



Revision Number: 007.0

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**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product name:</b>	<b>LOCTITE PC 7228 PART B known as Nordbak Brush Ceramic - White</b>	<b>IDH number:</b>	702211
<b>Product type/use:</b>	Epoxy Hardener	<b>Item number:</b>	96443_301000
<b>Restriction of Use:</b>	None identified	<b>Region:</b>	United States
<b>Company address:</b>	<b>Contact information:</b>		
Henkel Corporation	Telephone: +1 (860) 571-5100		
One Henkel Way	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	
<b>DANGER:</b>	<p>COMBUSTIBLE LIQUID.                      CAUSES SEVERE SKIN BURNS AND EYE DAMAGE.                      MAY CAUSE AN ALLERGIC SKIN REACTION.                      TOXIC IF INHALED.                      MAY CAUSE ALLERGY OR ASTHMA SYMPTOMS OR BREATHING DIFFICULTIES IF INHALED.                      SUSPECTED OF DAMAGING FERTILITY OR THE UNBORN CHILD.</p>

HAZARD CLASS	HAZARD CATEGORY
FLAMMABLE LIQUID	4
ACUTE TOXICITY INHALATION	3
SKIN CORROSION	1B
SERIOUS EYE DAMAGE	1
RESPIRATORY SENSITIZATION	1
SKIN SENSITIZATION	1
REPRODUCTIVE TOXICITY	2



**Precautionary Statements**

<b>Prevention:</b>	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks, open flames, hot surfaces - no smoking. Avoid breathing vapors, mist, or spray. Wash affected area thoroughly after handling. Use only outdoors or in a well-ventilated area. 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.
<b>Response:</b>	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 exposed or concerned: Get medical attention. If skin irritation or rash occurs: Get medical attention. Wash contaminated clothing before reuse. In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.
<b>Storage:</b>	Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up.
<b>Disposal:</b>	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*
Formaldehyde, polymer with benzenamine, hydrogenated	135108-88-2	30 - 60
benzyl alcohol	100-51-6	30 - 60
Diethylenetriamine	111-40-0	5 - 10
4,4'-Methylenebis(cyclohexylamine)	1761-71-3	1 - 5
4,4'-Isopropylidenediphenol	80-05-7	1 - 5
salicylic acid	69-72-7	1 - 5

\* Exact percentages may vary or are trade secret. Concentration range is provided to assist users in providing appropriate protections.

### 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. Get medical attention.
<b>Eye contact:</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
<b>Ingestion:</b>	DO NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
<b>Symptoms:</b>	See Section 11.

### 5. FIRE FIGHTING MEASURES

<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. 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. 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. 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

<b>Handling:</b>	Do not taste or swallow. Use only with adequate ventilation. Keep container closed. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Refer to Section 8.
<b>Storage:</b>	Store away from heat, sparks, flames, or other sources of ignition. Keep container tightly closed and in a cool, well-ventilated place away from incompatible materials.

## 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
Formaldehyde, polymer with benzenamine, hydrogenated	None	None	None	None
benzyl alcohol	None	None	10 ppm (44.20 mg/m <sup>3</sup> ) TWA	None
Diethylenetriamine	1 ppm TWA (SKIN)	None	None	None
4,4'-Methylenebis(cyclohexylamine)	None	None	None	None
4,4'-Isopropylidenediphenol	None	None	None	None
salicylic acid	None	None	None	None

<b>Engineering controls:</b>	Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.
<b>Respiratory protection:</b>	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
<b>Eye/face protection:</b>	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.
<b>Skin protection:</b>	Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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

## 10. STABILITY AND REACTIVITY

<b>Stability:</b>	Stable under normal conditions of storage and use.
<b>Hazardous reactions:</b>	None under normal processing.
<b>Hazardous decomposition products:</b>	Oxides of carbon and nitrogen, aldehydes, acids and undetermined organics. Ammonia. Phenolics. Nitrosamines. Aldehydes.
<b>Incompatible materials:</b>	Strong oxidizing agents. Strong reducing agents. Metals. Acids. Strong mineral acids. Strong bases. Peroxides. Amines.
<b>Reactivity:</b>	Not available.
<b>Conditions to avoid:</b>	Store away from incompatible materials. Excessive heat. Heat, flames, sparks and other sources of ignition.

## 11. TOXICOLOGICAL INFORMATION

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

### Potential Health Effects/Symptoms

<b>Inhalation:</b>	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). May cause dizziness, incoordination, headache, nausea, and vomiting.
<b>Skin contact:</b>	Corrosive to skin. Causes skin burns. May cause allergic skin reaction.
<b>Eye contact:</b>	Causes serious eye damage.
<b>Ingestion:</b>	May cause burns of mouth and throat if swallowed. Irritation and corrosive action can occur in the mouth, stomach tissue and digestive tract if swallowed.

Hazardous Component(s)	LD50s and LC50s	Immediate and Delayed Health Effects
Formaldehyde, polymer with benzenamine, hydrogenated	None	No Records
benzyl alcohol	Oral LD50 (Mouse) = 1,580 mg/kg Oral LD50 (Rat) = 1,230 - 3,100 mg/kg Oral LD50 (Rabbit) = 1,940 mg/kg Oral LD50 (Rat) = 3,100 mg/kg Dermal LD50 (Rabbit) = 2,000 mg/kg Inhalation LC50 (Rat, 4 h) = 8.8 mg/l Inhalation LC50 (Rat, 4 h) = > 4,178 mg/l	Allergen, Central nervous system, Corrosive, Irritant
Diethylenetriamine	Oral LD50 (Rat) Approximate 1,140 mg/kg Oral LD50 (Rat) = 1,080 mg/kg Oral LD50 (Rat) = 2.33 g/kg	Allergen, Irritant, Eyes
4,4'-Methylenebis(cyclohexylamine)	None	Irritant, Allergen
4,4'-Isopropylidenediphenol	Oral LD50 (Rat) = 4,100 mg/kg Oral LD50 (Rat) = 3,300 mg/kg	Allergen, Blood, Irritant, Kidney, Reproductive, Spleen
salicylic acid	Oral LD50 (Rat) = 891 mg/kg Oral LD50 (Mouse) = 480 mg/kg Dermal LD50 (Rat) = > 2 g/kg	Irritant

Hazardous Component(s)	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Formaldehyde, polymer with benzenamine, hydrogenated	No	No	No
benzyl alcohol	No	No	No
Diethylenetriamine	No	No	No
4,4'-Methylenebis(cyclohexylamine)	No	No	No
4,4'-Isopropylidenediphenol	No	No	No
salicylic acid	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.

## 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. (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 as active or are exempt from listing on the Toxic Substances Control Act (TSCA) inventory.

**TSCA 12 (b) Export Notification:** None above reporting de minimis

**CERCLA/SARA Section 302 EHS:** None above reporting de minimis.  
**CERCLA/SARA Section 311/312:** Immediate Health, Delayed Health, Fire  
**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). 4,4'-Isopropylidenediphenol (CAS# 80-05-7).  
**CERCLA Reportable quantity:** 4,4'-Methylenedianiline (CAS# 101-77-9) 10 lbs. (4.54 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/NDSL Status:** All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

## 16. OTHER INFORMATION

This safety data sheet contains changes from the previous version in sections: 2,3,8,10,11,13,14,15

**Prepared by:** Product Safety and Regulatory Affairs

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