Safety Data Sheet



Revision Number: 004.1

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:

Product type: Epoxy Restriction of Use: None Company address: Henkel Corporation One Henkel Way Rocky Hill, Connecticut 06067

LOCTITE 235598 known as Nordbak Fast Cure Pneu Wear Epoxy Hardener None identified

IDH number:

702205

Item number:96363_317000Region:United StatesContact information:Telephone:(860) 571-5100MEDICAL EMERGENCY Phone:Poison Control Center1-877-671-4608 (toll free) or 1-303-592-1711TRANSPORT EMERGENCY Phone:CHEMTREC1-800-424-9300 (toll free) or 1-703-527-3887Internet:www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW			
DANGER:	COMBUSTIBLE LIQUID.		
	CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.		
	MAY CAUSE AN ALLERGIC SKIN REACTION.		
	MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING		
	DIFFICULTIES IF INHALED.		

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	4
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1



Precautionary Statements

Prevention:	Keep away from heat, sparks, open flames, hot surfaces - no smoking. Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, clothing, eye and face protection. In case of inadequate ventilation wear respiratory protection.
Response:	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation or rash occurs: Get medical attention. If experiencing respiratory symptoms: Call a poison center or physician. Wash contaminated clothing before reuse. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.
Storage:	Store in a well-ventilated place. Keep cool. Store locked up.
Disposal:	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*	
Aluminium oxide	1344-28-1	60 - 100	
Silicon carbide	409-21-2	5 - 10	
Substituted Piperazine	Proprietary	5 - 10	
4,4'-Isopropylidenediphenol	80-05-7	5 - 10	
Nonylphenol	25154-52-3	1 - 5	
Diethylenetriamine	111-40-0	1 - 5	
Triethanolamine	102-71-6	1 - 5	
Aliphatic amine	Proprietary	1 - 5	
Alcohol derivative	Proprietary	0.1 - 1	
Benzyldimethylamine	103-83-3	0.1 - 1	
Piperazine	110-85-0	0.1 - 1	
1,4-Phenylenediamine-terephthaloyl chloride copolymer	26125-61-1	0.1 - 1	
Silane derivative	Proprietary	0.1 - 1	

* 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:	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:	Rinse immediately with plenty of water, also under the eyelids, 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.		

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:

Special firefighting procedures:

Closed containers may rupture (due to build up of pressure) when exposed to extreme heat.

Hazardous combustion products:

Oxides of carbon. Oxides of nitrogen. Ammonia. Phenolics. Nitric acid. 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:	Immediately contact emergency personnel. Remove all sources of ignition. Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Clean residue with soap and water. Store in a closed container until ready for disposal. Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.	

7. HANDLING AND STORAGE

 Handling:
 Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Keep container closed. Use only with adequate ventilation.

 Storage:
 Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials. Store away from heat, sparks, flames, or other sources of ignition.

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
Aluminium oxide	1 mg/m3 TWA Respirable fraction.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust.	None	None
Silicon carbide	3 mg/m3 TWA Respirable fraction. 10 mg/m3 TWA Inhalable fraction. 0.1 FIBERS/CM3 TWA Fiber.	5 mg/m3 PEL Respirable fraction. 15 mg/m3 PEL Total dust.	None	None
Substituted Piperazine	None	None	None	None
4,4'-Isopropylidenediphenol	None	None	None	None
Nonylphenol	None	None	None	None
Diethylenetriamine	1 ppm TWA (SKIN)	None	None	None
Triethanolamine	5 mg/m3 TWA	None	None	None
Aliphatic amine	None	None	None	None
Alcohol derivative	None	None	10 ppm (44.20 mg/m3) TWA	None
Benzyldimethylamine	None	None	None	None
Piperazine	0.03 ppm TWA (as piperazine) Inhalable fraction and vapor. (Respiratory sensitization) (Dermal sensitization)	None	None	None
1,4-Phenylenediamine-terephthaloyl chloride copolymer	None	None	None	None
Silane derivative	None	None	None	None

Engineering controls:

Respiratory protection:

Eye/face protection:

Skin protection:

Use local ventilation if general ventilation is insufficient to maintain vapor concentration below established exposure limits.

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

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

Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

9. PHYSICAL AND CHEMICAL PROPERTIES

Slight, Ammoniacal

Not available.

Not available.

Not available.

Not applicable

Not available.

Not available.

Not available.

Not available.

88 °C (190.4 °F) Pensky Martens closed cup

Paste

Blue

2.264

Physical state: Color: Odor: Odor threshold: pH: Vapor pressure: Boiling point/range: Boeific gravity: Vapor density: Flash point: Flammable/Explosive limits - lower: Flammable/Explosive limits - upper:

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Autoignition temperature:	Not available.
Flammability:	Not applicable
Evaporation rate:	Not available.
Solubility in water:	Slight
Solubility in water:	Slight
Partition coefficient (n-octanol/water):	Not available.
VOC content:	< 1.0 %; < 10 g/l (value for resin and hardener together) (estimated)
Viscosity:	Not available.
Decomposition temperature:	Not available.

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous decomposition products:	Oxides of carbon. Oxides of nitrogen. Ammonia. Phenolics. Nitric acid. Irritating vapors.
Incompatible materials:	Strong Lewis acids. Strong mineral acids. Strong bases. Strong oxidizing agents.
Reactivity:	Not available.
Conditions to avoid:	Store away from incompatible materials. Heat, flames, sparks and other sources of ignition.

