

MATERIAL SAFETY DATA SHEET BORON NITRIDE Application Product

Thermal Management & Lubrication Solutions

MSDS Number: BAP-0010

1. Chemical Product & Company Identification

Chemical Name: Boron Nitride Spray

Product Name: BN6 Thermal Coating Spyay Can BN6-TCC-S1

Manufacturer Name: Nextson International Trading Co., LTD.

Nextson International Trading Co., LTD.

Adress: 9800 Odlin Road

Richmond, BC, Canada V6X0C2

Phone: 604-283-8587 Fax: 604-283-8587

Recommended Use Mold Release Agent

2. Hazards Identification

NFPA

1 0

HMIS

Health Hazard	1	
Fire Hazard	3	
Reactivity	0	
Personal Protection	X	

*Chronic Health Effects

GHS Classification: GHS Category 5

Physical hazards: Explosives Not applicable

Flammable gases Not applicable Flammable aerosols Not applicable Oxidizing gases Not applicable Gases under pressure Not applicable Flammable liquids Not applicable Flammable solids Not classified Self-reactive substances Not applicable Pyrophoric liquids Not applicable Pyrophoric solids Not classified Not classified Self-heating substances Substances which, in contact with water, emit Not classified Oxidizing liquids Not applicable

Oxidizing solids
Organic peroxides
Not applicable
Correction to metals
Oxidizing solids
Not classified
Not applicable

Corrosive to metals Classification not possible

Health hazards: Acute toxicity (Oral) Category 5

Acute toxicity (Dermal) Classification not possible

Acute toxicity (Gases)

Acute toxicity (Vapors)

Not applicable

Not applicable

Acute toxicity (Dusts) Classification not possible

Acute toxicity (Mists)

Not applicable

Skin corrosion/irritation Classification not possible

Serious eye damage/eye irritation Category 5

Respiratory sensitization Classification not possible Skin sensitization Classification not possible Germ cell mutagenicity Classification not possible Carcinogenicity Classification not possible Productive toxicity Classification not possible Specific target organs systemic toxicity Classification not possible Specific target organs systemic toxicity Category 2 (Lung: inhalation) Aspiration hazard Classification not possible Classification not possible

Environmental hazards: Acute hazard to aquatic environment

> Chronic hazard to aquatic environment Classification not possible

Label elements:

Labeling or symbol:





Signal words: Warning

Emergency Overview

Flammable liquid and vapor. Contents under pressure. Harmful if swallowed, inhaled, or absorded 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.

To people

See point 11 and 15

To the environment

See point 12.

51/53 Toxic to aquatic organism, may cause long-term adverse effects in the aquatic environment.

Product can compose a film on the water, on escape of even small quantities.

Ingredients 3.

Component	CAS#	Percent
Acetone	00067-64-1	20~25
Polymer	7784-30-7	20~25
Boron nitride	10043-11-5	10~15
Dimethylketone	67-64-1	25~30
Isobutane(propellant)	106-97-8	25~30

First Aid Measures

Inhalation: Remove exposed person to fresh air. If breathing is difficult, oxygen may be

administered. If breathing has stopped, artificial respiration should be started

immediately. Seek medical attention.

Eyes: Do not rub eyes. Flush with tepid water for at least 20 minutes holding the eyelids

wide open. Seek medical attention if irritation develops.

Wash thoroughly with mild soap and water. Seek medical attention if irritation Skin:

develops. Remove any contaminated clothing and launder thoroughly before

reuse.

Not expected to be an important route of entry into the body. If large amounts of Ingestion:

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: <17°C (0°F) **Lower Flammable Limit (LFL):** 1.0 Auto Ignition: Not determined **Upper Flammable Limit (UFL):** 36.5

Sensitivity to Meshancial Impact: No.

Sensitivity to Static Discharge: Sensitivity to static discharge is expected; material has a flash point below 93℃ (200°F).

Extinguishing Media: All standard extinguishing agets as 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

dosed 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 water NOISH/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 unneccesary personnel out of the area. Avoid cleanup producedures that may result in water pollution. Personal safty 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 temperature below 50°C (120°F). Handling: Avoid contact with the eyes and skin. Avoid generating and breathing dust. Use with adequate local exhaust vertilation. Water protective clothing to minimize siin 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 reusr.

8. **Exposure Controls - Personal Protection**

Local exhaust ventilation should be provided to maintain exposures below the limits **Engineering Controls:**

cited in Section 2. Design details for local exhaust ventilation systems may be found in the latest edition of "Industrial Ventilation: A Manual of Recommended Practices" published by the ACGIH Committee on Industrial Ventilation, P.O. Box 16153, Lansing, MI 48910. 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.

If exposures exceed the limits cited in Section 2 by less than a factor of ten, use as a Respiratory:

> minimum a NIOSH approved 1/2 facepiece respirator equipped with cartridges approved for particulate matter with an exposure limit of not less than 0.05 mg/M³. exposures exceed 10 times the recommended limits, consult a professional industrial hygienist or your respiratory protective equipment supplier for selection of the proper equipment. The evaluation of the need for respiratory protection should be determined

by a professional industrial hygienist.

Eye Protection: Chemical splash goggles are recommended where there is a possibility of eye contact

with the product. Safety glasses with side shields are recommended for all other

operations.

