



SAFETY DATA SHEET

Issuing Date 21-Oct-2014

Revision Date 21-Oct-2014

Revision Number 0

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

GHS product identifier

Product Name API-MODIFIED

Other means of identification

Product Code(s) 221

UN-Number UN3082

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended Use Lubricants, Greases and Release Products, Sealant

Uses advised against No information available

Supplier's details

Manufacturer Address

Jet-Lube, Inc.
4849 Homestead Rd.
Suite 232
Houston, Texas 77028
TEL: 713-670-5700 (7:00 a.m. - 5:00 p.m.)

Emergency telephone number

Emergency Telephone Number CHEMTREC: +1-703-527-3887 (INTERNATIONAL)
1-800-424-9300 (NORTH AMERICA)

2. HAZARDS IDENTIFICATION

Classification

This chemical is considered hazardous according to the OSHA Hazard Communication Standard 2012 (29 CFR 1910.1200)

Acute Oral Toxicity	Category 4
Acute Inhalation Toxicity - Dusts and Mists	Category 4
Carcinogenicity	Category 1B
Reproductive Toxicity	Category 1A
Specific Target Organ Toxicity (Repeated Exposure)	Category 2

GHS Label elements, including precautionary statements

Emergency Overview

Signal Word

Danger

Hazard Statements

- Harmful if swallowed
- Harmful if inhaled
- May cause cancer
- May damage fertility or the unborn child
- May cause damage to organs through prolonged or repeated exposure

**Appearance** Copper, Bronze**Physical State** Semi-fluid (gel).**Odor** Petroleum like**Precautionary Statements****Prevention**

- Use only outdoors or in a well-ventilated area.
- Wash face, hands and any exposed skin thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use personal protective equipment as required.
- Do not breathe dust/fume/gas/mist/vapors/spray.

General Advice

- If exposed or concerned: Get medical attention/advice

Inhalation

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

Ingestion

- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
- Rinse mouth.

Storage

- Store locked up.

Disposal

- Dispose of contents/container to an approved waste disposal plant.

Hazard Not Otherwise Classified (HNOC)

Not applicable

Other information

Very toxic to aquatic life with long lasting effects

18.5% of the mixture consists of ingredient(s) of unknown toxicity.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Weight %	Trade secret
Lubricating greases A complex combination of hydrocarbons having carbon numbers predominantly in the range of C12 through C50. may contain organic salts of alkali metals, alkaline earth metals, etc.	74869-21-9	32.5-38.5	*
Lead (powder particle diameter <1mm)	7439-92-1	29.9-31.1	*

Graphite	7782-42-5	17-19	*
Zinc (powder)	7440-66-6	11.6-12.8	*
Copper	7440-50-8	3.0-3.60	*

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of necessary first-aid measures

General Advice	Show this safety data sheet to the doctor in attendance.
Eye Contact	Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. Call a physician immediately.
Skin Contact	Wash off immediately with soap and plenty of water. Remove and wash contaminated clothing before re-use. If skin irritation persists, call a physician.
Inhalation	Move to fresh air. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. If not breathing, give artificial respiration. Consult a physician.
Ingestion	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Drink plenty of water. Clean mouth with water. Call a physician or Poison Control Center immediately.
Protection of First-aiders	Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Most important symptoms/effects, acute and delayed

Most Important Symptoms/Effects No information available.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Dousing metallic fires with water may generate hydrogen gas, an extremely dangerous explosion hazard, particularly if fire is in a confined environment (i.e., building, cargo hold, etc.)

Specific Hazards Arising from the Chemical

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Explosion Data

Sensitivity to Mechanical Impact	None.
Sensitivity to Static Discharge	None.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions Use personal protective equipment. Keep people away from and upwind of spill/leak.

Environmental Precautions

Environmental Precautions Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system. Should not be released into the environment.

