

# SAFETY DATA SHEET



## 1. PRODUCT AND COMPANY IDENTIFICATION

### Product Identifier

Product Name

Boron Nitride Aerosol Lubricoat®

Product Code

1047

### 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 –VelocityEHS

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

## 2. HAZARDS IDENTIFICATION

### GHS CLASSIFICATION:

### SIGNAL WORD

Danger

### SYMBOL(S)



### PRIMARY ROUTES OF EXPOSURE

Inhalation, contact to eyes, and skin.

### HAZARD STATEMENTS

Flammable	Category 1	H222	Extremely flammable aerosol.
Gas under pressure		H280	Contains gas under pressure; may explode if heated.
Eye Irritant	Category 2A	H319	Causes serious eye irritation.
STOT:SE	Category 3	H336	May cause drowsiness or dizziness.

### PRECAUTIONARY STATEMENT(S)

P210	Keep away from heat / sparks / open flames / hot surfaces. - No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Pressurized container: Do not pierce or burn, even after use.
P261	Avoid breathing dust / fumes / gas / mist / vapors / spray.
P264	Wash hands thoroughly after handling.
P271	Use outdoors or in a well-ventilated area.
P280	Wear protective gloves and eye protection.
P304 + P340	IF INHALED: Remove the victim to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor / physician if you feel unwell.
P337 + P313	If eye irritation persists: Get medical advice / attention.





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P403	Store in a well-ventilated place.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50° C / 122 °F
P501	Dispose of contents / container in accordance with local / regional / national / international regulations.

Health	2
Fire	4
Reactivity	0



### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	Hazard Components		Wt.%
	Identifiers		
Boron Nitride	CAS No.	10043-11-5	5-10
Ethanol	CAS No.	64-17-5	10-30
2-Propanone (Acetone)	CAS No.	67-64-1	30-60
Propane	CAS No.	74-98-6	10-30
Butane	CAS No.	106-97-8	10-30
Isobutane	CAS No.	75-28-5	5-10
Proprietary-Trade Secret	CAS No.		1-5

### 4. FIRST AID MEASURES

<b>EYES</b>	Flush eyes, including under the eyelids, with large amounts of water. If irritation persists, seek medical attention.
<b>SKIN</b>	Wash thoroughly with mild soap and water.
<b>INGESTION</b>	In the event of swallowing, drink 1 or 2 glasses of water to dilute.
<b>INHALATION</b>	Remove from exposure. Restore breathing, keep warm, and quiet.
<b>General</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting. Call a poison center or a doctor if you feel unwell.

### 5. FIRE FIGHTING MEASURES

<b>Extinguishing Media</b>	Water spray or fog, dry chemical, or carbon dioxide.
<b>Flammability Classification</b>	Flammable aerosol.
<b>Special Hazards Arising from the Chemical</b>	None known.
<b>Hazardous Combustion Products</b>	Oxides of carbon.
<b>Specific Protective Equipment and Precautions (Firefighters)</b>	As in any fire, wear self-contained breathing apparatus (SCBA), NIOSH (approved or equivalent) and full protective gear. Extremely flammable liquid packaged in an aerosol spray canister using a flammable gas propellant. Vapors are heavier than air and may travel to sources of ignition and flash back. Avoid high temperatures and static charges.





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### Personal Precautions, Protective Equipment and Emergency Procedures

Clean up personnel should wear rubber gloves and goggles to prevent irritation from contact. In case of spill or rupture, avoid breathing vapors and ventilate area well. Remove all sources of ignition and use non-sparking equipment. Soak up with inert absorbents. Allow absorbents to dry and dispose in accordance with local/regional/national/international regulations.

### 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** Personnel should wear the appropriate equipment when handling the paint in order to minimize the chance of contact/exposure. Boron Nitride is slippery, and is considered a slip hazard if spilt on a walkway. Practice good housekeeping.

**SAFE STORAGE PRECAUTIONS** Do not store in heat over 122° F (50° C). Do not spray into open flame or on hot surfaces. High temperatures may cause bursting. Do not puncture or incinerate. Keep out of reach of children. For warehouse storage, pallets, and cases should be placed to avoid damage or rupture from material handling equipment. With use, spray aerosol carefully and cap after each use.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

### Exposure Limits/Guidelines

<b>Engineering Measures/Controls</b>	Provide adequate ventilation to control dust or vapors below the regulated exposure limits (PEL and TLV).
<b>Personal Protective Equipment</b>	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.
<b>Respiratory</b>	An appropriate NIOSH-approved respirator must be worn if exposure is likely to exceed the lowest TLV/PEL rated regulations.
<b>Eye/Face</b>	Safety goggles or side shielded safety glasses are recommended for any type of industrial handling.
<b>Hands</b>	Use impervious gloves.
<b>Skin/Body</b>	Normal work clothing. Note that long sleeved shirts, long pants and gloves are recommended.

