

MATERIAL SAFETY DATA SHEET

BORON NITRIDE SPRAY II

1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Momentive Performance Materials
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Strongsville, Ohio 44149
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EMERGENCY TELEPHONE NO.:
24 hr. CHEMTREC: 1-800-424-9300

TRADE NAME: Boron Nitride Spray II

MSDS NUMBER: 421

CHEMICAL NAME: Boron nitride powder
in hydrocarbon solvents and carriers

SYNONYMS: None

PREPARED BY:
Momentive Performance Materials

DATE OF ISSUE / LATEST REVISION:
August 9, 2005 / July 6, 2007

2. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

DANGER! Extremely flammable liquid and vapor. Contents under pressure. Harmful if swallowed, inhaled, or absorbed through skin. Irritating to skin, eyes, and respiratory tract. May cause headache, dizziness, and nausea. May cause liver and kidney damage. Reproductive effects have been reported in animals. Boron nitride powder spray, sweetish odor.

POTENTIAL HEALTH EFFECTS:

Note: Health effects listed are due to exposure to the carrier solvents. Boron nitride powder is non-toxic.

Eye: Irritating to eyes.

Skin Contact: Irritating to skin. May cause a rash and redness.

Skin Absorption: May be absorbed through skin and cause symptoms as listed under "Inhalation".

Ingestion: Harmful if swallowed. Irritating to the mouth and stomach. May cause dizziness, headache, nausea, diarrhea, slowed reaction times, liver and kidney damage. May also cause effects as listed under "Inhalation".

Inhalation: Harmful if inhaled. Irritating to the respiratory tract. May cause headache, dizziness, nausea, coughing, loss of concentration, irregular breathing and heartbeat. Reproductive effects have been reported in animals.

Medical Conditions Aggravated by Exposure: Pre-existing skin or respiratory disorders, allergies.

Target Organs: Central nervous system, liver.

Chronic & Carcinogenicity: Alcohol may enhance toxic effects. May cross the placenta. May be excreted in breast milk. Allergic reactions have been reported from exposure to alcohols.

Repeated or prolonged inhalation of high concentrations of boron nitride may cause a benign pneumoconiosis. Boron nitride is not a known or suspected carcinogen. Dusts may possibly aggravate pre-existing lung and skin disorders. See Section 11. Toxicological Information for more information.

Routes of Exposure: Skin, respiratory tract.

3. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Component</u>	<u>CAS #</u>	<u>Percent</u>	<u>ACGIH (TLV)</u>	<u>OSHA (PEL)</u>	<u>Units</u>
Isobutane (propellant)	106-97-8	25 - 30	800	Not est.	ppm
Acetone	67-64-1	25 - 26	500 (750 STEL)	750 1780	ppm mg/M ³
Propane (propellant)	74-98-6	5 - 10	Not est.	1000	ppm
Ethyl alcohol	64-17-5	30 - 35	1000	1000 1900	ppm mg/M ³
Boron nitride	10043-11-5	1 - 5	10 (T) 3 (R)	15 (T) 5 (R)	mg/M ³ mg/M ³
Organic clay	71011-24-0	1 - 5	10 (T) 3 (R)	15 (T) 5 (R)	mg/M ³ mg/M ³

T = Total Dust

R = Respirable Dust

PEL - OSHA Permissible Exposure Limit; TLV - ACGIH Threshold Limit Value; TWA - Time Weighted Average
OSHA revoked the Final Rule Limits of January 19, 1989 in response to the 11th Circuit Court of Appeals decision (AFL-CIO v. OSHA) effective June 30, 1993. See 29 CFR 1910.1000 (58 FR 35338).

4. FIRST AID MEASURES

Inhalation: If inhaled, remove to fresh air. If not breathing give artificial respiration using a barrier device. If breathing is difficult give oxygen. Get medical attention if irritation persists.

