

ProSL Aerosol

Version number: GHS 1.0

Date of compilation: 2018-02-06

SECTION 1: Identification

1.1 Product identifier

Trade name **ProSL Aerosol**
 Alternative name(s) ProSL Corrosion Inhibitor & Penetrant

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

Relevant identified uses Lubricant, release product
 Corrosion inhibitor

1.3 Details of the supplier of the safety data sheet

Aerospace Lubricants, Inc.
 1600 Georgesville Rd.
 43228 Columbus
 United States

Telephone: +1 (614) 878-3600
 Telefax: +1 (614) 878-1600
 e-mail: info@aerospacelubricants.com

e-mail (competent person) sds@aerospacelubricants.com

1.4 Emergency telephone number

Emergency information service (ChemTel, 24 hrs) +01-813-248-0585
 +1 (800) 255-3924 (USA & Canada)

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Section	Hazard class	Cat-egory	Hazard class and category	Hazard state-ment
B.3	aerosols	1	Aerosol 1	H222,H229
A.1I	acute toxicity (inhal.)	4	Acute Tox. 4	H332
A.2	skin corrosion/irritation	2	Skin Irrit. 2	H315
A.8D	specific target organ toxicity - single exposure (narcotic ef-fects, drowsiness)	3	STOT SE 3	H336

For full text of abbreviations: see SECTION 16.

2.2 Label elements

Labelling acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

- Signal word danger

- Pictograms

GHS02, GHS07



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- Hazard statements

H222	Extremely flammable aerosol.
H229	Pressurized container: may burst if heated.
H315	Causes skin irritation.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.

- Precautionary statements

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of water.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312	Call a POISON CENTER/doctor if you feel unwell.
P321	Specific treatment (see on this label).
P362+P364	Take off contaminated clothing and wash it before reuse.
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.
P501	Dispose of contents/container to industrial combustion plant.

- Hazardous ingredients for labelling propane, butane, Solvent naphtha (petroleum), medium aliph., Distillates (petroleum), hydro-treated light

2.3 Other hazards

This material is combustible, but will not ignite readily.

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.



SECTION 3: Composition/information on ingredients

3.1 Substances

Not relevant (mixture)

3.2 Mixtures






Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
Distillates (petroleum), hydrotreated light	CAS No 64742-47-8	10 - < 25	Flam. Liq. 4 / H227 Acute Tox. 3 / H331 Skin Irrit. 2 / H315 STOT SE 3 / H336 Asp. Tox. 1 / H304	
Solvent naphtha (petroleum), medium aliph.	CAS No 64742-88-7	10 - < 25	Flam. Liq. 4 / H227 Acute Tox. 3 / H331 Skin Irrit. 2 / H315 STOT SE 3 / H336 Asp. Tox. 1 / H304	

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Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms
propane	CAS No 74-98-6	10 - < 25	Flam. Gas 1 / H220 Press. Gas C / H280 sA / OSHA002 STOT SE 3 / H336	
butane	CAS No 106-97-8	10 - < 25	Flam. Gas 1 / H220 Press. Gas C / H280 STOT SE 3 / H336	
Distillates (petroleum), solvent-refined heavy par- affinic	CAS No 64741-88-4	1 - < 5	Acute Tox. 4 / H332	
Calcium carbonate	CAS No 471-34-1 7440-70-2	1 - < 5	Acute Tox. 4 / H332	
Distillates (petroleum), solvent-refined heavy naphthenic	CAS No 64741-96-4	1 - < 5	Acute Tox. 4 / H332	

For full text of abbreviations: see SECTION 16.

SECTION 4: First-aid measures

4.1 Description of first-aid measures

General notes

Do not leave affected person unattended. Remove victim out of the danger area. Keep affected person warm, still and covered. Take off immediately all contaminated clothing. In all cases of doubt, or when symptoms persist, seek medical advice. In case of unconsciousness place person in the recovery position. Never give anything by mouth.

Following inhalation

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician. Provide fresh air.

Following skin contact

Wash with plenty of soap and water.

Following eye contact

Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart.

Following ingestion

Rinse mouth with water (only if the person is conscious). Do NOT induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed

Headaches and dizziness may occur. Drowsiness.

4.3 Indication of any immediate medical attention and special treatment needed

none

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SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Water spray, BC-powder

Unsuitable extinguishing media

Water jet

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂)

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Co-ordinate firefighting measures to the fire surroundings. Do not allow firefighting water to enter drains or water courses. Collect contaminated firefighting water separately. Fight fire with normal precautions from a reasonable distance.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Remove persons to safety.

For emergency responders

Wear breathing apparatus if exposed to vapors/dust/aerosols/gases.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it. If substance has entered a water course or sewer, inform the responsible authority.

6.3 Methods and material for containment and cleaning up

Advices on how to contain a spill

Covering of drains

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Recommendations

- Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation. Use only in well-ventilated areas.

