SAFETY DATA SHEET

ORION 90 AEROSOL

The safety data sheet is in accordance with Commission Regulation (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

SECTION 1: Identification of the substance / mixture and of the company / undertaking

Date issued	20.11.2018
Revision date	14.09.2020

1.1. Product identifier

Product name	ORION 90 AEROSOL
Article no.	BL090S, 300108

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

Product group	Aerosol.
Use of the substance / mixture	Lubricant.

1.3. Details of the supplier of the safety data sheet

Distributor

Company name	Relekta AS
Office address	Innspurten 1A
Postal address	Postboks 6169 Etterstad
Postcode	0663
City	Oslo
Country	Norway
Telephone number	+47 22 66 04 00
Fax	+47 22 66 04 01
Email	post@relekta.no
Website	www.relekta.no
Enterprise No.	NO 831 881 372

1.4. Emergency telephone number

Emergency telephone	Telephone number: +47 22 59 13 00 Description: Norwegian Poison Information Center

	Telephone number: 112 Description: Request Poison Information

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP / GHS]	Aerosol 1; H222 Aerosol 1; H229 Skin Irrit. 2; H315 Aquatic Chronic 3; H412
Substance / mixture hazardous properties	Aerosol cans of extremely flammable contents. Pressurized container: May explode when heated. Causes skin irritation. Harmful to aquatic life with long lasting effects.

2.2. Label elements

Hazard pictograms (CLP)

Signal word	Danger
Hazard statements	H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated. H315 Causes skin irritation. H412 Harmful to aquatic life with long lasting effects.
Precautionary statements	P102 Keep out of reach of children. 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. P273 Avoid release to the environment. P410+P412 Protect from sunlight. Do no expose to temperatures exceeding 50 °C / 122°F. P501 Dispose of contents / container to approved depot.

2.3. Other hazards

PBT / vPvB	The chemical contains no PBT or vPvB substances.
Hazard description, general	Aerosol cans may explode in a fire.
Physicochemical effects	Vapours may be ignited by a spark, a hot surface or an ember. Vapours are heavier than air and may travel along the floor and in the bottom of containers. Can form explosive gas-air mixtures.
Health effect	Prolonged and repeated skin contact will cause defatting and possible irritation.

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents	Notes
Distillates (petroleum) , hydrotreated heavy naphtenic	CAS No.: 64742-52-5 EC No.: 265-155-0 REACH Reg. No.: 01-2119467170-45		70 - 100 %	2
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	EC No.: 927-510-4 REACH Reg. No.: 01-2119475515-33	Flam. Liq. 2; H225 Asp. tox. 1; H304 Skin Irrit. 2; H315 STOT SE 3; H336 Aquatic Chronic 2; H411	10 - 20 %	
Calcium Carbonate	CAS No.: 1317-65-3 EC No.: 215-279-6		2,5 - -5,0 %	6
Dilithium sebacate	CAS No.: 19370-86-6 REACH Reg. No.: 01-2120119384-60	Acute Tox. 4; H302	1 - 2,5 %	
Phosphorodithioic acid, O, O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts	CAS No.: 85940-28-9 EC No.: 288-917-4 REACH Reg. No.: 01-2119521201-61	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Aquatic Chronic 2; H411	0,8 < 2,3 %	

[2]Substance with a workplace exposure limit
[6]Substance listed as additional information

Description of the mixture	Contains CAS No. 142-82-5 Heptane as part of CAS No. 64742-49-0.
Substance comments	For substances without REACH registration number in section 3.2, no information has been provided by the subcontractor or manufacturer. See section 16 for explanation of hazard statements (H) listed above.

SECTION 4: First aid measures

4.1. Description of first aid measures

General	Emergency telephone number: see section 1.4. In case of unconsciousness or severe accidents, call 113.
Inhalation	Remove victim immediately from source of exposure. Fresh air and rest. Get medical attention if any discomfort continues.
Skin contact	Remove contaminated clothing. Wash the skin immediately with soap and water. Contact physician if irritation persists.
Eye contact	Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. By prolonged rinsing, use luke warm water to avoid damage to the eye. Contact physician if discomfort continues.
Ingestion	Not likely. Give some cream or vegetable oil. Do not induce vomiting. Get medical attention if any discomfort continues.

