

# Material Safety Data Sheet

ID: NAC-0001

Material Name: NBD 200

## \*\*\* Section 1 - Chemical Product and Company Identification \*\*\*

Chemical Name: Mixture.

Product Use: Not intended for food and drug use.

**Manufacturer Information**

Saint-Gobain Industrial Ceramics, Inc.

10 Airport Park Road

East Granby, CT 06026

Phone: (860) 653-8071

Fax: (860) 653-6834

Emergency # (508) 795-2736

## \*\*\* Section 2 - Composition / Information on Ingredients \*\*\*

CAS #	Component	Percent
12033-89-5	Silicon nitride	85-95
7631-86-9	Silica, amorphous	<5
1309-48-4	Magnesium oxide	1-3
25086-89-9	Polyvinyl pyrrolidone - Vinyl acetate copolymer	1-3
67-63-0	Isopropyl alcohol	0.5-1.5

**Component Information/Information on Non-Hazardous Components**

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

## \*\*\* Section 3 - Hazards Identification \*\*\*

**Emergency Overview**

This is a non-flammable, non-reactive material. It is supplied in the form of a powder. Exposure to dust may be irritating to eyes, nose and throat. At very high exposure levels the dust may have an effect on the lungs.

**Potential Health Effects: Eyes**

This product may cause eye irritation. Dust or powder may irritate eye tissue. Abrasive action may cause damage to the outer surface of the eye. Symptoms may include stinging, tearing, redness, swelling, and blurred vision.

**Potential Health Effects: Skin**

This product may cause irritation to the skin. Dust or powder may cause irritation or injury due to mechanical action.

**Potential Health Effects: Ingestion**

Ingestion of this product may cause nausea, vomiting and diarrhea.

**Potential Health Effects: Inhalation**

Dusts of this product may cause irritation of the nose, throat, and respiratory tract. Repeated overexposure to dusts of this product may result in lung damage.

HMIS Ratings: Health: 1 Fire: 0 Reactivity: 0 Pers. Prot.: safety glasses, gloves

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe \* = Chronic hazard

## \*\*\* Section 4 - First Aid Measures \*\*\*

**First Aid: Eyes**

Flush immediately with water for at least 15 minutes. Do not rub eyes. If irritation persists get medical attention.

**First Aid: Skin**

For skin contact, flush with large amounts of water. If irritation persists, get medical attention.

**First Aid: Ingestion**

If material is ingested, immediately contact a physician or poison control center. DO NOT induce vomiting unless directed to do so by medical personnel.

**First Aid: Inhalation**

Move person to non-contaminated air. If symptoms persist, get medical attention.

**First Aid: Notes to Physician**

None.

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## \*\*\* Section 5 - Fire Fighting Measures \*\*\*

Flash Point: Not available  
Upper Flammable Limit (UFL): Not available  
Auto Ignition: Not available  
Rate of Burning: Not available  
General Fire Hazards

Method Used: Not available  
Lower Flammable Limit (LFL): Not available  
Flammability Classification: Non-flammable

None.

### Hazardous Combustion Products

Upon decomposition, this product emits oxides of silicon and nitrogen, ammonia, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

### Extinguishing Media

Use methods for the surrounding fire.

### Fire Fighting Equipment/Instructions

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask.

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0 Other:

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

## \*\*\* Section 6 - Accidental Release Measures \*\*\*

### Containment Procedures

None necessary.

### Clean-Up Procedures

Sweep up or gather material and place in appropriate container for disposal.

### Evacuation Procedures

None necessary.

### Special Procedures

Follow all Local, State, Federal and Provincial regulations for disposal.

## \*\*\* Section 7 - Handling and Storage \*\*\*

### Handling Procedures

Wash thoroughly after handling. Avoid breathing dusts from this material. Avoid contact with skin and eyes. Use this product with adequate ventilation.

### Storage Procedures

Keep the container tightly closed and in a cool, well-ventilated place. Keep the container dry.

