVITY

Stability:	Stable
Hazardous reactions:	Polymerization is a highly exothermic reaction and may generate sufficient heat to cause thermal decomposition and/or rupture containers.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Oxides of silicon. Irritating organic fragments.
Incompatible materials:	Strong bases. Strong oxidizing agents. Amines. Water Strong acids. Nitrites. Metals.
Conditions to avoid:	Avoid mixing resin (Part A) and curing agent (Part B) unless you plan to use immediately. Excessive heat. Avoid temperatures above 38°C (100°F). Store away from incompatible materials. Failure to observe these precautions may result in excessive heat build-up causing an exotherm.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Talc	No	No	No
Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct	No	No	No
Quartz (SiO ₂)	Known To Be Human Carcinogen.	Group 1	No
Diethylenetriamine	No	No	No
4,4'-Isopropylidenediphenol	No	No	No

Hazardous components	Health Effects/Target Organs
Talc	Irritant, Lung, Some evidence of carcinogenicity
Bisphenol A, epichlorohydrin polymer, diethylenetriamine adduct	No Records
Quartz (SiO ₂)	Immune system, Lung, Some evidence of carcinogenicity
Diethylenetriamine	Allergen, Irritant, Eyes
4,4'-Isopropylidenediphenol	Allergen, Blood, Irritant, Kidney, Reproductive, Spleen

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: Amines, liquid, corrosive, n.o.s. (Diethylenetriamine)

Hazard class or division: 8

Identification number: UN 2735

Packing group: III

International Air Transportation (ICAO/IATA)

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

Water Transportation (IMO/IMDG)

Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (Diethylenetriamine)
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 minimis
CERCLA/SARA Section 311/312: Immediate Health, Delayed Health
CERCLA/SARA 313: This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372). 4,4'-Isopropylidenediphenol (CAS# 80-05-7).
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, E

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: 1,2,4,5,7,8,9,10,15

Prepared by: Rena Petrides, Regulatory Affairs Specialist

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