



Revision Number: 004.1

Issue date: 05/25/2016

1. PRODUCT AND COMPANY IDENTIFICATION

| | | | |
|-------------------------------|--|---------------------|---------------|
| Product name: | LOCTITE 235598 known as Nordbak Fast Cure Pneu Wear | IDH number: | 702205 |
| Product type: | Epoxy Hardener | Item number: | 96363_317000 |
| Restriction of Use: | None identified | Region: | United States |
| Company address: | Contact information: | | |
| Henkel Corporation | Telephone: +1 (860) 571-5100 | | |
| Henkel Way One | MEDICAL EMERGENCY Phone: Poison Control Center | | |
| Rocky Hill, Connecticut 06067 | 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: 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 |

PICTOGRAM(S)



Precautionary Statements

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|--------------------|--|
| 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 |
| Benzyl dimethylamine | 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. |
| 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:

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 |
| Benzyltrimethylamine | 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:

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. Safety showers and eye wash stations should be available.

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:

Paste

Color:

Blue

Odor:

Slight, Ammoniacal

Odor threshold:

Not available.

pH:

Not available.

Vapor pressure:

Not available.

Boiling point/range:

Not applicable

Melting point/ range:

Not available.

Specific gravity:

2.264

Vapor density:

Not available.

Flash point:

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

Flammable/Explosive limits - lower:

Not available.

Flammable/Explosive limits - upper:

Not available.

| | |
|---|---|
| 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. Elevated temperatures. |

11. TOXICOLOGICAL INFORMATION

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

Potential Health Effects/Symptoms

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|----------------------|--|
| 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 |
| Benzyl dimethylamine | 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 |
| Benzyl dimethylamine | 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, 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, 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, Diethylenetriamine)
Hazard class or division: 8
Identification number: UN 3259
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: Alkyl phenol (CAS# 25154-52-3).

CERCLA/SARA Section 302 EHS: Ethylene diamine (CAS# 107-15-3).

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). 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: This product is controlled for export by the United States Department of Commerce. The Export Classification Control Number (ECCN) is 1C995.a.2.a

Canada Regulatory Information

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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