



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name

BN Lubricoat® Paste

Product Code

1077

Safety Data Sheet Supplier Information:

Manufacturer

ZYP Coatings, Inc.

120 Valley Court

Oak Ridge, TN 37830

www.zypcoatings.com

Telephone (General)

(865) 482-5717 8:30 AM - 5:00 PM EST.

Emergency Telephone Number

(800) 255-3924 – ChemTel

(813) 248-0585 Outside of US – Call Collect

2. HAZARDS IDENTIFICATION

GHS CLASSIFICATION:

SIGNAL WORD

Warning

SYMBOL(S)



PRIMARY ROUTES OF EXPOSURE

Inhalation and contact to the eyes.

HAZARD STATEMENTS

Eye irritation

Category 2B

H320

Causes eye irritation.

Inhalation

Category 4

H332

Harmful if inhaled.

STOT:SE

Category 3

H335

May cause respiratory irritation.

PRECAUTIONARY STATEMENT(S)

P261

Avoid breathing dust / fumes / gas / mists / vapors / spray.

P264

Wash hands thoroughly after handling.

P271

Use only outdoors or in well-ventilated area.

P304 + P340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 +

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P338

P312

Call a POISON CENTER or doctor / physician if you feel unwell.

P337 + P313

If eye irritation persists: Get medical advice / attention.

P403 + P233

Store in a well-ventilated place. Keep container tightly closed.

P405

Store locked up.

P501

Dispose of contents / container in accordance with local / regional / national / international regulations.

Health 1

Fire 0

Reactivity 0





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3. COMPOSITION / INFORMATION ON INGREDIENTS

| Chemical Name | Hazard Components | | Wt.% |
|----------------|-------------------|------------|-------|
| | Identifiers | | |
| Water | CAS No. | 7732-18-5 | 65-70 |
| Boron Nitride | CAS No. | 10043-11-5 | 23-28 |
| Aluminum Oxide | CAS No. | 1318-23-6 | 3-5 |
| Nitric acid | CAS No. | 7697-37-2 | 1-3 |

4. FIRST AID MEASURES

| | |
|-------------------|---|
| EYES | Flush eyes, including under the eyelids, with large amounts of water. If irritation persists, seek medical attention. |
| SKIN | Wash thoroughly with mild soap and water. |
| INGESTION | Give copious amounts of water and seek medical attention. |
| INHALATION | Remove to fresh air. Seek medical attention if symptoms persist. |

5. FIRE FIGHTING MEASURES

| | |
|---|---|
| Extinguishing Media | This water-based coating is non-combustible. Use extinguishing media appropriate to the surrounding fire. |
| Flammability Classification | Non-combustible. |
| Special Hazards Arising from the Chemical | Initial exposure to high temperatures evolves, in small amounts, fumes that may be irritating or corrosive to the upper respiratory system. |
| Hazardous Combustion Products | Nitrogen oxides. |
| Specific Protective Equipment and Precautions (Firefighters) | As in any fire, wear self-contained breathing apparatus (SCBA), NIOSH (approved or equivalent) and full protective gear. |

6. ACCIDENTAL RELEASE MEASURES

| | |
|--|---|
| Personal Precautions, Protective Equipment and Emergency Procedures | Clean up personnel should wear rubber gloves and goggles to prevent irritation from contact. Contain the spill using a mineral absorbent. It can be readily neutralized using any basic neutralization agent, such as lime or sodium bicarbonate. |
| Environmental Precautions Methods and Materials For Containment and Cleaning Up | Do not allow product to reach sewage system or any water course. No special measures are required; refer to environmental and personal precautions, and other sections of this document. |

7. HANDLING AND STORAGE

| | |
|----------------------------------|---|
| SAFE HANDLING PRECAUTIONS | Boron Nitride is slippery, and is considered a slip hazard if spilt on a walkway. Practice good housekeeping. |
| SAFE STORAGE PRECAUTIONS | Store in original container. Do not store in metal containers since it may be corrosive to the container. |



