



SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

Product Identifier

Product Name BN 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 – ChemTel
(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 the 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 Irritation	Category 2B	H320	Causes eye irritation.
Inhalation	Category 4	H332	Harmful if inhaled.
STOT:SE	Category 3	H335	May cause respiratory 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 / fume / gas / mist / 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 + 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.



SAFETY DATA SHEET

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.
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	15-20%
Ethanol	CAS No.	64-17-5	15-20%
2-Propanone	CAS No.	67-64-1	30-35%
Propane	CAS No.	74-98-6	10-15%
Butane	CAS No.	106-97-8	10-15%
Proprietary-Trade Secret	CAS No.		1-5%

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, rinse thoroughly.
INGESTION	In the event of swallowing, drink 1 to 2 glasses of water to dilute. Do not induce vomiting. Consult physician immediately.
INHALATION	Remove to fresh air. Seek medical attention if symptoms persist. Never give anything by mouth to an unconscious person.

5. FIRE FIGHTING MEASURES

Extinguishing Media	Water spray or fog, dry chemical, carbon dioxide.
Flammability Classification	Flammable aerosol.
Special Hazards Arising from the Chemical	Insufficient data for determination.
Hazardous Combustion Products	Oxides of carbon.



SAFETY DATA SHEET

Specific Protective Equipment and Precautions (Firefighters)

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. Products of combustion will be created which are toxic when liquid or vapor contacts flame or red hot metal.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment And Emergency Procedures

Particular danger of slipping on leaked/spilled product. Wear protective equipment. Spills from aerosol cans are unlikely and generally of small volume. Spill prevention is generally not a problem. In case of spill or rupture, avoid breathing vapors and ventilate area well. Remove all sources of ignition and use non-sparking equipment. Soak material up with inert absorbents. Allow absorbents to dry then incinerate. Do not incinerate aerosol cans.

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 on a walkway. Practice good housekeeping.

SAFE STORAGE PRECAUTIONS

Contents under pressure. Do not store in sunlight or heat over 49°C (120°F). Do not spray into open flame or hot surface. 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. Cap after every use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits/Guidelines

Engineering Measures/Controls Personal Protective Equipment

Provide adequate ventilation to control dust below the TLV. Protective clothing should be selected specifically for the workplace, depending on concentration and quality of the hazardous substances handled. The chemical resistance of the protective equipment should be inquired from the respective supplier.

Respiratory

An appropriate NIOSH-approved respirator for organic vapor must be worn if exposure is likely to exceed the lowest TLV/PEL rated hazardous ingredient as shown below. If respirators are used, a program should be established to assure compliance with OSHA standard 29 CFR§ 1910.134.

Eye/Face

Safety goggles or side shielded safety glasses are recommended for any



SAFETY DATA SHEET

Hands Skin/Body

type of industrial handling.
Use impervious gloves.
Normal work clothing (long-sleeved shirt, long pants, and gloves) is recommended. With aerosols, skin exposure is not normally experienced.

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)
Ethanol:	Guideline ACGIH (TLV):	1000 ppm
	Guideline OSHA (PEL):	1000 ppm
2-Propanone:	Guideline ACGIH (TLV):	500 ppm
	Guideline OSHA (PEL):	1000 ppm
Propane:	Guideline ACGIH (TLV):	1000 ppm or 1800 mg/m ³
	Guideline OSHA (PEL):	2500 ppm or 4508 mg/m ³
Butane:	Guideline ACGIH (TLV):	1000 ppm
	Guideline OSHA (PEL):	----
Proprietary-Trade Secret	Guideline ACGIH (TLV):	10 mg/m ³ (total dust) 1 mg/m ³ (respirable fraction)
	Guideline OSHA (PEL):	15 mg/m ³ (total dust) 5 mg/m ³ (respirable fraction)

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid aerosol	Odor	Alcohol/Acetone
Color	White	Vapor Pressure	Not determined
Specific Gravity	Not determined	Vapor Density	Heavier than air
pH	n. ap.	Solubility in Water	Not soluble
Viscosity	Not determined	Freezing Point	Not determined
Melting Point	Not determined	Boiling Point	Not determined
VOC Content	525 – 550 g/L (Calculated)	Percent Volatile	80-90%
Molecular Weight	n. ap.	Flash Point	<2° C (<36°C) for liquid portion
Evaporation Rate	Rapid	Flash Point Method	Closed Cup



SAFETY DATA SHEET

10. STABILITY AND REACTIVITY

Chemical Stability	Stable under normal conditions.
Incompatible Materials	Reacts with oxidizing materials and liquids, strong acids, and strong bases.
Conditions To Avoid	Open flames/sparks/intense heat.
Hazardous Decomposition Products	n. ap.

