



Revision Number: 002.1

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## 1. PRODUCT AND COMPANY IDENTIFICATION

<b>Product name:</b>	<b>NORDBAK UT/HI WEAR PART B</b>	<b>IDH number:</b>	728439
<b>Product type:</b>	Epoxy Hardener	<b>Item number:</b>	96392_00231000
		<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
Henkel Corporation	Telephone: 860.571.5100		
One Henkel Way	Emergency telephone: 860.571.5100		
Rocky Hill, Connecticut 06067	Internet: www.henkelna.com		

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

<b>Physical state:</b>	Paste	<b>HMIS:</b>	
<b>Color:</b>	Grey	<b>HEALTH:</b>	*3
<b>Odor:</b>	Slight, Ammoniacal	<b>FLAMMABILITY:</b>	1
		<b>PHYSICAL HAZARD:</b>	0
		<b>Personal Protection:</b>	See MSDS Section 8

**DANGER:** CAUSES EYE AND SKIN BURNS.  
HARMFUL IF INHALED.  
MAY CAUSE ALLERGIC SKIN REACTION.  
MAY BE HARMFUL IF SWALLOWED OR ABSORBED THROUGH SKIN.

**Relevant routes of exposure:** Eye contact, Ingestion, Inhalation, Skin contact

### Potential Health Effects

<b>Inhalation:</b>	Harmful by inhalation. Severe respiratory tract irritation. May cause irritation to nose and throat.
<b>Skin contact:</b>	May be harmful if absorbed through skin. Causes skin burns. Tissue damage. Sensitization. Allergic skin reaction. Itching. Rash. Redness.
<b>Eye contact:</b>	Corrosive to eyes. Burns. Tissue damage. Tearing. Redness. Pain and discomfort. Blurred vision. Corneal edema may give appearance of "blue haze" or "fog" around lights.
<b>Ingestion:</b>	May be harmful if swallowed. May cause burns of mouth and throat if swallowed. Ingestion may cause stomach ache and vomiting. May cause an aspiration hazard if swallowed. Aspirated material can enter the lungs and result in pneumonitis.

**Existing conditions aggravated by exposure:** Skin disorders. Skin allergies. Respiratory disorders. Eye disorders.

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	%
Aluminum oxide, fibrous	1344-28-1	30 - 60
Cycloaliphatic amine	Proprietary	10 - 30
4,4'-Methylenebis(cyclohexylamine)	1761-71-3	10 - 30
Silicon carbide	409-21-2	10 - 30
Silica, amorphous, fumed, crystal-free	112945-52-5	1 - 5
Substituted aminophenol	Proprietary	1 - 5
Calcium carbonate	471-34-1	1 - 5
Magnesium oxide	1309-48-4	1 - 5
Silicon dioxide	7631-86-9	1 - 5
Manganese dioxide	1313-13-9	1 - 5

### 4. FIRST AID MEASURES

<b>Inhalation:</b>	Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.
<b>Skin contact:</b>	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. If symptoms develop and persist, get medical attention.
<b>Eye contact:</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Keep individual calm. Get immediate medical attention.
<b>Notes to physician:</b>	None

### 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	121 °C (249.8 °F) Pensky Martens closed cup
<b>Autoignition temperature:</b>	Not available
<b>Flammable/Explosive limits - lower:</b>	Not available
<b>Flammable/Explosive limits - upper:</b>	Not available
<b>Extinguishing media:</b>	Water spray (fog), foam, dry chemical or carbon dioxide.
<b>Special firefighting procedures:</b>	Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
<b>Unusual fire or explosion hazards:</b>	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.
<b>Hazardous combustion products:</b>	Oxides of carbon. Oxides of nitrogen. Irritating organic fragments. Ammonia. Hydrogen cyanide. Irritating organic vapours.

### 6. ACCIDENTAL RELEASE MEASURES

Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.

<b>Environmental precautions:</b>	Do not empty into drains / surface water / ground water.
<b>Clean-up methods:</b>	Wear suitable protective clothing, gloves and eye/face protection. Soak up with inert absorbent. Store in a closed container until ready for disposal.

## 7. HANDLING AND STORAGE

**Handling:**

Use only with adequate ventilation. Avoid breathing dust. Do not taste or swallow. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling. Keep container closed.

