



Revision Number: 003.2

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## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Nordbak Brush Ceramic - White  
**Product type:** Epoxy Hardener  
**Company address:**  
 Henkel Corporation  
 One Henkel Way  
 Rocky Hill, Connecticut 06067

**IDH number:** 702211  
**Item number:** 96443\_301000  
**Region:** United States  
**Contact information:**  
 Telephone: 860.571.5100  
 Emergency telephone: 860.571.5100  
 Internet: www.henkelna.com

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

<b>Physical state:</b>	Liquid	<b>HEALTH:</b>	*3
<b>Color:</b>	Light yellow	<b>FLAMMABILITY:</b>	1
<b>Odor:</b>	Ammoniacal	<b>PHYSICAL HAZARD:</b>	0
		<b>Personal Protection:</b>	See MSDS Section 8

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

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

### Potential Health Effects

**Inhalation:** Allergic respiratory reaction. May cause respiratory tract irritation. May cause irritation to nose and throat.  
**Skin contact:** May cause skin burns. May cause allergic skin reaction. Rash. Redness. May be harmful if absorbed through skin.  
**Eye contact:** Severe eye irritation. Redness. Tissue damage. Tearing. Pain and discomfort. Corneal edema may give appearance of "blue haze" or "fog" around lights.  
**Ingestion:** May be harmful if swallowed. May cause burns of mouth and throat if swallowed.

**Existing conditions aggravated by exposure:** Eye, skin, and respiratory disorders. Skin allergies. Asthma.

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	%
Benzyl alcohol	100-51-6	30 - 60
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2	30 - 60
Diethylenetriamine	111-40-0	1 - 5
4,4'-Methylenebis(cyclohexylamine)	1761-71-3	1 - 5
Organic Acid	Unknown	1 - 5
4,4'-Isopropylidenediphenol	80-05-7	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. Get medical attention.
<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 medical attention.

#### 5. FIRE FIGHTING MEASURES

<b>Flash point:</b>	93 °C (199.4 °F) Setaflash 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.
<b>Hazardous combustion products:</b>	Oxides of carbon. Oxides of nitrogen. Ammonia. Phenolics. Nitric acid. Aldehydes. Nitrosamines. 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.

<b>Environmental precautions:</b>	Do not allow product to enter sewer or waterways.
<b>Clean-up methods:</b>	Remove all sources of ignition. Immediately contact emergency personnel. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Store in a closed container until ready for disposal.

#### 7. HANDLING AND STORAGE

<b>Handling:</b>	Do not taste or swallow. Avoid contact with eyes, skin and clothing. Do not breathe gas/fumes/vapor/spray. Use only with adequate ventilation. Keep container closed. Wash thoroughly after handling.
<b>Storage:</b>	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
Benzyl alcohol	None	None	10 ppm (44 mg/m3) TWA	None
Formaldehyde, polymer with benzenamine, hydrogenated	None	None	None	None
Diethylenetriamine	1 ppm TWA (SKIN)	None	None	None
4,4'-Methylenebis(cyclohexylamine)	None	None	None	None
Organic Acid	None	None	None	None
4,4'-Isopropylidenediphenol	None	None	None	None

**Engineering controls:** Use local exhaust ventilation if the potential for airborne exposure exists.

**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:** Chemical resistant, impermeable gloves.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Physical state:** Liquid  
**Color:** Light yellow  
**Odor:** Ammoniacal  
**Odor threshold:** Not available  
**pH:** Alkaline  
**Vapor pressure:** Not available  
**Boiling point/range:** 400 °C (752°F)  
**Melting point/ range:** Not available  
**Specific gravity:** 1.0616  
**Vapor density:** Not available  
**Flash point:** 93 °C (199.4 °F) Setaflash 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:** Partially soluble  
**Partition coefficient (n-octanol/water):** Not available  
**VOC content:** < 0.1 %; < 1 g/l (value for resin and hardener together)

## 10. STABILITY AND REACTIVITY

**Stability:** Stable

**Hazardous reactions:** Will not occur.

**Hazardous decomposition products:** None

**Incompatible materials:** Strong oxidizing agents. Strong reducing agents. Metals. Acids. Strong mineral acids. Strong bases. Peroxides.

**Conditions to avoid:** Store away from incompatible materials. Excessive heat.

## 11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Benzyl alcohol	No	No	No
Formaldehyde, polymer with benzenamine, hydrogenated	No	No	No
Diethylenetriamine	No	No	No
4,4'-Methylenebis(cyclohexylamine)	No	No	No
Organic Acid	No	No	No
4,4'-Isopropylidenediphenol	No	No	No

Hazardous components	Health Effects/Target Organs
Benzyl alcohol	Allergen, Central nervous system, Corrosive, Irritant
Formaldehyde, polymer with benzenamine, hydrogenated	No Records
Diethylenetriamine	Allergen, Irritant, Eyes
4,4'-Methylenebis(cyclohexylamine)	Irritant, Allergen
Organic Acid	No Data
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, 4,4-methylenebis-cyclohexylamine)  
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, 4,4-methylenebis-cyclohexylamine)  
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, 4,4-methylenebis-cyclohexylamine)  
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 minimus  
**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:** No California Proposition 65 listed chemicals are known to be present.

#### 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: New Material Safety Data Sheet format.

**Prepared by:** Gary Pierson, Manager, Regulatory Affairs

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