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

Acute symptoms and effects	Inhalation: High concentrations may cause drowsiness and fatigue. The chemical irritates the skin and can cause itching, burning and redness. Defats the skin. Contains components which may penetrate the skin. May cause eye irritation. Symptoms may be stinging pain and redness in the

	eyes. Ingestion may cause discomfort.

4.3. Indication of any immediate medical attention and special treatment needed

Other information	Treat symptomatically. No specific information from the manufacturer.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Dry-powder, carbon dioxide (CO2), water mist, alcohol resistant foam.
Improper extinguishing media	Do not use water jet.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	Extremely flammable aerosol. Aerosol containers can explode when heated, due to excessive pressure build-up. Can form explosive gas-air mixtures. Vapours are heavier than air and may spread near ground to sources of ignition.
Hazardous combustion products	May include, but is not limited to: Carbon dioxide (CO2). Carbon monoxide (CO). Oxides of nitrogen (NOx) Oxides of phosphorous (POx). Sulphurous gases (SOx). Hydrogen fluoride (HF). Halogenated hydrocarbons.

5.3. Advice for firefighters

Personal protective equipment	Use compressed air equipment when the chemical is involved in fire. In case of evacuation, an approved protection mask should be used. See also section 8.
Other information	If there is no risk involved, move the containers to a safe place. If not possible, cool with water from a safe position. Extinguishing water must not be discharged into drains.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	Keep away from sources of ignition - No smoking.
Personal protection measures	Provide adequate ventilation. Use protective equipment as referred to in section 8. Avoid contact with eyes and skin.

6.2. Environmental precautions

Environmental precautionary measures	Do not allow to enter into sewer, water system or soil.

6.3. Methods and material for containment and cleaning up

Clean up	Aerosol cans are collected mechanically. Content of the spray can: Absorb in vermiculite, dry sand or earth and place into containers. Do not use sawdust or other combustible material. Collect in a suitable container and dispose as hazardous waste according to section 13.

6.4. Reference to other sections

Other instructions	Solvent vapours may form explosive mixtures with air on the ground. See also sections 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	Provide adequate ventilation. Use protective equipment as referred to in section 8. Avoid inhalation of aerosols and contact with skin and eyes.

Protective safety measures

Safety measures to prevent fire	Do not use near naked flames or glowing materials. Keep away from sources of ignition - No smoking. Pressurized container: Do not pierce or burn, even after use. Use explosion-proof electrical/ventilating/lighting/.../equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Pressurized container. Do not expose to temperatures exceeding 50 °C.
Additional information	The vapours are heavier than air and will spread along the floor. Vapors may form explosive mixtures with air.
Advice on general occupational hygiene	Do not eat, drink or smoke during work. Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in tightly closed original container in a well-ventilated place. Flammable compressed gas storage.
Conditions to avoid	Keep away from heat, sparks and open flame. Protect from sunlight.

Conditions for safe storage

Advice on storage compatability	Keep away from: Strong oxidizing agents. Food and feed.
Storage temperature	Value: < 50 °C

7.3. Specific end use(s)

Specific use(s)	See section 1.2.

SECTION 8: Exposure controls / personal protection

8.1. Control parameters

Substance	Identification	Exposure limits	TWA Year
Distillates (petroleum) , hydrotreated heavy naphthenic	CAS No.: 64742-52-5	Limit value (8 h) : 550 mg/m³	
Heptane	CAS No.: 142-82-5	Limit value (8 h) : 500 ppm Limit value (8 h) : 2085 mg/m³	

Control parameters comments	Contains CAS No. 142-82-5 Heptane as part of CAS No. 64742-49-0. References (laws/regulations): EH40/2005 Workplace exposure limits, with later amendments. Explanation of the notations: E = The EU has adopted a recommended limit value for the substance.

