



SAFETY DATA SHEET

Issuing Date 20-Oct-2015

Revision Date 20-Oct-2015

Revision Number 0

Section 1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product Code(s) 205

Product Name Z-50 ARCTIC™

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Lubricants, Greases and Release Products, Sealant

Uses advised against No information available

1.3. Details of the supplier of the safety data sheet

Importer	Company
Jet-Lube (UK) Ltd	Jet-Lube, Inc.
Jet-Lube House	4849 Homestead Rd.
Reform Road	Suite 232
Maidenhead	Houston, Texas 77028
Berkshire UK	TEL: 713-670-5700 (7:00 a.m. - 5 p.m.)
SL6 8BY	
TEL: 44 1628-631913 (8:00 a.m. - 5:00 p.m.)	

For further information, please contact

E-mail Address doldiges@jetlube.com

1.4. Emergency telephone number

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

Europe	112
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Section 2. Hazards identification

2.1. - Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Acute Aquatic Toxicity	Category 1
Chronic Aquatic Toxicity	Category 1

Physical Hazards

None

Classification according to EU Directives 67/548/EEC or 1999/45/EC

The preparation is classified as dangerous in accordance with Directive 1999/45/EC.

Symbol(s) N - Dangerous for the environment

R-code(s) N;R50-53

For the full text of the R-phrases mentioned in this Section, see Section 16

2.2. Label Elements



Signal Word

Warning

Hazard Statements

H410 - Very toxic to aquatic life with long lasting effects

Precautionary Statements

P273 - Avoid release to the environment

P501 - Dispose of contents/ container to an approved waste disposal plant

P391 - Collect spillage

2.3. Other information

Section 3. Composition/information on ingredients

3.1. Substances

Chemical Name	EC-No	CAS-No	Weight %	Classification	EU - GHS Substance Classification	REACH No.
Zinc (powder)	231-175-3	7440-66-6	45-55	N;R50-53	Aquatic acute 1 (H400) Aquatic chronic 1 (H410)	01-2119467174-37 -XXXX

For the full text of the R-phrases mentioned in this Section, see Section 16

For the full text of the H-Statements mentioned in this Section, see Section 16

Section 4. First aid measures

4.1. Description of 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.

Ingestion

Immediate medical attention is required. Clean mouth with water. Drink plenty of water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or Poison Control Center immediately.

Inhalation

Move to fresh air. If not breathing, give artificial respiration. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Consult a physician.

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.

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4.2. Most important symptoms and effects, both acute and delayed

Most Important Symptoms/Effects No information available.

4.3. Indication of immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

Section 5. Fire-fighting measures**5.1. Extinguishing media****Suitable Extinguishing Media**

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

Extinguishing media which must not be used for safety reasons

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.)

5.2. Special hazards arising from the substance or mixture**Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases**

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

5.3. Advice for firefighters**Special protective equipment for fire-fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

Section 6. Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

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

6.2. Environmental precautions

Do not allow material to contaminate ground water system. Do not flush into surface water or sanitary sewer system.

6.3. Methods and materials for containment and cleaning up

Prevent further leakage or spillage if safe to do so.

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.

6.4. Reference to other sections

See Section 12 for additional information.

Section 7. Handling and storage**7.1. Precautions for Safe Handling****Handling**

Avoid contact with skin, eyes and clothing. Wear personal protective equipment. 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.

Hygiene Measures

When using, do not eat, drink or smoke. Provide regular cleaning of equipment, work area and clothing. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product. Keep away from food, drink and animal feeding stuffs.

7.2. Conditions for safe storage, including any incompatibilities

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

7.3. Specific end use(s)**Exposure Scenario**

No information available.

Other Guidelines

No information available.

Section 8. Exposure controls/personal protection**8.1. Control parameters****Exposure Limits**

Chemical Name	EU	The United Kingdom	France	Spain	Germany
Zinc (powder) 7440-66-6					MAK: 0.1 mg/m ³ MAK: 2 mg/m ³ Ceiling / Peak: 0.4 mg/m ³ Ceiling / Peak: 4 mg/m ³

Biological occupational exposure limits

Derived No Effect Level No information available
Predicted No Effect Concentration (PNEC) No information available.

8.2. Exposure 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.

Personal protective equipment**Eye Protection**

Safety glasses with side-shields.

Skin and Body Protection

Impervious clothing.

Hand Protection

Nitrile gloves

Respiratory Protection

No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required. In case of insufficient ventilation wear suitable respiratory equipment.

Recommended Filter type:

Respiratory protection complying with EN 141. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace

Environmental Exposure Controls

Local authorities should be advised if significant spillages cannot be contained. Do not allow material to contaminate ground water system. Prevent product from entering drains.