### Exposure Guidelines

<b>Boron Nitride</b>	Guideline ACGIH (TLV):	None established (treat as nuisance dust) 10 mg/m <sup>3</sup> (total dust) 5 mg/m <sup>3</sup> (respirable fraction)
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	Guideline OSHA (PEL):	None established (treat as nuisance dust)
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		15 mg/m <sup>3</sup> (total dust)
		5 mg/m <sup>3</sup> (respirable fraction)
<b>Ethanol</b>	Guideline ACGIH (TLV):	1000 ppm (or 1,880 mg/m <sup>3</sup> )
	Guideline OSHA (PEL):	1000 ppm (or 1,900 mg/m <sup>3</sup> )
<b>Acetone</b>	Guideline ACGIH (TLV):	250 ppm (600 mg/m <sup>3</sup> )
	Guideline OSHA (PEL):	1000 ppm (2,400 mg/m <sup>3</sup> )
<b>Propane</b>	Guideline ACGIH (TLV):	2500 ppm (4,508 mg/m <sup>3</sup> )
	Guideline OSHA (PEL):	1000 ppm (1800 mg/m <sup>3</sup> )
<b>N-Butane</b>	Guideline ACGIH (TLV):	1000 ppm
	Guideline OSHA (PEL):	800 ppm
<b>Isobutane</b>	Guideline ACGIH (TLV):	1000 ppm
	Guideline OSHA (PEL):	None established
<b>Proprietary-Trade Secret</b>	Guideline ACGIH (TLV):	10 mg/m <sup>3</sup> (total dust)
		1 mg/m <sup>3</sup> (respirable fraction)
	Guideline OSHA (PEL):	15 mg/m <sup>3</sup> (total dust)
		5 mg/m <sup>3</sup> (respirable fraction)

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Liquid Aerosol	<b>Odor</b>	Alcohol/Acetone
<b>Color</b>	White	<b>Vapor Pressure</b>	Not determined
<b>Specific Gravity</b>	Not determined	<b>Vapor Density</b>	Heavier than air
<b>pH</b>	n. ap.	<b>Solubility in Water</b>	NIL
<b>Viscosity</b>	Not determined	<b>Freezing Point</b>	Not determined
<b>Melting Point</b>	n. ap.	<b>Boiling Point</b>	Not determined
<b>VOC Content</b>	599 g/L (Regulatory)	<b>Percent Volatile</b>	90%
	313 g/L (Actual)		
<b>Molecular Weight</b>	n. ap.	<b>Flash Point</b>	<2° C (<36° F) for liquid portion
<b>Evaporation Rate</b>	Rapid	<b>Flash Point Method</b>	Closed cup

### 10. STABILITY AND REACTIVITY

<b>Chemical Stability</b>	Stable under normal conditions.
<b>Incompatible Materials</b>	Caustics and oxidizing materials and liquids. Strong acids and bases.
<b>Conditions To Avoid</b>	Heat, sparks, flame, and/or red hot metal.
<b>Hazardous Decomposition Products</b>	Will not occur.

### 11. TOXICOLOGICAL INFORMATION

<b>Route(s) Of Entry/Exposure</b>	Note all values are calculated in accordance with OSHA 29 C.F.R. § 1910
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	for mixtures.
<b>Ingestion</b>	LD <sub>50</sub> Oral - rat: 3718 mg/kg
<b>Skin Absorption</b>	LD <sub>50</sub> Dermal – rat: 2853 mg/kg
<b>Inhalation</b>	LC <sub>50</sub> Inhalation – rat (per 4 hours): 17.35 mg/kg
<b>Eye Contact</b>	Redness, burning, tearing, or swelling. Irritation will occur.
<b>Skin Contact</b>	Prolong/repeated contact with skin may cause redness, irritation, burning, drying, or cracking.