8.2. Exposure controls

Precautionary measures to prevent exposure

Technical measures to prevent exposure	Provide adequate ventilation. The personal protective equipment must be CE-marked and the latest version of the standards shall be used. The protective equipment and the specified standards recommended below are only suggestions, and should be selected on advice from the supplier of such equipment. A risk assessment of the work place/work activities (the actual risk) may lead to other control measures. The protection equipment's suitability and durability will depend on application.

Eye / face protection

Eye protection equipment	Description: Risk of splashes: Wear tight-fitting goggles or face shield. Reference to relevant standard: EN 166 (Personal eye-protection. Specifications).
Additional eye protection measures	Eye wash facilities should be available at the work place. Either a fixed eye wash facility connected to the drinking water (preferably warm water) or a portable disposable unit.

Hand protection

Suitable gloves type	Nitrile.
Breakthrough time	Comments: Not specified by the manufacturer.
Thickness of glove material	Comments: Not specified by the manufacturer.
Hand protection equipment	Description: Use chemical resistant gloves. The recommended material of gloves is recommended after a study of the single components in the chemical. Glove thickness must be chosen in consultation with the glove supplier, who can inform about the breakthrough time for the glove. The gloves abilities may vary among the different glove manufacturers. Reference to relevant standard: EN 420 (Protective gloves - General requirements and test methods). EN ISO 374 (Protective gloves against chemicals and micro-organisms).
Additional hand protection measures	Replace gloves if signs of wear and tear.

Skin protection

Recommended protective clothing	Description: Wear appropriate protective clothing to protect against possible skin contact.
Additional skin protection measures	Emergency shower should be available at the workplace.

Respiratory protection

Recommended respiratory protection	Description: Normally not required. In case of inadequate ventilation: Use filtercombination ABEK/P2 by spraying or aerosol formation. Reference to relevant standard: EN 14387 (Respiratory protective devices. Gas filter(s) and combined filter(s). Requirements, testing, marking).

Appropriate environmental exposure control

Environmental exposure controls	Do not allow to enter into sewer, water system or soil.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Aerosol.
Colour	Light brown.
Odour	Almost odourless.
Odour limit	Comments: Not determined.
pH	Comments: Not relevant.
Melting point / melting range	Value: > 260 °C
Boiling point / boiling range	Value: 207 - 750 °C Comments: CAS: 64742-52-5 Value: 80 - 110 °C Comments: CAS: 64742-49-0
Flash point	Value: 98 - 344 °C Comments: CAS: 64742-52-5 Value: 0 °C Comments: CAS: 64742-49-0
Evaporation rate	Comments: Not determined.
Flammability	Extremely flammable aerosol.
Explosion limit	Comments: Not determined.
Vapour pressure	Comments: Not determined.
Vapour density	Comments: Not determined.
Relative density	Comments: Not determined.
Solubility	Medium: Water Comments: Insoluble.
Partition coefficient: n-octanol/ water	Comments: Not relevant for a mixture.
Auto-ignition temperature	Value: 200 °C Comments: CAS: 64742-49-0
Decomposition temperature	Comments: Not relevant.
Viscosity	Value: 50 cSt Temperature: 40 °C
Explosive properties	Not classified as an explosive.

Oxidising properties	Not classified as oxidizing.

9.2. Other information

Other physical and chemical properties

Comments	No further information is available.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	May be ignited by heat, sparks or flames.

10.2. Chemical stability

Stability	Stable under normal temperature conditions and recommended use.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Arise in contact with inappropriate conditions and incompatible materials (sections 10.4 and 10.5) Can form explosive gas-air mixtures.

10.4. Conditions to avoid

Conditions to avoid	Avoid heat, flames and other sources of ignition. Do not expose to temperatures above 50 °C. Protect from direct sunlight.

10.5. Incompatible materials

Materials to avoid	Strong oxidizing agents.