Section 9. Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical State Semi-fluid (gel) **Appearance** Gray
Odor Petroleum like

<u>Property</u>	<u>Values</u>	<u>Remarks/ - Method</u>
pH	Neutral	None known
Melting Point/Range	> 138 °C / 280.4 °F	None known
Boiling Point/Boiling Range	< 316 °C / 600 °F	None known
Flash Point	160 °C / 320 °F	None known

Evaporation rate	No data available	None known
Flammability (solid, gas)	No data available	None known
Vapor Pressure	No data available	None known
Vapor Density	No data available	None known
Relative Density	1.78	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	No data available	None known
Decomposition Temperature	No data available	None known
Viscosity	No data available	None known
Explosive Properties	No information available	
Oxidizing Properties	No information available	

9.2. Other information

VOC Content (%)	None
Flammability Limits in Air	No data available

Section 10. Stability and reactivity

10.1. Reactivity

No data available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

Mixture reacts slowly with water resulting in evolution of hydrogen

10.4. Conditions to avoid

None known based on information supplied.

10.5. Incompatible materials

Acids. Oxidizing agents.

10.6. Hazardous decomposition products

Metal oxides.

Section 11. Toxicological information

11.1.

Acute Toxicity

Product Information

Product does not present an acute toxicity hazard based on known or supplied information.

Inhalation

None known.

Eye Contact

None known.

Skin Contact

None known.

Ingestion

Not an expected route of exposure. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

Skin corrosion/irritation

Not applicable.

Eye damage/irritation

Not applicable.

Sensitization

None known.

Mutagenic Effects

None known.

Carcinogenic Effects

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

Reproductive Toxicity	No information available.
Developmental Toxicity	No information available.
STOT - single exposure	No information available.
STOT - repeated exposure	No information available.
Target Organ Effects	Eyes. Respiratory system. Skin.
Aspiration Hazard	Due to the viscosity, this product does not present an aspiration hazard

Section 12. Ecological information

12.1. Toxicity

Ecotoxicity Effects

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Chemical Name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Zinc (powder)	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)

12.2. Persistence and degradability

No information available.

12.3. Bioaccumulative potential.

No information available.

12.4. Mobility in soil

This information is not available.

12.5. Results of PBT and vPvB assessment

No information available.

12.6. Other adverse effects

This product does not contain any known or suspected endocrine disruptors.

Section 13. Disposal considerations

13.1. Waste treatment methods

Waste from Residues / Unused Products	Should not be released into the environment. Where possible recycling is preferred to disposal or incineration. If recycling is not practicable, dispose of in compliance with local regulations
Contaminated Packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.
Other Information	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used.

Section 14. Transport information

IMDG/IMO

14.1. UN-Number	UN3082
14.2. Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Hazard Class	9
14.4. Packing Group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zinc (powder)), 9, III
14.5. Marine Pollutant	Product is a marine pollutant according to the criteria set by IMDG/IMO.
Environmental hazard	yes
14.6. Special Provisions	None.
EmS No.	F-A, S-F
14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available.

RID

14.1. UN-Number	UN3082
14.2. Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Hazard Class	9
14.4. Packing Group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zinc (powder)), 9, III
14.5. Environmental hazard	yes
14.6. Special Provisions	None.
Classification Code	M6

ADR

14.1. UN-Number	UN3082
14.2. Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Hazard Class	9
ADR/RID-Labels	9
14.4. Packing Group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zinc (powder)), 9, III, (E)
14.5. Environmental hazard	yes
14.6. Special Provisions	None.
Classification Code	M6
Tunnel Restriction Code	(E)

ICAO

14.1. UN-Number	UN3082
14.2. Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Hazard Class	9
14.4. Packing Group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s., 9, III

14.5. Environmental hazard	yes
14.6. Special Provisions	None.
IATA	
14.1. UN-Number	UN3082
14.2. Proper Shipping Name	Environmentally hazardous substance, liquid, n.o.s.
14.3. Hazard Class	9
14.4. Packing Group	III
Description	UN3082, Environmentally hazardous substance, liquid, n.o.s. (Zinc (powder)), 9, III
14.5. Environmental hazard	yes
14.6. Special Provisions	None.
ERG Code	9L

Section 15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

WGK Classification Water endangering class = 3

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work .

Take note of Dir 94/33/EC on the protection of young people at work. .

Take note of Dir 92/85/EEC on the safety and health at work of pregnant workers

International Inventories

TSCA	Complies
EINECS/ELINCS	Complies
DSL/NDSL	Complies
PICCS	Complies
ENCS	Complies
IECSC	Complies
AICS	Complies
KECL	Complies

Legend

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

EINECS/ELINCS - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

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

PICCS - Philippines Inventory of Chemicals and Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

AICS - Australian Inventory of Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

15.2. Chemical Safety Assessment

No information available

Section 16. Other information

Full text of R-phrases referred to under Sections 2 and 3

R53 - May cause long-term adverse effects in the aquatic environment

R50 - Very toxic to aquatic organisms

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

Full text of H-Statements referred to under sections 2 and 3

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

Key literature references and sources for data

www.ChemADVISOR.com/

Issuing Date 20-Oct-2015

Revision Date 20-Oct-2015

Revision Note Initial Release.

This safety data sheet complies with the requirements of Commission Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No. 1907/2006

General Disclaimer

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End of Safety Data Sheet