Protective Gloves: Polymeric gloves are recommended to prevent possible irritation.

Polymeric coated apron or other body covering is recommended where there is a General:

possibility of regular work clothing becoming contaminated with the product. 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 **Melting Point:** Not applicable aerosol can.

Vapor Density (AIR=1): 1.7~3.3 Vapor Pressure: Propellant =>760 mm Hg @ 25

3

Specific Gravity/Bulk Density: 0.85 g/cc (product Odor: Sweet

without propellant)

% Volatile By Volume: 95 Boiling Point: Not determined

% Solubility (H₂O): 10 pH: Not applicable

Other: Not Applicable

10. Stability And Reactivity

STA BILITY: Stable under normal conditions of use.

CO ND ITION S TO A VOID: Avoid contact with: Strong oxidising agents. Avoid contact with acids.

Avoid heat, flames and other sources of ignition.

MATER IA LS TO AVOID: Potassium sulphate, sodium hydroxide, sulphuric acid, nitric acid, hydrogen peroxide,

chloroform, activated carbon, bromine.

HA ZA RD OUS DEC OMP. PROD UC TS : Thermal decomposition or burning may release oxides of carbon and

other hazardous gases or vapours.

11. Toxicological Information

TOXIC D OSE - LD 5 0: 5800 mg/kg (oral rat)

TOXICOLOGICA L IN FORM A TION: Low order of acute toxicity.

HEALTH HA ZA RD S, GEN ER AL: Vapour will irritate the membranes of nose, throat, lungs and eyes.

IN GE ST ION: Ingestion will cause gastric irritation and vomiting. Aspiration during swallowing or

vomiting may severely damage the lungs.

RO UT E O F ENTRY: Inhalation. Ingestion. Skin and/or eye contact.

TAR GE T O RGA NS: Central nervous system. Eyes. Respiratory system, lungs. Skin.

MEDICA L SYMPTO MS: Symptoms may include irritation to eyes and mucous membranes, (inflammation of

nasal mucous membranes), general respiratory distress and unproductive cough.

Skin irritation, dryness of skin due to de-fatting.

Inhalation of vapour may cause intoxication including drowsiness, disorientation and

central nervous system depression.

MEDICA L CON SIDERA TION S: Skin disorders and allergies.

12. Ecological Information

LC 50, 9 6 HRS, FISH mg /I: 8300 mg/l (96 hours)

E COLOG ICA L IN FORMA T IO N: Prevent contamination of soil, drains or surface water, use appropriate

containment method to avoid environmental contamination.

MOB IL ITY: Soluble in water. Lost within short period through evaporation and dissolution.

B IO A CC UMU LAT IO N: Not expected to bio-accumulate.

DEGR AD ABILITY: Poses a significant risk of oxygen depletion in aquatic systems. Environmental half-life expected

to be 1-<10 days. Readily biodegradable.

13. Disposal Considerations

This material. As supplied, when discarded or disposed of , is a characteristic harzardous waste according to Federal regulations (40 CFR 261). This material exhibits the characteristic of ignitability and assigned the EPA Harzardous Waste Number of D001. The discarding os dispposal 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

UN No. RO AD: 1090

ADRCLASSNo.: 3

AD R C LAS S: Class 3: Flammable liquids.

AD R ITEM N o.: 3°(b)

HA ZA RD No. (AD R): 33 Highly flammable liquid (flash-point below 23°C).

AD R M A RGINA L: 2301 AD R L A BE L N o.: 3 HA ZC HEM COD E: 2YE CEFIC TEC(R) N o.: 30

PR OPE R SH IPPING N AME I: ACETONE

RO AD TR AN SPOR T NOTES: Flash point: -18°C

UN No . S EA : UN 1090 IM DG CLA SS : 3.1 IM DG PA GE N o .: 3102 IM DG PA CK GR .: II UN No ., AIR: UN-ID 1090

IC AO C LASS: 3 AIR PA CK GR .: ||

15. Regulatory Information



LABEL FOR SUPPLY:

RISK PHRA SES: R-11 Highly flammable.

R-36 Irritating to eyes.

R-66 Repeated exposure may cause skin dryness or cracking.

R-67 Vapours may cause drowsiness and dizziness.

SAFETY PHR ASES: S-2 Keep out of reach of children.

S-9 Keep container in a well ventilated place.

S-16 Keep away from sources of ignition - No Smoking.

S-26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

UK R EGULA TORY REFEREN CES: Classification, Packaging and Labelling Regulations 1984. Chemicals (Hazard Information & Packaging) Regulations 1993.

16. Other Information

Not Est. = Not Established NA = Not Applicable HMIS Classification: Health = 1, Fire = 0, Reactivity = 0

All components of the product are included in the Toxic Substances Control Act (TSCA) inventory.

Notice To Users: BN6 requests the users of this product to study this material safety data sheet (MSDS) and become aware of product hazards and safety information. To promote safe use of this product, a user should (1) notify its employees, agents, and contractors of the information on this MSDS and any product hazard and safety information, (2) furnish this same information to each of its customers for the product and, (3) request such customers to notify their employees and customers of the product hazards and safety information.

The opinions expressed herein are those of qualified experts within BN6 & Co. We believe that the information contained herein is current as of the date of this MSDS. Since the use of this product is not within the control of BN6 it is user's obligation to determine the conditions of safe use of this product.