## \*\*\* Section 8 - Exposure Controls / Personal Protection \*\*\*

### Exposure Guidelines

**A: General Product Information**  
Keep formation of airborne dusts to a minimum.  
**B: Component Exposure Limits**  
Silica, amorphous (7631-86-9)  
NIOSH: 6 mg/m<sup>3</sup> TWA  
Magnesium oxide (1309-48-4)  
ACGIH: 10 mg/m<sup>3</sup> TWA  
OSHA: total particulate: 10 mg/m<sup>3</sup> TWA  
NIOSH: no established RELs - see Appendix D

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Isopropyl alcohol (67-63-0)

ACGIH: (400) ppm TWA; (983) mg/m<sup>3</sup> TWA  
(500) ppm STEL; (1230) mg/m<sup>3</sup> STEL

OSHA: 400 ppm TWA; 980 mg/m<sup>3</sup> TWA  
500 ppm STEL; 1225 mg/m<sup>3</sup> STEL

NIOSH: 400 ppm TWA; 980 mg/m<sup>3</sup> TWA  
500 ppm STEL; 1225 mg/m<sup>3</sup> STEL

## C: Exposure Limits for Chemicals Produced in Use.

This material has no components listed.

### Engineering Controls

Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

### PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment: Eyes/Face

Wear safety glasses with side shields.

Personal Protective Equipment: Skin

Use impervious gloves.

Personal Protective Equipment: Respiratory

If ventilation is not sufficient to effectively prevent buildup of dust, appropriate NIOSH respiratory protection must be provided.

Personal Protective Equipment: General

Use good industrial hygiene practices in handling this material.

## \*\*\* Section 9 - Physical & Chemical Properties \*\*\*

Appearance: Powder  
Physical State: solid (powder)  
Vapor Pressure: Not applicable  
Boiling Point: Not applicable  
Solubility (H<sub>2</sub>O): Not available  
Evaporation Rate: Not applicable

Odor: Not available  
pH: Not available  
Vapor Density: Not applicable  
Melting Point: Not applicable  
Specific Gravity: Not available

## \*\*\* Section 10 - Chemical Stability & Reactivity Information \*\*\*

### Chemical Stability

Stable under normal conditions.

### Chemical Stability: Conditions to Avoid

Avoid strong oxidizing agents.

### Incompatibility

This product may react with strong acids or oxidizing agents.

### Hazardous Decomposition

Upon decomposition, this product emits oxides of silicon and nitrogen, ammonia, carbon monoxide, carbon dioxide and/or low molecular weight hydrocarbons.

### Hazardous Polymerization

Hazardous polymerization will not occur.

## \*\*\* Section 11 - Toxicological Information \*\*\*

### Acute Toxicity

#### A: General Product Information

Product in powdered form is considered a nuisance dust. Excessive airborne concentrations of nuisance dusts may cause irritation to skin or mucous membranes by chemical or mechanical action. Asthma or chronic respiratory conditions may be

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aggravated by exposure to this product. Silicon dioxide is an irritant to eyes, skin and respiratory system. Amorphous silica is chemically and biologically inert when ingested. Silica exists in multiple forms, but is effective in producing silicosis only in its crystalline forms. This product contains non-crystalline forms of silica. This product contains magnesium oxide. Exposure to magnesium oxide fume may result in metal fume fever. Metal fume fever is a temporary flu-like condition characterized by chills, fever, muscle aches and pains, nausea and vomiting. Typically the symptoms appear within a few hours after exposure and subside within 2-3 days with no permanent effects.

**B: Component Analysis - LD50/LC50**

Polyvinyl pyrrolidone - Vinyl acetate copolymer (25086-89-9)

Oral LD50 Rat : >630 mg/kg

Isopropyl alcohol (67-63-0)

Inhalation LC50 Rat : 16000 ppm/8H

Oral LD50 Rat : 5045 mg/kg

Oral LD50 Mouse : 3600 mg/kg

Dermal LD50 Rabbit : 12800 mg/kg

**Carcinogenicity**

**A: General Product Information**

No information available.