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8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits/Guidelines

| | |
|--------------------------------------|---|
| Engineering Measures/Controls | Provide adequate ventilation to control dust or vapors below the regulated exposure limits (PEL and TLV). |
| Personal Protective Equipment | Protective clothing should be selected specifically for the workplace, depending on the concentration and quality of the hazardous substances handled. The chemical resistance of the protective gear should be inquired from the respective supplier. |
| Respiratory | An appropriate NIOSH-approved respirator must be worn if exposure is likely to exceed the lowest TLV/PEL rated regulations. |
| Eye/Face | Safety goggles or side shielded safety glasses are recommended for any type of industrial handling. |
| Hands | Use impervious gloves. |
| Skin/Body | Normal work clothing. Note that long sleeved shirts, long pants and gloves are recommended. |
| Exposure Guidelines | |
| Boron Nitride | Guideline ACGIH (TLV): None established (treat as nuisance dust) 10 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction) Guideline OSHA (PEL): None established (treat as nuisance dust) 15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction) |
| Aluminum Oxide | Guideline ACGIH (TLV): 10 mg/m ³ (total dust) Guideline OSHA (PEL): 5 mg/m ³ (respirable fraction) 15 mg/m ³ (total dust) 1 mg/m ³ (respirable fraction) |
| Nitric Acid | Guideline ACGIH (TLV): 2 ppm (or 5.2 mg/m ³) Guideline OSHA (PEL): 2 ppm (or 5 mg/m ³) |

9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|-------------------------|-------------------|----------------------------|--------------------------|
| Physical State | Liquid | Odor | Nearly odorless |
| Color | White | Vapor Pressure | 10-20 mmHg |
| Specific Gravity | 1.2-2 | Vapor Density | Greater than air (Air=1) |
| pH | 2-4 | Solubility in Water | n. ap. |
| Viscosity | 35,000-46,000 cps | Freezing Point | 0° C (32° F) |
| Melting Point | n. ap. | Boiling Point | 100° C (212° F) |
| VOC Content | 0 g/L | Percent Volatile | 65% - 70% |
| Molecular Weight | n. ap. | Flash Point | n. ap. |
| Evaporation Rate | Similar to water | Flash Point Method | n. ap. |

10. STABILITY AND REACTIVITY

Chemical Stability This refractory coating is stable under all normal conditions of storage.



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Incompatible Materials

Conditions To Avoid

Hazardous Decomposition Products

Hazardous polymerization will not occur.

As a good practice, do not mix with any other materials.

None known.

Upon initial heating to 600° C, small amounts of nitric oxide fumes will be released.

11. TOXICOLOGICAL INFORMATION

Route(s) Of Entry/Exposure

Note all values are calculated in accordance with OSHA 29CFR§ 1910 for mixtures.

Ingestion

LD₅₀ Oral - rat: 3328 mg/kg

Skin Absorption

LD₅₀ Dermal – rat: 2044 mg/kg

Inhalation

LC₅₀ Inhalation – rat (per 4 hours):11.24 mg/L

Eye Contact

Corrosive burns with prolonged contact.

Skin Contact

Possible mild skin inflammation.

Effects of Acute Exposure

See sections above for eye contact, skin contact, ingestion, and inhalation.

Effects of Chronic Exposure

CAUTION! Exposure to dust may be irritating to eyes, nose and throat.

Exposure Limits

NTP

No ingredient of this product is present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed carcinogen by NTP.

IARC

No ingredient of this product is present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed carcinogen by IARC.

ACGIH

No ingredient of this product is present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed carcinogen by ACGIH.

OSHA

No ingredient of this product is present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed carcinogen by OSHA.

Reproductive Effects

No adverse effect.

Further Information

Quantitative data on this product is not available. No toxic effects are to be expected when this product is handled appropriately.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Data is lacking and inconclusive for this product.

Persistence/Degradability

Data is lacking and inconclusive for this product.

Bio Accumulative Potential

Data is lacking and inconclusive for this product.

Mobility in Soil

Data is lacking and inconclusive for this product.

Other Adverse Effects

Data is lacking and inconclusive for this product.

13. DISPOSAL CONSIDERATIONS

Description of Waste

No data available.

Methods of Disposal

Consult local/regional/national/international regulations for compliance.