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Advice on general occupational hygiene

Wash hands after use. Do not eat, drink and smoke in work areas. Remove contaminated clothing and protective equipment before entering eating areas. Never keep food or drink in the vicinity of chemicals. Never place chemicals in containers that are normally used for food or drink. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Managing of associated risks

- Flammability hazards

Do not spray on an open flame or other ignition source. Protect from sunlight.

- Ventilation requirements

Keep any substance that emits harmful vapors or gases in a place that allows these to be permanently extracted.

- Packaging compatibilities

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

7.3 Specific end use(s)

See section 16 for a general overview.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values (Workplace Exposure Limits)								
Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Source
US	n-butane	106-97-8	TLV®			1,000		ACGIH®
US	propane	74-98-6	PEL	1,000	1,800			29 CFR 1910.1000
US	propane	74-98-6	TLV®					ACGIH®

Notation

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period unless otherwise specified
TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Calcium carbonate	471-34-1 7440-70-2	DNEL	4.26 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Calcium carbonate	471-34-1 7440-70-2	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)

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8.2 Exposure controls

Appropriate engineering controls

General ventilation.

Individual protection measures (personal protective equipment)

Eye/face protection

Wear eye/face protection.

Skin protection

- Hand protection

Wear protective gloves.

- Other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended. Wash hands thoroughly after handling.

Respiratory protection

During spraying wear suitable respiratory equipment.

Environmental exposure controls

Use appropriate container to avoid environmental contamination. Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state	aerosol (spray aerosol)
Color	light brown
Odor	slight odor

Other safety parameters

pH (value)	
Melting point/freezing point	not determined
Initial boiling point and boiling range	-161.5 °C at 1,013 hPa
Flash point	61 °C at 101.3 kPa
Evaporation rate	not determined
Flammability (solid, gas)	flammable aerosol in accordance with GHS criteria
Explosive limits	not determined
Vapor pressure	3.7 kPa at 37.8 °C
Density	not determined

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Vapor density	this information is not available
Relative density	information on this property is not available
Solubility(ies)	not determined

Partition coefficient

- n-octanol/water (log KOW)	this information is not available
Auto-ignition temperature	220 °C
Viscosity	not relevant (aerosol)
Explosive properties	none
Oxidizing properties	none

9.2 Other information

Solvent content	72 %
Solid content	3 %
Propellant content	25 %
Temperature class (USA, acc. to NEC 500)	T2D (maximum permissible surface temperature on the equipment: 215°C)

SECTION 10: Stability and reactivity

10.1 Reactivity

Concerning incompatibility: see below "Conditions to avoid" and "Incompatible materials". The mixture contains reactive substance(s). Risk of ignition.

10.2 Chemical stability

See below "Conditions to avoid".

10.3 Possibility of hazardous reactions

No known hazardous reactions.

10.4 Conditions to avoid

Do not spray on an open flame or other ignition source. Keep away from heat.

Hints to prevent fire or explosion

Protect from sunlight.

10.5 Incompatible materials

Oxidizers

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10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known. Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to OSHA "Hazard Communication Standard" (29 CFR 1910.1200)

Acute toxicity

Harmful if inhaled.

GHS of the United Nations, annex 4: May be harmful in contact with skin.

- Acute toxicity estimate (ATE)

Inhalation: vapor 14.25 mg/l/4h

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
Distillates (petroleum), hydrotreated light	64742-47-8	inhalation: vapor	5.28 mg/l/4h
Solvent naphtha (petroleum), medium aliph.	64742-88-7	inhalation: vapor	5.28 mg/l/4h
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	inhalation: vapor	11 mg/l/4h
Distillates (petroleum), solvent-refined heavy paraffinic	64741-88-4	inhalation: dust/mist	2.18 mg/l/4h
Calcium carbonate	471-34-1 7440-70-2	inhalation: dust/mist	3 mg/l/4h
Distillates (petroleum), solvent-refined heavy naphthenic	64741-96-4	inhalation: vapor	11 mg/l/4h
Distillates (petroleum), solvent-refined heavy naphthenic	64741-96-4	inhalation: dust/mist	2.18 mg/l/4h

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

Respiratory or skin sensitization

Shall not be classified as a respiratory or skin sensitizer.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

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Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential

Data are not available.

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Sewage disposal-relevant information

Do not empty into drains. Avoid release to the environment. Refer to special instructions/safety data sheets.

Waste treatment of containers/packages

Only packagings which are approved (e.g. acc. to DOT) may be used. Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

Remarks

Please consider the relevant national or regional provisions. Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities.