**B: Component Carcinogenicity**

Silica, amorphous (7631-86-9)

IARC: Monograph 68; 1997 (Group 3 (not classifiable))

Isopropyl alcohol (67-63-0)

IARC: Monograph 15, Supplement 7; Monograph 71; 1998 (Group 3 (not classifiable))

**Epidemiology**

No information available.

**Neurotoxicity**

No information available.

**Mutagenicity**

No information available.

**Teratogenicity**

No information available.

**\*\*\* Section 12 - Ecological Information \*\*\***

**Ecotoxicity**

**A: General Product Information**

No information available.

**B: Component Analysis - Ecotoxicity - Aquatic Toxicity**

Isopropyl alcohol (67-63-0)

LC50 (96 hr) fathead minnow (29 days old): 94900-10400 mg/L. Cond: Flow-through, 24.4-24.6 degrees C, pH 7.09, 52.5 mg/L CaCO3.; LC50 (96 hr) fathead minnow (31 days old): 61200-65500 mg/L. Cond: Flow-through, 24.6 degrees C, pH 7.87, 44 CaCO3.; EC50 (5 min) Photobacterium phosphoreum: 35390 ppm Microtox test.

**Environmental Fate**

No information available.

**\*\*\* Section 13 - Disposal Considerations \*\*\***

**US EPA Waste Number & Descriptions**

**A: General Product Information**

Wastes must be tested using methods described in 40 CFR Part 261 to determine if it meets applicable definitions of hazardous wastes.

**B: Component Waste Numbers**

No EPA Waste Numbers are applicable for this product's components.

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## Disposal Instructions

Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.

### \*\*\* Section 14 - Transportation Information \*\*\*

#### US DOT Information

Shipping Name: Not regulated as dangerous goods.

Hazard Class: None

UN/NA #: None

Packing Group: None

Required Label(s): None

Additional Info.: None.

#### International Transportation Regulations.

No additional information available.

### \*\*\* Section 15 - Regulatory Information \*\*\*

#### US Federal Regulations

##### A: General Product Information

No information available.

##### B: Component Analysis

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Isopropyl alcohol (67-63-0)

SARA 313: form R reporting required for 1.0% de minimis concentration (only if manufactured by the strong acid process)

#### State Regulations

##### A: General Product Information

Other state regulations may apply. Check individual state requirements. This product contains trace levels (<0.1%) of acetaldehyde, ethylene oxide, dioxane, silica, crystalline-quartz and formaldehyde.

##### B: Component Analysis - State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	CA	FL	MA	MN	NJ	PA
Silica, amorphous	7631-86-9	Yes	Yes	Yes	Yes	Yes	Yes
Magnesium oxide	1309-48-4	Yes	Yes	Yes	Yes	Yes	Yes
Isopropyl alcohol	67-63-0	Yes	Yes	Yes	Yes	Yes	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause cancer.

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

#### Other Regulations

##### A: General Product Information

No additional information available.

##### B: Component Analysis - Inventory

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Component	CAS #	TSCA	DSL	EINECS
Silicon nitride	12033-89-5	Yes	Yes	Yes
Silica, amorphous	7631-86-9	Yes	Yes	Yes
Polyvinyl pyrrolidone - Vinyl acetate copolymer	25086-89-9	Yes	Yes	No
Magnesium oxide	1309-48-4	Yes	Yes	Yes
Isopropyl alcohol	67-63-0	Yes	Yes	Yes

**C: Component Analysis - WHMIS IDL**

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Silica, amorphous	7631-86-9	1% item 1403 (1488)
Magnesium oxide	1309-48-4	1% item 959 (1314)
Isopropyl alcohol	67-63-0	1% item 904 (1050)

**\*\*\* Section 16 - Other Information \*\*\***

**Other Information**

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use. New MSDS on 11/11/1998.

**Key/Legend**

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; TLV = Threshold Limit Value; NFPA = National Fire Protection Association; HMIS = Hazardous Material Information System; CFR = Code of Federal Regulations; HEPA = High Efficiency Particulate Air; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; SARA = Superfund Amendments and Reauthorization Act

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This is the end of MSDS # NAC-0001