10.6. Hazardous decomposition products

Hazardous decomposition products	None under normal conditions. See also section 5.2.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Other information regarding health hazards

Acute toxicity, mixture estimate	Route of exposure: Oral Value: 21 929,82
Assessment of acute toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of skin corrosion / irritation, classification	Irritating to skin.
Assessment of eye damage or irritation, classification	Based on available data, the classification criteria are not met.
Assessment of respiratory sensitisation, classification	Based on available data, the classification criteria are not met.

Assessment of skin sensitisation, classification	Based on available data, the classification criteria are not met.
Skin contact	Prolonged and repeated skin contact will cause defatting and possible irritation.
Assessment of germ cell mutagenicity, classification	Based on available data, the classification criteria are not met.
Assessment of carcinogenicity, classification	Based on available data, the classification criteria are not met.
Assessment of reproductive toxicity, classification	Based on available data, the classification criteria are not met.
Assessment of specific target organ toxicity - single exposure, classification	Based on available data, the classification criteria are not met.
Assessment of specific target organ toxicity - repeated exposure, classification	Based on available data, the classification criteria are not met.
Assessment of aspiration hazard, classification	Based on available data, the classification criteria are not met. The chemical contains ingredient(s) classified as dangerous if swallowed, see section 3.

Symptoms of exposure

In case of ingestion	Unlikely because of the chemical condition. May cause discomfort if swallowed.
In case of skin contact	The chemical irritates the skin and can cause itching, burning and redness. Defats the skin.
In case of inhalation	High concentrations: Vapours may cause drowsiness and dizziness. Solvent vapors may be harmful and overexposure may cause headaches, nausea, vomiting, and intoxication.
In case of eye contact	May irritate and cause redness and pain.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity, fish	Toxicity type: Acute Value: > 13,4 mg/l Effect dose concentration: LL50 Test duration: 96 hour(s) Species: Oncorhynchus mykiss Method: OECD 203 Comments: Applies to CAS nr. 64742-49-0. Toxicity type: Acute Value: 4,5 mg/l Effect dose concentration: LC50 Exposure time: 96 hour(s) Species: Oncorhynchus mykiss Comments: CAS: 85940-28-9
Aquatic toxicity, algae	Toxicity type: Acute Value: 10 - 30 mg/l Effect dose concentration: EL50 Test duration: 72 hour(s)

	Species: Pseudokirchneriella subcapitata Method: OECD 201 Comments: Applies to CAS nr. 64742-49-0. Toxicity type: Acute Value: 2,1 mg/l Exposure time: 96 hour(s) Species: Scenedesmus subspicatus Comments: CAS: 85940-28-9
Aquatic toxicity, crustacean	Toxicity type: Acute Value: 3 mg/l Effect dose concentration: EL50 Test duration: 48 hour(s) Species: Daphnia magna Comments: Applies to CAS nr. 64742-49-0. Toxicity type: Acute Value: 5,4 mg/l Effect dose concentration: EC50 Exposure time: 48 hour(s) Species: Daphnia magna Comments: CAS: 85940-28-9 Toxicity type: Chronic Value: < 1 mg/l Effect dose concentration: NOEC Exposure time: 48 hour(s) Species: Daphnia magna Comments: CAS: 85940-28-9
Ecotoxicity	Harmful to aquatic life with long lasting effects.

12.2. Persistence and degradability

Persistence and degradability description/evaluation	The chemical contains inorganic compounds that are not biodegradable. CAS-no. 64742-52-5 Not readily biodegradable. CAS-no. 19370-86-6 Readily biodegradable. CAS-no. 64742-49-0 Readily biodegradable. CAS-no. 85940-28-9 Not readily biodegradable.
Biodegradability	Value: 98 % Test reference: OECD 301F Comments: Applies to CAS nr. 64742-49-0. Test period: 28 day(s)

12.3. Bioaccumulative potential

Bioaccumulation, comments	Information on bioaccumulation is not available for the chemical. CAS: 64742-52-5 Log Pow: 2-6. Not expected to bioaccumulate.