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SECTION 14: Transport information


- | | |
|--|---|
| 14.1 UN number | 1950 |
| 14.2 UN proper shipping name | Aerosols |
| 14.3 Transport hazard class(es) | |
| Class | 2.1 (gases) (aerosol) (flammable) |
| 14.4 Packing group | not assigned to a packing group |
| 14.5 Environmental hazards | hazardous to the aquatic environment |
| Environmentally hazardous substance (aquatic environment) | Distillates (petroleum), hydrotreated light |
| 14.6 Special precautions for user | |
| There is no additional information. | |
| 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code | |
| The cargo is not intended to be carried in bulk. | |

Information for each of the UN Model Regulations

Transport of dangerous goods by road or rail (49 CFR US DOT)

Index number	1950
Proper shipping name	Aerosols
- Particulars in the shipper's declaration	UN1950, Aerosols, 2.1, environmentally hazardous
Class	2.1
Danger label(s)	2.1, fish and tree
	
Environmental hazards	yes (hazardous to the aquatic environment)
Special provisions (SP)	N82
ERG No	126


International Maritime Dangerous Goods Code (IMDG)

UN number	1950
Proper shipping name	AEROSOLS
Class	2.1
Marine pollutant	yes (hazardous to the aquatic environment)
Danger label(s)	2.1, fish and tree
	
Special provisions (SP)	63, 190, 277, 327, 344, 381, 959
Excepted quantities (EQ)	E0
Limited quantities (LQ)	1 L
EmS	F-D, S-U

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Stowage category	-
International Civil Aviation Organization (ICAO-IATA/DGR)	
UN number	1950
Proper shipping name	Aerosols, flammable
Class	2.1
Environmental hazards	YES (hazardous to the aquatic environment)
Danger label(s)	2.1
	
Special provisions (SP)	A145, A167
Excepted quantities (EQ)	E0
Limited quantities (LQ)	30 kg

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Industry or sector specific available guidance(s)

NPCA-HMIS® III

Hazardous Materials Identification System. American Coatings Association.

Category	Rating	Description
Chronic	*	chronic (long-term) health effects may result from repeated overexposure
Health	2	temporary or minor injury may occur
Flammability	4	material that rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature or that is readily dispersed in air and burn readily
Physical hazard	1	material that is normally stable but can become unstable (self-react) at high temperatures and pressures. Material may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors
Personal protection	-	

NFPA® 704

National Fire Protection Association: Standard System for the Identification of the Hazards of Materials for Emergency Response (United States).

Category	Degree of hazard	Description
Flammability	4	material that rapidly or completely vaporizes at atmospheric pressure and normal ambient temperature or that is readily dispersed in air and burn readily
Health	2	material that, under emergency conditions, can cause temporary incapacitation or residual injury
Instability	0	material that is normally stable, even under fire conditions
Special hazard		

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15.2 Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information, including date of preparation or last revision

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
29 CFR 1910.1000	29 CFR 1910.1000, Tables Z-1, Z-2, Z-3 - Occupational Safety and Health Standards: Toxic and Hazardous Substances (permissible exposure limits)
49 CFR US DOT	49 CFR § 40 U.S. Department of Transportation
ACGIH®	From ACGIH®, 2017 TLVs® and BEIs® Book. Copyright 2017. Reprinted with permission. Information on the proper use of the TLVs® and BEIs®: http://www.acgih.org/tlv-bei-guidelines/policies-procedures-presentations/tlv-bei-position-statement
Acute Tox.	Acute toxicity
Asp. Tox.	Aspiration hazard
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
DOT	Department of Transportation (USA)
EmS	Emergency Schedule
ERG No	Emergency Response Guidebook - Number
Flam. Gas	Flammable gas
Flam. Liq.	Flammable liquid
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
NPCA-HMIS® III	National Paint and Coatings Association: Hazardous Materials Identification System - HMIS® III, Third Edition
OSHA	Occupational Safety and Health Administration (United States)
PBT	Persistent, Bioaccumulative and Toxic
PEL	Permissible exposure limit
PNEC	Predicted No-Effect Concentration
ppm	Parts per million
Press. Gas	Gas under pressure
RTECS	Registry of Toxic Effects of Chemical Substances (database of NIOSH with toxicological information)
sA	Simple asphyxiants
Skin Corr.	Corrosive to skin

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Abbr.	Descriptions of used abbreviations
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TLV®	Threshold Limit Values
TWA	Time-weighted average
vPvB	Very Persistent and very Bioaccumulative

Key literature references and sources for data

OSHA Hazard Communication Standard (HCS), 29 CFR 1910.1200.

Transport of dangerous goods by road or rail (49 CFR US DOT). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties: The classification is based on tested mixture.

Health hazards, Environmental hazards: The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in chapter 2 and 3)

Code	Text
H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H227	Combustible liquid.
H229	Pressurized container: may burst if heated.
H280	Contains gas under pressure; may explode if heated.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H336	May cause drowsiness or dizziness.
OSHA002	May displace oxygen and cause rapid suffocation.

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.