Material Safety Data Sheet

Revision Number: 003.0 **Issue date:** 01/13/2010

1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **Nordbak HighTemp Brush Ceramic**
Product type: Epoxy resin

IDH number: 702208
Item number: 96433_10330000
Region: United States

Company address:
Henkel Corporation
One Henkel Way
Rocky Hill, Connecticut 06067

Contact information:
Telephone: 860.571.5100
Emergency telephone: 860.571.5100
Internet: www.henkelna.com

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

HMIS:

Physical state: Paste
Color: Gray
Odor: Slight

HEALTH: *2
FLAMMABILITY: 1
PHYSICAL HAZARD: 1
Personal Protection: See MSDS Section 8

WARNING: CAUSES EYE IRRITATION.
MAY CAUSE ALLERGIC SKIN REACTION.
MAY CAUSE SKIN AND RESPIRATORY TRACT IRRITATION.

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

Potential Health Effects

Inhalation: Mild respiratory tract irritation. Coughing.
Skin contact: May cause allergic skin reaction. Itching. Rash. Moderate skin irritation. Redness. Prolonged contact with skin may cause dermatitis.
Eye contact: May cause severe eye irritation. May cause eye injury. Blurred vision. Excess tearing. Pain and discomfort. Redness.
Ingestion: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Existing conditions aggravated by exposure: Eye, skin, and respiratory disorders. Eczema. Pre-existing skin or lung allergies may increase the chance of developing exaggerated allergic symptoms from exposure to this product. Asthma. Dermatitis.

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	%
Silicon carbide	409-21-2	30 - 60
4,4'-Methylenebis[N,N-bis(2,3-epoxypropyl)aniline]	28768-32-3	30 - 60
Trimethylolpropane triglycidyl ether	30499-70-8	10 - 30
Castor oil, hydrogenated	8001-78-3	1 - 5
Diiron trioxide	1309-37-1	1 - 5
Organophilic Clay	71011-26-2	1 - 5
Cristobalite	14464-46-1	0.1 - 1

4. FIRST AID MEASURES

Inhalation:	Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention.
Skin contact:	Immediately flush skin with plenty of water (using soap, if available). Remove contaminated clothing and footwear. Thoroughly clean shoes before reuse. Wash clothing before reuse. If symptoms develop and persist, get medical attention.
Eye contact:	Check for and remove any contact lenses. Immediately flush eyes with plenty of water 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. If symptoms develop and persist, get medical attention.

5. FIRE FIGHTING MEASURES

Flash point:	> 93 °C (> 199.4 °F) Pensky Martens closed cup
Autoignition temperature:	Not available
Flammable/Explosive limits - lower:	Not available
Flammable/Explosive limits - upper:	Not available
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. Caution should be exercised when using water or foam as frothing may occur.
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. Oxides of sulfur. Oxides of silicon. Aldehydes. Acids. Ammonia. Toxic chlorides. Toxic fumes.

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:	Ensure adequate ventilation. Scrape up as much material as possible. Clean residue with soap and water. Store in a partly filled, closed container until disposal.

7. HANDLING AND STORAGE

Handling:	Use only with adequate ventilation. Avoid contact with eyes, skin and clothing. Do not breathe gas/fumes/vapor/spray. Do not taste or swallow. Wash thoroughly after handling. Keep container closed.
Storage:	For safe storage, store at or below 4.4 °C (39.9 °F) 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
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
4,4'-Methylenebis[N,N-bis(2,3-epoxypropyl)aniline]	None	None	None	None
Trimethylolpropane triglycidyl ether	None	None	None	None
Castor oil, hydrogenated	None	None	None	None
Diiron trioxide	5 mg/m3 TWA Respirable fraction.	10 mg/m3 TWA Fume.	None	None
Organophilic Clay	None	None	None	None
Cristobalite	0.025 mg/m3 TWA Respirable fraction.	1.2 MPPCF TWA Respirable. 0.05 mg/m3 TWA Respirable. 0.15 mg/m3 TWA Total dust.	None	None

Engineering controls: Local exhaust ventilation is recommended when general ventilation is not sufficient to control airborne contamination below occupational 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.

Skin protection: Chemical resistant, impermeable gloves.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Paste
Color: Gray
Odor: Slight
Odor threshold: Not available
pH: Not available
Vapor pressure: Not applicable
Boiling point/range: Not available
Melting point/ range: Not available
Specific gravity: 1.6689
Vapor density: > 1 (Air = 1)
Flash point: > 93 °C (> 199.4 °F) Pensky Martens closed cup
Flammable/Explosive limits - lower: Not available
Flammable/Explosive limits - upper: Not available
Autoignition temperature: Not available
Evaporation rate: Greater than butyl acetate.
Solubility in water: Insoluble
Partition coefficient (n-octanol/water): Not available
VOC content: 0 %; 0 g/l (value for resin and hardener together) (estimated)

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of storage and use.

Hazardous reactions: May occur.

Hazardous decomposition products: Oxides of carbon. Oxides of nitrogen. Oxides of sulfur. Oxides of silicon. Aldehydes. Acids. Ammonia. Toxic chlorides. Toxic fumes.

Incompatible materials: Strong acids. Strong bases. Strong oxidizing agents. Amines. Mercaptans. Moisture. Strong alkalis.

Conditions to avoid: Direct sunlight. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

11. TOXICOLOGICAL INFORMATION

Hazardous components	NTP Carcinogen	IARC Carcinogen	OSHA Carcinogen (Specifically Regulated)
Silicon carbide	No	No	No
4,4'-Methylenebis[N,N-bis(2,3-epoxypropyl)aniline]	No	No	No
Trimethylolpropane triglycidyl ether	No	No	No
Castor oil, hydrogenated	No	No	No
Diiron trioxide	No	No	No
Organophilic Clay	No	No	No
Cristobalite	Known carcinogen.	Group 1	No

Hazardous components	Health Effects/Target Organs
Silicon carbide	Nuisance dust
4,4'-Methylenebis[N,N-bis(2,3-epoxypropyl)aniline]	Allergen, Blood, Central nervous system, Gastrointestinal, Irritant, Kidney, Liver, Mutagen, Nervous System
Trimethylolpropane triglycidyl ether	Irritant, Allergen
Castor oil, hydrogenated	No Target Organs
Diiron trioxide	Allergen, Cardiac, Central nervous system, Irritant, Kidney, Liver, Lung
Organophilic Clay	No Target Organs
Cristobalite	Carcinogen, Immune system, Kidney, Lung

12. ECOLOGICAL INFORMATION

Ecological information: Not available

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: Not regulated
Hazard class or division: None
Identification number: None
Packing group: None

International Air Transportation (ICAO/IATA)

Proper shipping name:	Environmentally hazardous substance, liquid, n.o.s. (Tetraglycidyl diaminodiphenylmethane)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III

Water Transportation (IMO/IMDG)

Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Tetraglycidyl diaminodiphenylmethane)
Hazard class or division:	9
Identification number:	UN 3082
Packing group:	III
Marine pollutant:	Tetraglycidyl diaminodiphenylmethane

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:	None above reporting de minimus
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.
WHMIS hazard class:	D.2.A, D.2.B

16. OTHER INFORMATION

This material safety data sheet contains changes from the previous version in sections: New Material Safety Data Sheet format. 1,2,3,7,8,10, 11,14,15

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