Methods and materials for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Small spillage: Soak up with inert absorbent material. Pick up and transfer to properly labeled containers. Large spillage: Dike far ahead of liquid spill for later disposal. Take up mechanically and collect in suitable container for disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Remove and wash contaminated clothing before re-use. Do not breathe vapors or spray mist. Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities

Storage Keep out of the reach of children. Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Products Acids. Oxidizing agents. Acetylene. Vinyl compounds.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Lead (powder particle diameter <1mm) 7439-92-1	TWA: 0.05 mg/m ³	TWA: 50 µg/m ³ Action Level: 30 µg/m ³ Poison, See 29 CFR 1910.1025	IDLH: 100 mg/m ³ TWA: 0.050 mg/m ³
Graphite 7782-42-5	-	TWA: 15 mg/m ³ total dust synthetic TWA: 5 mg/m ³ total dust synthetic (vacated) TWA: 2.5 mg/m ³ respirable dust natural (vacated) TWA: 10 mg/m ³ total dust synthetic (vacated) TWA: 5 mg/m ³ respirable fraction synthetic TWA: 15 mppcf natural	IDLH: 1250 mg/m ³ TWA: 2.5 mg/m ³ respirable dust
Copper 7440-50-8	TWA: 0.2 mg/m ³ fume	TWA: 0.1 mg/m ³ fume TWA: 1 mg/m ³ dust and mist (vacated) TWA: 0.1 mg/m ³ Cu dust, fume, mist	IDLH: 100 mg/m ³ dust, fume and mist TWA: 1 mg/m ³ dust and mist TWA: 0.1 mg/m ³ fume

Immediately Dangerous to Life or Health. ACGIH TLV: American Conference of Governmental Industrial Hygienists - Threshold Limit Value. OSHA PEL: Occupational Safety and Health Administration - Permissible Exposure Limits. NIOSH IDLH:

Other Exposure Guidelines Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962 (11th Cir., 1992).

Appropriate engineering controls

Engineering Measures Avoid exceeding of the given occupational exposure limits (see Section 8). Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. Ensure that eyewash stations and safety showers are close to the workstation location.

Individual protection measures, such as personal protective equipment

Eye/Face Protection	Safety glasses with side-shields.
Skin and Body Protection	Impervious clothing. Nitrile gloves.
Respiratory Protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn.
Hygiene Measures	When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Keep away from food, drink and animal feeding stuffs. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical State	Semi-fluid (gel)	Appearance	Copper, Bronze
Odor	Petroleum like	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	Neutral	None known
Melting Point/Range	> 232 °C	None known
Boiling Point/Boiling Range	> 260 °C	None known
Flash Point	> 221 °C	None known
Evaporation rate	< 0.01	BuAc = 1
Flammability (solid, gas)	No data available	None known
Flammability Limits in Air		
upper flammability limit	7%	
lower flammability limit	0.9%	
Vapor Pressure	<0.01 kPa @ 20°C	None known
Vapor Density	>5 (air = 1)	None known
Specific Gravity	2.0	None known
Water Solubility	Negligible	None known
Solubility in other solvents	Largely.	None known
Partition coefficient: n-octanol/water	No data available	None known
Autoignition Temperature	>260 °C	None known
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known
Flammable Properties	Not flammable	
Explosive Properties	No data available	
Oxidizing Properties	No data available	
Other information		
VOC Content (%)	No data available	
VOC (g/l)	None	

10. STABILITY AND REACTIVITY**Reactivity**

No data available.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

Mixture reacts slowly with water resulting in evolution of hydrogen

Hazardous Polymerization

Hazardous polymerization does not occur.

Conditions to avoid

None known based on information supplied.

Incompatible materials

Acids. Oxidizing agents. Acetylene. Vinyl compounds.

Hazardous decomposition products

Metal oxides.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure**Product Information**

Inhalation	Harmful by inhalation.
Eye Contact	Contact with eyes may cause irritation.
Skin Contact	No known hazard in contact with skin.
Ingestion	Harmful if swallowed.

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Lubricating greases A complex combination of hydrocarbons having carbon numbers predominantly in the range of C12 through C50. may contain organic salts of alkali metals, alkaline earth metals, etc.	= 2280 mg/kg (Rat)	-	-

Symptoms related to the physical, chemical and toxicological characteristics

Symptoms No information available.