12.4. Mobility in soil

Mobility	Insoluble in water. Expected to have relatively low mobility in soil.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment	Not PBT / vPvB

12.6. Other adverse effects

Additional ecological information	Do not allow to enter into sewer, water system or soil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Appropriate methods of disposal for the chemical	Disposed of as hazardous waste by approved contractor. The waste code (EWC-Code) is intented as a guide. The code must be chosen by the user, if the use differs from the one mentioned below.
EWC waste code	EWC waste code: 130208 other engine, gear and lubricating oils Classified as hazardous waste: Yes
EWL packing	EWC waste code: 160504 gases in pressure containers (including halons) containing dangerous substances Classified as hazardous waste: Yes
NORSAS	7055 Aerosol cans.
Other information	Do not empty into drains.

SECTION 14: Transport information

Dangerous goods	Yes

14.1. UN number

ADR/RID/ADN	1950
IMDG	1950
ICAO/IATA	1950

14.2. UN proper shipping name

Proper shipping name English ADR/RID/ADN	AEROSOLS
ADR/RID/ADN	AEROSOLS
IMDG	AEROSOLS
ICAO/IATA	AEROSOLS, FLAMMABLE

14.3. Transport hazard class(es)

ADR/RID/ADN	2.1
Classificaton code ADR/RID/ADN	5F
IMDG	2.1
ICAO/IATA	2.1

14.4. Packing group

Comments	Not relevant.

14.5. Environmental hazards

IMDG Marine pollutant	No

14.6. Special precautions for user

Special safety precautions for user	Not specified by the manufacturer.

14.7. Maritime transport in bulk according to IMO instruments

Transport in bulk (yes/no)	No

Additional information

Hazard label ADR/RID/ADN	2.1
Hazard label IMDG	2.1
Hazard label ICAO/IATA	2.1

ADR/RID Other information

Tunnel restriction code	D
Transport category	2

IMDG Other information

EmS	F-D, S-U

SECTION 15: Regulatory information

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

References (laws/regulations)	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP-regulation) with later amendments. Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH Regulation), with later amendments. Norwegian regulation on waste, 01.06.2004 no. 930, with later amendments. The Carriage of Dangerous Goods and Use of Transportable Pressure Equipment Regulations 2009. Bekendtgørelse nr.844 - Aerosoler. Norwegian regulation on declaration: FOR-2015-05-19-541, 01.06.2015 with later amendments.
Declaration No.	633696

15.2. Chemical safety assessment

Chemical safety assessment performed	No

SECTION 16: Other information

Supplier's notes	The information contained in this SDS must be made available to all those who handle the product.
List of relevant H-phrases (Section 2 and 3)	H222 Extremely flammable aerosol. H225 Highly flammable liquid and vapour. H229 Pressurised container: May burst if heated. H302 Harmful if swallowed. H304 May be fatal if swallowed and enters airways. H315 Causes skin irritation. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.
Key literature references and sources for data	Suppliers Safety data sheet dated: 20.08.2020 og 15.06.2018 Recipe.
Abbreviations and acronyms used	ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road ATE: Acute Toxicity Estimate EWC: European Waste Code (a code from the EU's common classification system for waste) EL50: The effective concentration of substance (slightly soluble) that causes 50% of the maximum response. IATA: The International Air Transport Association IBC: Intermediate Bulk Container. ICAO: The International Civil Aviation Organisation IMDG: The International Maritime Dangerous Goods Code LL50: Lethal Loading rate. The effective concentration of substance that causes 50% of the maximum response for poorly water soluble substances. MARPOL 73/78 is the International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. ("MARPOL" is short for marine pollution and 73/78 short for the years 1973 and 1978.) OECD: Organisation for Economic Cooperation and Development. PBT: Persistent, Bioaccumulative and Toxic RID: The Regulations concerning the International Carriage of Dangerous Goods by Rail vPvB: very Persistent and very Bioaccumulative
Information added, deleted or revised	Sections being revised since previous version: 2,3,5,7,9,11,12,13,16
Checking quality of information	This SDS is quality controlled by Kiwa Teknologisk Institutt in Norway, certified according to the Quality Management System requirements specified in ISO 9001:2015.
Version	2
Prepared by	Kiwa Teknologisk Institutt /Irene S. Sortland.