**Effects of Acute Exposure** See sections above for eye contact, skin contact, ingestion, and inhalation.

**Effects of Chronic Exposure** CAUTION! Exposure to dust from dried paint may be irritating to eyes, nose and throat.

### Exposure Limits

<b>NTP</b>	Ethanol is listed as A3 (Confirmed animal carcinogen with unknown relevance to humans).
<b>IARC</b>	Ethanol is listed as Group 1 (Carcinogenic to humans) for ethanol in alcoholic beverages. But, some doubt has been expressed regarding whether developmental toxicity can be caused by occupational exposure to ethyl alcohol. Inhalation and dermal exposure in the workplace result in low blood alcohol concentrations.
<b>ACGIH</b>	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.
<b>OSHA</b>	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

<b>Ecotoxicity</b>	Data is lacking and inconclusive for this product.
<b>Persistence/Degradability</b>	Data is lacking and inconclusive for this product.
<b>Bio Accumulative Potential</b>	Data is lacking and inconclusive for this product.
<b>Mobility in Soil</b>	Data is lacking and inconclusive for this product.
<b>Other Adverse Effects</b>	Data is lacking and inconclusive for this product.

## 13. DISPOSAL CONSIDERATIONS

**Description of Waste** Do not incinerate aerosol cans. Allow solvents on cleaning rags, papers, etc. to evaporate, and then dispose of in safety containers. Use and store to prevent accidental rupture of aerosol cans.

**Methods of Disposal** Empty cans completely and then puncture it with the approved devices made for this purpose. The aerosol canisters may then be disposed in the





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usual trash removal. Consult state, local or national regulations to ensure proper disposal. Disposal must be made according to official regulations.

### 14. TRANSPORT INFORMATION

UN Number	UN1950
DOT, IMDG, IATA	Ltd. Qty.
Proper Shipping Name	Aerosols, Flammable, Limited Quantity
DOT, IMDG, IATA	n. ap.
Hazard Class(es)	DOT –Regulated Class 2.1
DOT, IMDG, IATA	ICAO/IATA –Dangerous, hazardous goods restricted for transport by air.
	IMDG – Regulated
Packaging Group	DOT –Regulated Ltd. Qty.
DOT, IMDG, IATA	ICAO/IATA –Dangerous, hazardous goods restricted for transport by air.
	IMDG Regulated
Environmental Hazards	
DOT, IMDG, IATA	n. ap.
Special Precautions	
DOT, IMDG, IATA	n. ap.

### 15. OTHER REGULATORY INFORMATION

	Component	CAS No
SARA 302	Ethanol	64-17-5
	Acetone	67-64-1
SARA 313	Ethanol	64-17-5
	Acetone	67-64-1
SARA 311/312	Ethanol	64-17-5
	Acetone	67-64-1
CERCLA	Ethanol	64-17-5
	Acetone	67-64-1
CERCLA – Hazardous Substance	Ethanol	64-17-5
	Acetone	67-64-1
Clean Water Act Section 311	Ethanol	64-17-5
	Acetone	67-64-1
OSHA	Ethanol	64-17-5
	Acetone	67-64-1
WHIMIS	Ethanol	64-17-5
	Acetone	67-64-1
Massachusetts Right to Know	Ethanol	64-17-5
	Acetone	67-64-1
Pennsylvania Right to Know	Ethanol	64-17-5
	Acetone	67-64-1
New Jersey Right to Know	Ethanol	64-17-5
	Acetone	67-64-1
	N-Butane	106-97-8





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Isobutane 75-28-5  
Propane 74-98-6

## 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.

## HMIS (USA)

HEALTH	2
FLAMMABILITY	4
REACTIVITY	0
PERSONAL PROTECTION	E

## NFPA (USA)



Health  
Flammability  
Reactivity  
Specific Hazard

## Protective Equipment



## 16. OTHER INFORMATION

SDS Number: 1047  
SDS Revision Number: 2.1.0  
SDS Preparation or Revision Date: January 1, 2023  
SDS Prepared By: C. Holcombe  
Date Printed: January 1, 2023  
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

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<b>LD50</b>	Lethal dose, 50 percent
<b>STOT</b>	Specific Target Organ Toxicity
<b>RQ</b>	Reportable Quantity
<b>TPQ</b>	Threshold Planning Quantity
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation and Liability Act
<b>SARA</b>	Superfund Amendments and Reauthorization Act
<b>TSCA</b>	Toxic Substances Control Act
<b>RTK</b>	Right to Know
<b>EPCRA</b>	Emergency Planning and Community Right to Know Act
<b>TLV</b>	Threshold Limit Values
<b>PEL</b>	Permissible Exposure Limits

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