11. TOXICOLOGICAL INFORMATION

Relevant routes of exposure:

Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation:	Mists, vapors or liquid may cause severe irritation or burns. May cause allergic respiratory reaction. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthma attack, could be immediate or delayed (up to several hours after exposure).
Skin contact:	Corrosive to skin. Causes skin burns. May cause allergic skin reaction.
Eye contact:	Causes serious eye damage.
Ingestion:	Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. May cause an aspiration hazard if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects	
Aluminium oxide	None	Irritant, Nuisance dust, Corrosive	
Silicon carbide	None	Nuisance dust	
Substituted Piperazine	None	Irritant, Corrosive, Allergen	
4,4'-Isopropylidenediphenol	Oral LD50 (Rat) = 4,100 mg/kg Oral LD50 (Rat) = 3,300 mg/kg Oral LD50 (Mouse) = 5,280 mg/kg Oral LD50 (Mouse) = 2,500 mg/kg Oral LD50 (Mouse) = 4,100 mg/kg	Allergen, Blood, Irritant, Kidney, Reproductive, Spleen	
Nonylphenol	Oral LD50 (Rat) = 1,600 mg/kg Dermal LD50 (Rabbit) = 2,140 mg/kg	Allergen, Corrosive, Irritant, Kidney	
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	
Triethanolamine	Oral LD50 (Rat) = 8.0 g/kg Dermal LD50 (Rabbit) = > 20,000 mg/kg	Irritant, Allergen	
Aliphatic amine	None	No Records	
Alcohol derivative	Oral LD50 (Rabbit) = 1,940 mg/kg Oral LD50 (Rat) = 1,230 - 3,100 mg/kg Oral LD50 (Mouse) = 1,580 mg/kg Oral LD50 (Rat) = 3,100 mg/kg Dermal LD50 (Rabbit) = 2,000 mg/kg	Allergen, Central nervous system, Corrosive, Irritant	
Benzyldimethylamine	None	Irritant, Corrosive, Allergen, Respiratory	
Piperazine	Oral LD50 (Rat) = 2,050 mg/kg Oral LD50 (Rat) = 4,900 mg/kg Oral LD50 (Mouse) = 1,900 mg/kg Oral LD50 (Mouse) = 2,730 mg/kg Oral LD50 (Mouse) = 6,200 mg/kg Oral LD50 (Mouse) = 7,000 mg/kg Oral LD50 (Mouse) = 8,500 mg/kg Oral LD50 (Mouse) = 13,200 mg/kg Oral LD50 (Mouse) = 22,350 mg/kg	Allergen, Corrosive, Gastrointestinal, Irritant, Kidney, Liver, Nervous System, Respiratory	
1,4-Phenylenediamine-terephthaloyl chloride copolymer	None	Irritant, Lung	
Silane derivative	None	Irritant, Allergen	

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Aluminium oxide	No	No	No
Silicon carbide	No	Group 2A	No
Substituted Piperazine	No	No	No
4,4'-Isopropylidenediphenol	No	No	No
Nonylphenol	No	No	No
Diethylenetriamine	No	No	No
Triethanolamine	No	No	No
Aliphatic amine	No	No	No
Alcohol derivative	No	No	No
Benzyldimethylamine	No	No	No
Piperazine	No	No	No
1,4-Phenylenediamine-terephthaloyl chloride copolymer	Reasonably Anticipated to be a Human Carcinogen.	No	No
Silane derivative	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

Hazardous waste number:

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

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 (4	
Proper shipping name:	Amines, solid, corrosive, n.o.s. (Aminoethylpiperazine, Diethylenetriamine)
Hazard class or division:	8
Identification number:	UN 3259
Packing group:	III
International Air Transportation (ICAO/IATA)	
Proper shipping name:	Amines, solid, corrosive, n.o.s. (Aminoethylpiperazine, Diethylenetriamine)
Hazard class or division:	8
Identification number:	UN 3259
Packing group:	III
Water Transportation (IMO/IMDG)	
Proper shipping name:	AMINES, SOLID, CORROSIVE, N.O.S. (Aminoethylpiperazine,
1 11 0	Diethylenetriamine)
Hazard class or division:	8
Identification number:	UN 3259
Packing group:	

15. REGULATORY INFORMATION

United States Regulatory Information

TSCA 8 (b) Inventory Status: TSCA 12 (b) Export Notification:	All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory. Alkyl phenol (CAS# 25154-52-3).
CERCLA/SARA Section 302 EHS: CERCLA/SARA Section 311/312: CERCLA/SARA Section 313:	Ethylene diamine (CAS# 107-15-3). Immediate Health, Delayed Health 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). Aluminium oxide (CAS# 1344-28-1). 4,4'-Isopropylidenediphenol (CAS# 80-05- 7). Nonylphenol (CAS# 25154-52-3).
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.

Additional Regulatory Information:	s product is controlled for export by the United States Department of Commerce. The ort Classification Control Number (ECCN) is 1C995.a.2.a	
Canada Regulatory Information		
CEPA DSI /NDSI Status	Contains one or more components listed on the Non-Domestic Substances List. All other	

 CEPA DSL/NDSL Status:
 Contains one or more components listed on the Non-Domestic Substances List. All other components are listed on or are exempt from listing on the Domestic Substances List. Components listed on the NDSL must be tracked by all Canadian Importers of Record as required by Environment Canada. They may be imported into Canada in limited quantities. Please contact Regulatory Affairs for additional details.

16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 15

Prepared by: Rebecca Coons, Regulatory Affairs Specialist

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