Delayed and immediate effects and also chronic effects from short and long term exposure

Sensitization No information available.
Mutagenic Effects No information available.
Carcinogenicity May cause cancer. The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Lead (powder particle diameter <1mm)	A3	Group 2A	Reasonably Anticipated	X

ACGIH: (American Conference of Governmental Industrial Hygienists)

A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 2A - Probably Carcinogenic to Humans

NTP: (National Toxicity Program)

Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Reproductive Toxicity Contains a known or suspected reproductive toxin.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Aspiration Hazard No information available.

Numerical measures of toxicity - Product

Acute Toxicity	18.5% of the mixture consists of ingredient(s) of unknown toxicity. <i>The following values are calculated based on chapter 3.1 of the GHS document:</i>
LD50 Oral	1061 mg/kg; Acute toxicity estimate
Inhalation	
dust/mist	4 mg/L; Acute toxicity estimate
Vapor	29.1 mg/L; Acute toxicity estimate

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Lubricating greases A complex combination of hydrocarbons having carbon numbers predominantly in the range of C12 through C50. may contain organic salts of alkali metals, alkaline earth metals, etc. 74869-21-9	>1001 mg/l	LC50 96 h: > 2000 mg/L (Salmo gairdneri)		
Lead (powder particle diameter <1mm) 7439-92-1		LC50 96 h: = 0.44 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 1.17 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 1.32 mg/L static (Oncorhynchus mykiss)		EC50 48 h: = 600 µg/L (water flea)
Zinc (powder) 7440-66-6	EC50 72 h: 0.09 - 0.125 mg/L static (Pseudokirchneriella subcapitata) EC50 96 h: 0.11 - 0.271 mg/L static (Pseudokirchneriella subcapitata)	LC50 96 h: 0.211-0.269 mg/L semi-static (Pimephales promelas) LC50 96 h: 2.16-3.05 mg/L flow-through (Pimephales promelas) LC50 96 h: = 0.24 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 0.41 mg/L static (Oncorhynchus mykiss) LC50 96 h: = 0.45 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 0.59 mg/L semi-static (Oncorhynchus mykiss) LC50 96 h: = 2.66 mg/L static (Pimephales promelas) LC50 96 h: = 3.5 mg/L static (Lepomis macrochirus) LC50 96 h: = 30 mg/L (Cyprinus carpio) LC50 96 h: = 7.8 mg/L static (Cyprinus carpio)		EC50 48 h: 0.139 - 0.908 mg/L Static (Daphnia magna)

Copper 7440-50-8	EC50 96 h: 0.031 - 0.054 mg/L static (Pseudokirchneriella subcapitata) EC50 72 h: 0.0426 - 0.0535 mg/L static (Pseudokirchneriella subcapitata)	LC50 96 h: 0.0068 - 0.0156 mg/L (Pimephales promelas) LC50 96 h: < 0.3 mg/L static (Pimephales promelas) LC50 96 h: = 0.052 mg/L flow-through (Oncorhynchus mykiss) LC50 96 h: = 0.112 mg/L flow-through (Poecilia reticulata) LC50 96 h: = 0.2 mg/L flow-through (Pimephales promelas) LC50 96 h: = 0.3 mg/L semi-static (Cyprinus carpio) LC50 96 h: = 0.8 mg/L static (Cyprinus carpio) LC50 96 h: = 1.25 mg/L static (Lepomis macrochirus)	-	EC50 48 h: = 0.03 mg/L Static (Daphnia magna)
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Persistence and Degradability No information available.

Bioaccumulation No information available.

Other Adverse Effects
No information available.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).

Contaminated Packaging Dispose of in accordance with federal, state, and local regulations.

US EPA Waste Number D008

Chemical Name	RCRA	RCRA - Basis for Listing	RCRA - D Series Wastes	RCRA - U Series Wastes
Lead (powder particle diameter <1mm) - 7439-92-1	(hazardous constituent - no waste number)	Included in waste streams: F035, F037, F038, F039, K002, K003, K005, K046, K048, K049, K051, K052, K061, K062, K064, K065, K066, K069, K086, K100, K176	= 5.0 mg/L regulatory level	

This product contains one or more substances that are listed with the State of California as a hazardous waste.