11. TOXICOLOGICAL INFORMATION

Route(s) Of Entry/Exposure	Note all values are calculated in accordance with OSHA 29 C.F.R. § 1910 for mixtures.
Ingestion	LD ₅₀ Oral - rat: 3961 mg/kg
Skin Absorption	LD ₅₀ Dermal – rat: 3347 mg/kg
Inhalation	LC ₅₀ Inhalation – rat (per 4 hours): 15.02 mg/L
Eye Contact	Redness, burning, tearing, or swelling will occur.
Skin Contact	Prolonged/repeated contact with skin may cause redness, irritation, burning, drying and/or cracking of the skin.
Effects of Acute Exposure	See sections above for effects on 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	Ethanol is listed as A3 (Confirmed animal carcinogen with unknown relevance to humans).
IARC	Ethanol is listed as Group 1 (Carcinogenic to humans) for ethanol in alcoholic beverages. 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. (https://www.osha.gov/dts/chemicalsampling/data/CH_239700.html)
ACGIH	No ingredient(s) of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by ACGIH.
OSHA	No ingredient(s) of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by OSHA.
Reproductive Effects	No data available.
Further Information	Quantitative data on the toxicity of this product is not available. No toxic effects are to be expected when the 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.



SAFETY DATA SHEET

Mobility in Soil
Other Adverse Effects

Data is lacking and inconclusive for this product.

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 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	IATA/ICAO: ID8000
DOT, IMDG, IATA	IMDG: UN1950 – Ltd. Qty Y Sticker DOT: Ltd. Qty Y Sticker
Proper Shipping Name	IATA – Consumer Commodity
DOT, IMDG, IATA	IMDG & DOT - Aerosols
Hazard Class(es)	DOT – Regulated as Haz
DOT, IMDG, IATA	ICAO/IATA – Dangerous or hazardous goods restricted for transport by air. (9) IMDG – 2.1
Packaging Group	DOT – Regulated as Haz
DOT, IMDG, IATA	ICAO/IATA – Dangerous or hazardous goods restricted for transport by air. IMDG n. a.
Environmental Hazards	
DOT, IMDG, IATA	n. ap.
Special Precautions	IATA – A112
DOT, IMDG, IATA	

15. OTHER REGULATORY INFORMATION

	Component	CAS No
SARA 302	Ethanol	64-17-5
	2-Propanone	67-64-1
	Propane	74-98-6
	Butane	106-97-8
SARA 313	Ethanol	64-17-5
	2-Propanone	67-64-1
	Propane	74-98-6
	Butane	106-97-8
SARA 311/312	Ethanol	64-17-5
	2-Propanone	67-64-1



SAFETY DATA SHEET

	Propane	74-98-6
	Butane	106-97-8
CERCLA	Ethanol	64-17-5
	2-Propanone	67-64-1
	Propane	74-98-6
	Butane	106-97-8
CERCLA – Hazardous Substance	Ethanol	64-17-5
	2-Propanone	67-64-1
	Propane	74-98-6
	Butane	106-97-8
Clean Water Act Section 311	Ethanol	64-17-5
	2-Propanone	67-64-1
	Propane	74-98-6
	Butane	106-97-8
OSHA	Ethanol	64-17-5
	2-Propanone	67-64-1
	Propane	74-98-6
	Butane	106-97-8
WHIMIS	Ethanol	64-17-5
	2-Propanone	67-64-1
	Propane	74-98-6
	Butane	106-97-8
Massachusetts Right to Know	Ethanol	64-17-5
	2-Propanone	67-64-1
	Propane	74-98-6
	Butane	106-97-8
Pennsylvania Right to Know	Ethanol	64-17-5
	2-Propanone	67-64-1
	Propane	74-98-6
	Butane	106-97-8
New Jersey Right to Know	Ethanol	64-17-5
	2-Propanone	67-64-1
	Propane	74-98-6
	Butane	106-97-8
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



SAFETY DATA SHEET

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: July 31, 2015
 SDS Prepared By: T. Greene
 Date Printed: July 31, 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 Values
PEL	Permissible Exposure Limits

Although reasonable care has been taken in the preparation of the information contained herein, the manufacturer extends no warranties, makes no representation and assumes no responsibility as to the accuracy or suitability of such information for the application to purchaser's intended purposes or for consequences of its use.



SAFETY DATA SHEET

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