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Non-contaminated paint may be returned to the manufacturer for proper disposal. The dried paint generally does not exhibit any characteristics of a hazardous waste.

14. TRANSPORT INFORMATION

| | |
|------------------------------|---|
| UN Number | |
| DOT, IMDG, IATA | n. ap. |
| Proper Shipping Name | |
| DOT, IMDG, IATA | n. ap. |
| Hazard Class(es) | DOT – Not Regulated |
| DOT, IMDG, IATA | ICAO/IATA – Not Dangerous or not hazardous goods not restricted for transport by air. IMDG – Not Regulated |
| Packaging Group | DOT – Not Regulated |
| DOT, IMDG, IATA | ICAO/IATA – Not Dangerous or not hazardous goods not restricted for transport by air. IMDG – Not Regulated |
| Environmental Hazards | |
| DOT, IMDG, IATA | n. ap. |
| Special Precautions | |
| DOT, IMDG, IATA | n. ap. |

15. OTHER REGULATORY INFORMATION

This product contains 1-2% nitric acid CAS# 7697-37-2
RQ = 1000 lbs.
TPQ = 1000 lbs.

| | Component | CAS No |
|-------------------------------------|-------------|-----------|
| SARA 302 | Nitric Acid | 7697-37-2 |
| SARA 313 | Nitric Acid | 7697-37-2 |
| SARA 311/312 | Nitric Acid | 7697-37-2 |
| CERCLA | Nitric Acid | 7697-37-2 |
| CERCLA – Hazardous Substance | Nitric Acid | 7697-37-2 |
| Clean Water Act Section 311 | Nitric Acid | 7697-37-2 |
| OSHA | Nitric Acid | 7697-37-2 |
| WHIMIS | Nitric Acid | 7697-37-2 |
| Massachusetts Right to Know | Nitric Acid | 7697-37-2 |
| Pennsylvania Right to Know | Nitric Acid | 7697-37-2 |
| New Jersey Right to Know | Nitric Acid | 7697-37-2 |

California Proposition 65 Warnings This product does not contain any material or ingredient that the State of California has found to cause cancer which would require a warning under the statute.

TSCA Inventory All substances contained in this product are listed in the Toxic Substances Control Act Chemical Substance Inventory.



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HMIS (USA)

| | |
|--------------|---|
| HEALTH | 1 |
| FLAMMABILITY | 0 |
| REACTIVITY | 0 |

NFPA (USA)

PERSONAL PROTECTION E



Health
Flammability
Reactivity
Specific Hazard

Protective Equipment



16. OTHER INFORMATION

| | |
|-----------------------------------|-----------------|
| SDS Number: | 1077 |
| SDS Revision Number: | 2.1.0 |
| SDS Preparation or Revision Date: | January 6, 2020 |
| SDS Prepared By: | T. Greene |
| Date Printed | January 6, 2020 |
| Telephone Number | 865-482-5717 |

Abbreviations

| | |
|----------------|---|
| Not Available | n. av. |
| Not Applicable | n. ap. |
| DOT | US Department of Transportation |
| IATA | International Air Transportation Association |
| IMDG | International Maritime Code for Dangerous Goods |
| ICAO | International Civilian Aviation Organization |
| GHS | Globally Harmonized System of Classification and Labelling of Chemicals |
| CAS | Chemical Abstract Service |
| HMIS | Hazardous Materials Identification System (US) |
| NFPA | National Fire Protection Association (US) |
| LC50 | Lethal concentration, 50 percent |
| LD50 | Lethal dose, 50 percent |
| STOT | Specific Target Organ Toxicity |
| RQ | Reportable Quantity |
| TPQ | Threshold Planning Quantity |
| CERCLA | Comprehensive Environmental Response, Compensation and Liability Act |
| SARA | Superfund Amendments and Reauthorization Act |
| TSCA | Toxic Substances Control Act |
| RTK | Right to Know |
| EPCRA | Emergency Planning and Community Right to Know Act |
| TLV | Threshold Limit Value |
| PEL | Permissible Exposure Limits |



SAFETY DATA SHEET

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