Chemical Name	California Hazardous Waste
Lead (powder particle diameter <1mm)	Toxic
Zinc (powder)	Ignitable powder
Copper	Toxic

14. TRANSPORT INFORMATION

DOT

UN-Number UN3082
Proper shipping name Environmentally hazardous substances, liquid, n.o.s.
Hazard Class 9
Subsidiary Class
Packing Group III
Description UN3082, Environmentally hazardous substances, liquid, n.o.s.(Lead, Zinc (powder)), 9, , III, Marine Pollutant
Emergency Response Guide Number 171

TDG

UN-Number UN3082

Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
Description	UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.(Lead, Zinc (powder)), 9, III,Marine Pollutant

MEX

UN-Number	UN3082
Proper Shipping Name	Environmentally hazardous substances, liquid, n.o.s.
Hazard Class	9
Packing Group	III
Description	UN3082 Environmentally hazardous substances, liquid, n.o.s.(Lead, Zinc (powder)), 9, III

ICAO

UN-Number	UN3082
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s.(Lead, Zinc (powder)), 9, III

IATA

UN-Number	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
ERG Code	9L
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s.(Lead, Zinc (powder)), 9, III

IMDG/IMO

UN-Number	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
EmS No.	F-A, S-F
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s.(Lead, Zinc (powder)), 9, III,Marine Pollutant

RID

UN-Number	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
Classification Code	M6
Description	UN3082 Environmentally hazardous substance, liquid, n.o.s.(Lead, Zinc (powder)), 9, III

ADR

UN-Number	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
Classification Code	M6
Tunnel Restriction Code	(E)
Description	UN3082 Environmentally hazardous substance, liquid, n.o.s.(Lead, Zinc (powder)), 9, III(E)

ADN

UN-No	UN3082
Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
Hazard Class	9
Packing Group	III
Classification Code	M6
Special Provisions	274, 335, 601
Description	UN3082 Environmentally hazardous substance, liquid, n.o.s.(Lead, Zinc (powder)), 9, III
Hazard Labels	9
Limited Quantity	LQ7

15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL Complies

Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDL - Canadian Domestic Substances List/Non-Domestic Substances List

U.S. Federal Regulations

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372:

Chemical Name	CAS-No	Weight %	SARA 313 - Threshold Values %
Lead (powder particle diameter <1mm)	7439-92-1	29.9-31.1	0.1
Zinc (powder)	7440-66-6	11.6-12.8	1.0
Copper	7440-50-8	3.0-3.60	1.0

SARA 311/312 Hazard Categories

Acute Health Hazard Yes
Chronic Health Hazard No
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

Clean Water Act

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42):

Chemical Name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Lead (powder particle diameter <1mm)		X	X	
Zinc (powder)		X	X	
Copper		X	X	

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302):

Chemical Name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Lead (powder particle diameter <1mm)	10 lb		RQ 10 lb final RQ RQ 4.54 kg final RQ
Zinc (powder)	1000 lb		RQ 454 kg final RQ RQ 1000 lb final RQ
Copper	5000 lb		RQ 5000 lb final RQ RQ 2270 kg final RQ

U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	CAS-No	California Prop. 65
Lead (powder particle diameter <1mm)	7439-92-1	Carcinogen Developmental Female Reproductive Male Reproductive

U.S. State Right-to-Know Regulations

"X" designates that the ingredients are listed on the state right to know list.

Chemical Name	New Jersey	Massachusetts	Pennsylvania	Illinois	Rhode Island

Lead (powder particle diameter <1mm)	X	X	X	X	X
Graphite	X	X	X		X
Zinc (powder)	X	X	X		X
Copper	X	X	X	X	X
Calcium oxide	X	X	X		X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION

NFPA	Health Hazard 1	Flammability 1	Instability 0	Physical and Chemical Hazards -
HMIS	Health Hazard 1*	Flammability 1	Physical Hazard 0	Personal Protection X

**Indicates a chronic health hazard.*

Prepared By Product Stewardship
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Issuing Date 21-Oct-2014
Revision Date 21-Oct-2014
Revision Note Initial Release.

General Disclaimer

The information provided on this SDS is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.

End of Safety Data Sheet