



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





SAFETY DATA SHEET

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.



SAFETY DATA SHEET

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	2-3	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.



SAFETY DATA SHEET

Incompatible Materials

Hazardous polymerization will not occur.

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

Conditions To Avoid

None known.

Hazardous Decomposition Products

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.



SAFETY DATA SHEET

Methods of Disposal

Consult local/regional/national/international regulations for compliance. 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, IMDG, IATA

DOT – Not Regulated

ICAO/IATA – Not Dangerous or not hazardous goods not restricted for transport by air.

IMDG – Not Regulated

Packaging Group

DOT, IMDG, IATA

DOT – Not Regulated

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.



SAFETY DATA SHEET

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:	May 29, 2015
SDS Prepared By:	T. Greene
Date Printed	May 29, 2015
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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