**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
Aluminum oxide, fibrous	1 mg/m3 TWA Respirable fraction.	5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.	None	None
Cycloaliphatic amine	None	None	None	None
4,4'-Methylenebis(cyclohexylamine)	None	None	None	None
Silicon carbide	10 mg/m3 TWA Inhalable fraction. 3 mg/m3 TWA Respirable fraction.	5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.	None	None
Silica, amorphous, fumed, crystal-free	10 mg/m3 TWA Inhalable dust. 3 mg/m3 TWA Respirable fraction.	20 MPPCF TWA 0.8 mg/m3 TWA	None	None
Substituted aminophenol	None	None	None	None
Calcium carbonate	10 mg/m3 TWA Total dust.	5 mg/m3 TWA Respirable fraction. 15 mg/m3 TWA Total dust.	None	None
Magnesium oxide	10 mg/m3 TWA Inhalable fraction.	15 mg/m3 TWA Total particulate.	None	None
Silicon dioxide	6 mg/m3 TWA	20 MPPCF TWA 0.8 mg/m3 TWA	None	3 mg/m3 TWA Respirable fraction.
Manganese dioxide	0.2 mg/m3 TWA (as Mn)	5 mg/m3 Ceiling (as Mn)	None	None

**Engineering controls:**

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

**Respiratory protection:**

Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.

**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 impermeable gloves and protective clothing as necessary to prevent skin contact. Neoprene gloves. Butyl rubber gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:**

Paste

**Color:**

Grey

**Odor:**

Slight, Ammoniacal

**Odor threshold:**

Not available

**pH:**

Not available

**Vapor pressure:**

Not available

<b>Boiling point/range:</b>	Not available
<b>Melting point/ range:</b>	Not available
<b>Specific gravity:</b>	1.7911
<b>Vapor density:</b>	> 1
<b>Flash point:</b>	121 °C (249.8 °F) Pensky Martens closed cup
<b>Flammable/Explosive limits - lower:</b>	Not available
<b>Flammable/Explosive limits - upper:</b>	Not available
<b>Autoignition temperature:</b>	Not available
<b>Evaporation rate:</b>	Slower than butyl acetate.
<b>Solubility in water:</b>	Not available
<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>VOC content:</b>	< 1.0 %; < 10 g/l (value for resin and hardener together) (estimated)

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable
<b>Hazardous reactions:</b>	Will not occur.
<b>Hazardous decomposition products:</b>	Oxides of carbon. Oxides of nitrogen. Ammonia. Hydrogen cyanide.
<b>Incompatible materials:</b>	Strong Lewis acids. Strong mineral acids. Chlorinated rubber. Reaction with epoxy resins and/or isocyanates in large amounts or under uncontrolled conditions releases considerable heat and may release acid fumes. Nitrites. Nitrates.
<b>Conditions to avoid:</b>	Store away from incompatible materials.

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Aluminum oxide, fibrous	No	No	No
Cycloaliphatic amine	No	No	No
4,4'-Methylenebis(cyclohexylamine)	No	No	No
Silicon carbide	No	No	No
Silica, amorphous, fumed, crystal-free	No	No	No
Substituted aminophenol	No	No	No
Calcium carbonate	No	No	No
Magnesium oxide	No	No	No
Silicon dioxide	No	No	No
Manganese dioxide	No	No	No

Hazardous components	Health Effects/Target Organs
Aluminum oxide, fibrous	Irritant, Nuisance dust, Corrosive
Cycloaliphatic amine	Brain, Corrosive, Irritant, Liver, Lung, Muscle, Skin
4,4'-Methylenebis(cyclohexylamine)	Irritant, Allergen
Silicon carbide	Nuisance dust
Silica, amorphous, fumed, crystal-free	Nuisance dust
Substituted aminophenol	Irritant, Allergen
Calcium carbonate	Nuisance dust
Magnesium oxide	Blood, Central nervous system, Immune system, Irritant
Silicon dioxide	Nuisance dust
Manganese dioxide	Allergen, Immune system, Irritant, Lung, Nervous System, Reproductive, Respiratory

## 12. ECOLOGICAL INFORMATION

<b>Ecological information:</b>	Not available
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### 13. DISPOSAL CONSIDERATIONS

Information provided is for unused product only.

**Recommended method of disposal:** Dispose of according to Federal, State and local governmental regulations.

**Hazardous waste number:** Not a RCRA hazardous waste.

### 14. TRANSPORT INFORMATION

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

**Proper shipping name:** Amines, solid, corrosive, n.o.s. (aliphatic Amine)  
**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. (aliphatic Amine)  
**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. (aliphatic Amine)  
**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:** None above reporting de minimus

**CERCLA/SARA Section 302 EHS:** None above reporting de minimus

**CERCLA/SARA Section 311/312:** Immediate 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). Manganese dioxide (CAS# 1313-13-9).

**California Proposition 65:** This product contains a chemical known in the State of California to cause cancer.

#### Canada Regulatory Information

**CEPA DSL/NDL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

**WHMIS hazard class:** D.1.B, D.2.A, D.2.B, E

### 16. OTHER INFORMATION

**This material safety data sheet contains changes from the previous version in sections:** New Material Safety Data Sheet format., This Material Safety Data Sheet contains changes from the previous version in Section(s): 3, 14, 15

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