



Revision Number: 005.0

Issue date: 07/02/2015

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	LOCTITE PE 3164 B known as Loctite(R) Encap(R) 3164 Epoxy Hardener	IDH number:	233577
Product type:	Epoxy Hardener	Item number:	39970
Restriction of Use:	None identified	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

DANGER: HARMFUL IF SWALLOWED OR IN CONTACT WITH SKIN.
CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.
MAY CAUSE AN ALLERGIC SKIN REACTION.
MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING
DIFFICULTIES IF INHALED.
MAY CAUSE DROWSINESS OR DIZZINESS.

HAZARD CLASS	HAZARD CATEGORY
ACUTE TOXICITY ORAL	4
ACUTE TOXICITY DERMAL	4
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE	3

PICTOGRAM(S)



Precautionary Statements

Prevention: Do not breathe vapors, mist, or spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, eye protection, and face protection. In case of inadequate ventilation wear respiratory protection.

Response: If SWALLOWED: Immediately call poison control or physician if you feel unwell. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison control center or physician. If skin irritation or rash occurs: Get medical attention. If experiencing respiratory symptoms: Call

Storage:
Disposal:

a poison center or physician. Wash contaminated clothing before reuse.
Store in a well-ventilated place. Keep container tightly closed. Store locked up.
Dispose of contents and/or container according to Federal, State/Provincial and local governmental regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

See Section 11 for additional toxicological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Component(s)	CAS Number	Percentage*
Di(2-ethylhexyl)phthalate	117-81-7	30 - 60
4-Nonylphenol, branched	84852-15-3	10 - 30
Substituted Piperazine	Proprietary	10 - 30
Triethylenetetramine	112-24-3	5 - 10
Substituted Amine	Proprietary	1 - 5
Diethylenetriamine	111-40-0	1 - 5
Substituted Piperazine	Proprietary	1 - 5

* Exact percentage is a trade secret. Concentration range is provided to assist users in providing appropriate protections.

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). 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 medical attention.
Symptoms:	See Section 11.

5. FIRE FIGHTING MEASURES

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:	Burning produces obnoxious and toxic fumes. Personnel in vicinity and downwind should be evacuated. Use of water may result in the formation of very toxic aqueous solutions. Do not allow run-off from fire fighting to enter drains or water courses.

Hazardous combustion products:

Oxides of carbon. Oxides of nitrogen. Aldehydes. Ammonia. Ketones. Nitric acid. 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. Do not taste or swallow. Use only with adequate ventilation. Keep container closed.

Storage:

Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Keep away from heat, spark and flame.

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 Component(s)	ACGIH TLV	OSHA PEL	AIHA WEEL	OTHER
Di(2-ethylhexyl)phthalate	5 mg/m ³ TWA	5 mg/m ³ PEL	None	None
4-Nonylphenol, branched	None	None	None	None
Substituted Piperazine	None	None	None	None
Triethylenetetramine	None	None	1 ppm (6 mg/m ³) TWA (SKIN)	None
Substituted Amine	None	None	None	None
Diethylenetriamine	1 ppm TWA (SKIN)	None	None	None
Substituted Piperazine	None	None	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. 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:

Low viscosity, Liquid

Color:

Amber

Odor:

Ammoniacal

Odor threshold:

Not available.

pH:

Not available.

Vapor pressure:

0.2 mm hg

Boiling point/range:

> 149 °C (> 300.2 °F)

Melting point/ range:	Not available.
Specific gravity:	1
Vapor density:	1.0
Flash point:	118.33 °C (244.99 °F) Closed cup
Flammable/Explosive limits - lower:	Not available.
Flammable/Explosive limits - upper:	Not available.
Autoignition temperature:	Not available.
Evaporation rate:	< 0.1 (Ether = 1)
Solubility in water:	Soluble
Partition coefficient (n-octanol/water):	Not available.
VOC content:	< 1 %; < 10 g/l Estimated
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
Hazardous reactions:	None under normal processing.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Aldehydes. Ammonia. Ketones. Nitric acid. Toxic fumes. Irritating vapors.
Incompatible materials:	Oxidizing agents. Acids. Bases. Sodium hypochlorite. Reactive metals. This product slowly corrodes copper, aluminum, zinc and galvanized surfaces. Do not mix this product with nitrites or other nitrosating agents because a carcinogenic nitrosamine may be formed.
Reactivity:	Not available.
Conditions to avoid:	Keep away from heat, ignition sources and incompatible materials.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:	Skin, Inhalation, Eyes, Ingestion
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Potential Health Effects/Symptoms

Inhalation: Mists, vapors or liquid may cause severe irritation or burns. May cause allergic respiratory reaction. Drowsiness. Dizziness.

Skin contact: Causes skin burns. May cause allergic skin reaction. Harmful in contact with skin.

Eye contact: Causes serious eye damage.

Ingestion: If ingested, severe burns of the mouth and throat may occur, as well as perforation of the esophagus and the stomach. Harmful if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Di(2-ethylhexyl)phthalate	Oral LD50 (RABBIT) = 33.9 g/kg Oral LD50 (RAT) = > 25 g/kg Dermal LD50 (RABBIT) = 25 g/kg	Central nervous system, Developmental, Kidney, Liver, Reproductive, Some evidence of carcinogenicity
4-Nonylphenol, branched	None	Irritant, Corrosive
Substituted Piperazine	None	Irritant, Corrosive, Allergen
Triethylenetetramine	None	Allergen, Corrosive, Developmental, Irritant, Mutagen
Substituted Amine	Oral LD50 (RAT) = 3,000 mg/kg	Irritant, Allergen
Diethylenetriamine	Oral LD50 (RAT) = 1,080 mg/kg Oral LD50 (RAT) = 2.33 g/kg Oral LD50 (RAT) Approximate 1,140 mg/kg	Allergen, Irritant, Eyes
Substituted Piperazine	None	Allergen, Central nervous system, Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Di(2-ethylhexyl)phthalate	Reasonably Anticipated to be a Human Carcinogen.	Group 2B	No
4-Nonylphenol, branched	No	No	No
Substituted Piperazine	No	No	No
Triethylenetetramine	No	No	No
Substituted Amine	No	No	No
Diethylenetriamine	No	No	No
Substituted Piperazine	No	No	No

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:	It is the responsibility of the user to determine if an item is hazardous as defined in the Resource Conservation and Recovery Act (RCRA) at the time of disposal. Product uses, transformations, mixtures, processes, etc., may render the resulting material hazardous, under the criteria of ignitability, corrosivity, reactivity and toxicity characteristics of the Toxicity Characteristics Leaching Procedure (TCLP) 40 CFR 261.20-24.

14. TRANSPORT INFORMATION

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

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

Proper shipping name:	Amines, liquid, corrosive, n.o.s. (Aminoethylpiperazine, Nonylphenol)
Hazard class or division:	8
Identification number:	UN 2735
Packing group:	III
Marine pollutant:	Nonylphenol
DOT Hazardous Substance(s):	Diethylhexyl phthalate

International Air Transportation (ICAO/IATA)

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

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:	Alkyl phenol (CAS# 84852-15-3).
CERCLA/SARA Section 302 EHS:	None above reporting de minimis
CERCLA/SARA Section 311/312:	Immediate Health, Delayed Health
CERCLA/SARA Section 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). Di(2-ethylhexyl)phthalate (CAS# 117-81-7).
CERCLA Reportable quantity:	Di(2-ethylhexyl)phthalate (CAS# 117-81-7) 100 lbs. (45.4 kg)
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.
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16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: New information added in Section(s): 15

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Issue date: 07/02/2015

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