Eyes: Do not rub eyes. Flush with large amounts of water for at least 15 minutes. Eyelids should be held away from the eyeball to ensure thorough rinsing. Get medical attention if irritation persists.

Skin: Wash skin gently with soap and water and remove contaminated clothing. Get medical attention if irritation persists. Remove any contaminated clothing and launder thoroughly before reuse.

Ingestion: Do not induce vomiting. If large amounts of the product are ingested, give 2 glasses of water. Never give anything by mouth to an unconscious person. Seek medical attention.

Notes to Physician: Alcohol may enhance toxic effects. Stimulants such as epinephrine may induce ventricular fibrillation. The metabolism of other solvents may be inhibited resulting in a potentiation of toxic effects of those chemicals. Uptake is directly proportional to the amount of body fat. Blood levels may be cumulative when exposure is extended. Health hazards listed in this MSDS apply to the components ethyl alcohol and acetone.

5. FIRE FIGHTING MEASURES

FLASH POINT: < 0°F (< 17°C) **LEL:** 1.0 **UEL:** 36.5 **AUTO IGN. TEMP.:** Not determined

Sensitivity to Mechanical Impact: No.

Sensitivity to Static Discharge: Sensitivity to static discharge is expected; material has a flash point below 200°F (93.3°C).

Extinguishing Media: All standard extinguishing agents are suitable. Product in or near fires should be cooled with a water spray or fog to prevent over pressuring and possible bursting or explosion of containers.

Special Fire Fighting Procedures: Extremely flammable. Containers may build up pressure if exposed to heat (fire). Cool closed containers exposed to fire with water spray. This product or a component thereof can flow along surfaces to reach a distant ignition source and flash back. Firefighters must wear NIOSH/MSHA approved positive pressure self-contained breathing apparatus with full face mask and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Undamaged cans should be returned to original packaging. Leaking or damaged cans must be placed in DOT approved containers for disposal. Isolate all leaking containers from heat, sparks, or flame. Keep unnecessary personnel out of the area. Avoid cleanup procedures that may result in water pollution. Personal safety and exposure recommendations described elsewhere in this data sheet apply to exposure during clean up of spilled material. See Section 13.

7. HANDLING AND STORAGE

Storage: Store in original containers away from heat, sparks, and flame. Store at temperatures below 120°F (50°C).

Handling: Avoid contact with the eyes and skin. Avoid generating and breathing dust. Use with adequate local exhaust ventilation. Wear protective clothing to minimize skin contact. Remove contaminated clothing and clean before reuse. Wash thoroughly after work using soap and water. Keep away from children.

Empty Containers: Product packaging may contain product residue. Do not reuse.

8. EXPOSURE CONTROL - PERSONAL PROTECTION

Engineering Controls: Ventilation and other forms of engineering controls are the preferred means for controlling exposures. The need for local exhaust ventilation should be evaluated by a professional industrial hygienist. Local exhaust ventilation systems should be designed by a professional engineer.

Respiratory: If exposure limits are exceeded or respiratory irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Supplied air respirators may be required for non-routine or emergency situations. Respiratory protection must be provided in accordance with OSHA regulations (see 29 CFR 1910.134).

Eye Protection: Chemical splash goggles or safety glasses with side shields.

Protective Gloves: Polymeric gloves.

General: Avoid unnecessary skin contact with this material. Polymeric coated apron or other body covering is recommended. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE & PHYSICAL STATE:

Boron nitride spray in aerosol can.

MELT POINT: Not applicable

VAPOR DENSITY (AIR=1): 1.7 – 3.3

OCTANOL/WATER PARTITION COEFFICIENT:

Not determined

VAPOR PRESSURE: Propellant = >760mm Hg @ 25°C

EVAPORATION RATE BuOAC = 1:

Propellant = >1

ODOR: Sweet

SPECIFIC GRAVITY/BULK DENSITY:

SG = 0.85 g/cc (product without propellant)

% VOLATILE BY VOLUME: 95

BOILING POINT: Not determined

% SOLUBILITY (H₂O): 10

pH: Not applicable

OTHER: Not applicable

10. STABILITY AND REACTIVITY

Stability & Polymerization: Product is stable. Hazardous polymerization will not occur.

Incompatibility (Conditions to Avoid): Strong oxidizing and reducing agents. Temperatures above 120°F (50°C).

Hazardous Decomposition Products: Decomposition products may include oxides of boron and nitrogen, carbon monoxide, carbon dioxide, silicone dioxide, and dense smoke.

Conditions to Avoid: None known.

11. TOXICOLOGICAL INFORMATION

Boron nitride is physiologically inert and is considered a "nuisance" dust. Other boron compounds may be highly toxic and considered poisonous. Free boron will not be liberated under normal operating conditions or thermal decomposition of boron nitride. Exposure to boron nitride will not result in boron poisoning.

12. ECOLOGICAL INFORMATION

No ecotoxicity data is available. Product is inert. It is not expected to present an environmental hazard.

13. DISPOSAL CONSIDERATIONS

This material, as supplied, when discarded or disposed of, is a characteristic hazardous waste according to Federal regulations (40 CFR 261). This material exhibits the characteristic of ignitability and is assigned the EPA Hazardous Waste Number of D001. The discarding or disposal of this material must be done at a properly permitted facility in accordance with 40 CFR 262, 263, 264, and 268. Additionally, the discarding or disposal of this material may be further regulated by state, regional, or local regulations. Chemical additions, processing, or otherwise altering this material may make the waste management information presented in this MSDS incomplete, inaccurate, or otherwise inappropriate.

Empty containers will have product residues. Do not reuse.

14. TRANSPORTATION INFORMATION

U.S. Department of Transportation (DOT)

Proper Shipping Name: Aerosols, flammable

Hazard Class: 2.1

UN/NA Code: 1950

15. REGULATORY INFORMATION

U.S. Regulations

Comprehensive Environmental Response and Liability Act of 1980 (CERCLA) Reportable Quantity:

This material, as supplied, contains one or more constituents regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) as follows:

CERCLA Hazardous Substance

Acetone*

The reportable quantity (RQ) for this material is 19230 pounds, calculated on the basis of whichever regulated constituent provides the lowest RQ according the following formula:

*CERCLA Constituent RQ/% in Material

Clean Water Act (CWA):

This product, as supplied, contains the following substances which are regulated pollutants under the Clean Water Act (40 CFR 122.21 and 122.42 with reference to Appendix D, Tables II-V). Facilities must notify the appropriate permitting agency prior to introducing this product into its storm water and process waste water discharges.

Chemical Name

Acetone

Boron, total (as boron nitride)

Ethyl alcohol

Toxic Substances Control Act (TSCA): All components of this product are listed or exempt from listing on the TSCA inventory.

OSHA Hazard Communication Categories: Irritant, Liver, Kidney, CNS.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:

SARA Section 311/312 Hazard Categories: Acute Hazard, Delayed Hazard, Fire Hazard

This product contains the following toxic chemical(s) subject to reporting requirements of SARA

Section 313: Acetone, Ethyl Alcohol

California Proposition 65:

This product contains no chemicals known to the State of California to cause cancer.

16. OTHER INFORMATION

Not Est. = Not Established

NA = Not Applicable

NFPA Ratings:

Health: 2 Flammability: 3 Reactivity: 0

HMIS Ratings:

Health: 2 Flammability: 3 Reactivity: 0

Revision Indication

This MSDS has been revised in the following section(s):

August 9, 2005

New MSDS

June 4, 2007

Section 1 – Company name updated

Document footer – Company name updated

Disclaimer – Version updated

July 6, 2007

Section 1 – Latest revision date added

Document footer – Page numbers corrected, trademark note removed

Various – Spelling errors corrected

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