# SAFETY DATA SHEET

# ORION 290

The safety data sheet is in accordance with Commission Regulation (EU) 2020/878 of 18 June 2020 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 | 18.11.2022 |

### 1.1. Product identifier

| | |
|---|---|
| Product name | ORION 290 |
| Article no. | BL290E |

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

| | |
|---|---|
| Use of the substance / mixture | Corrosion inhibitor. |

### 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<br>Description: Norwegian Poison Information Center |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

| | |
|---|---|
| Classification according to Regulation (EC) No 1272/2008 [CLP / GHS] | Flam. Liq. 3; H226 |
| Substance / mixture hazardous properties | Flammable liquid and vapour. |

### 2.2. Label elements

**Hazard pictograms (CLP)**

| | |
|---|---|
| Signal word | Warning |
| Hazard statements | H226 Flammable liquid and vapour. |
| Precautionary statements | P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.<br>P235 Keep cool.<br>P303+P361+P353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.<br>P370+P378 In case of fire: Use CO2 eller pulver to extinguish.<br>P403+P233 Store in a well-ventilated place. Keep container tightly closed.<br>P501 Dispose of contents / container to godkjent avfallsmottak |
| Supplemental label information | EUH 066 Repeated exposure may cause skin dryness or cracking. |

### 2.3. Other hazards

| | |
|---|---|
| PBT / vPvB | PBT/vPvB assessment has not been performed. |
| Physicochemical effects | Can form explosive gas-air mixture. |
| Other hazards | The substance is not listed on ECHA's Endocrine disruptor assessment list. |

## SECTION 3: Composition / information on ingredients

### 3.2. Mixtures

| Substance | Identification | Classification | Contents | Notes |
|---|---|---|---|---|
| Naphtha (petroleum) , hydrotreated heavy | CAS No.: 64742-48-9<br>EC No.: 265-150-3 | Flam. Liq. 3; H226<br>Asp. Tox. 1; H304<br>EUH 066 | > 30 % | |

| | |
|---|---|
| Remarks, substance | CAS-nr.:64742-48-9 contains < 0,1% Benzene. This indicates that the ingredient is neither carcinogenic nor mutagenic. |
| Substance comments | For substances without REACH registration number, no information has been provided by the subcontractor or manufacturer.<br>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. |
| Inhalation | Fresh air and rest. Get medical attention if any discomfort continues. |
| Skin contact | Remove contaminated clothing. Wash skin with soap and water. Get medical attention if any discomfort continues. |
| Eye contact | Remove contact lenses and open eyes wide apart. Promptly rinse eyes with plenty of water (tempered at 20-30°C) for at least 15 minutes. Contact physician if discomfort continues. |
| Ingestion | Rinse mouth thoroughly. Give a couple of tablespoons of cream or oil, or dairy ice-cream, if the victim is conscious. Do NOT induce vomiting. Get medical attention. |

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

| | |
|---|---|
| Acute symptoms and effects | May cause eye irritation. Symptoms may be stinging pain and redness in the eyes.<br>The chemical may irritate the stomach/intestines and can cause abdominal pain, nausea, vomiting and diarrhoea. |
| Delayed symptoms and effects | Prolonged and repeated skin contact will cause defatting and possible irritation. |

### 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 ($CO_2$), water mist, foam. |
| Improper extinguishing media | Do not use water jet. |

### 5.2. Special hazards arising from the substance or mixture

| | |
|---|---|
| Fire and explosion hazards | Flammable liquid and vapour. Vapours may form explosive mixtures with air. |
| Hazardous combustion products | May include, but is not limited to: Carbon dioxide ($CO_2$). Carbon monoxide (CO). Unspecified organic compounds. |

### 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 | Containers close to fire should be removed immediately or cooled with water. |

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

### 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 | Absorb in vermiculite, dry sand or earth, and place into containers. Collect in a suitable container and dispose as hazardous waste according to section 13. |

### 6.4. Reference to other sections

| | |
|---|---|
| Other instructions | 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 vapours 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. Take precautionary measures against static discharges. The vapours are heavier than air and will spread along the floor. Ground/bond container and receiving equipment. Use only non-sparking tools. Use explosion-proof electrical / ventilating / lighting / / equipment. |
| 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 a well-ventilated place. Keep container tightly closed. Protect from frost. Flammable liquid storage. |
| Conditions to avoid | Keep away from heat / sparks / open flames / hot surfaces. — No smoking. |

### Conditions for safe storage

| | |
|---|---|
| Advice on storage compatability | Keep away from: Oxidizing agents. Acids. Reducing agents. Alkalies. Food and feed. |

### 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 |
|---|---|---|---|
| White Spirit (aromatic contents ≤ 22%) | | Limit value (8 h) : 50 ppm<br>Limit value (8 h) : 275 mg/ | |

| | |
|---|---|
| | $m^3$ |
| Control parameters comments | References (laws/regulations): Norwegian regulation on exposure limits: FOR-2011-12-06-1358 Forskrift om tiltaks- og grenseverdier (sist endret gjennom FOR-2021-06-28-2248). |

## 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.<br>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: At risk of eye contact: Wear tight-fitting goggles or face shield.<br>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 materials | Nitrile. |
| Breakthrough time | Value: > 480 minute(s) |
| Thickness of glove material | Value: 0,35 mm |
| Hand protection equipment | Description: Use chemical resistant gloves.<br>The gloves abilities may vary among the different glove manufacturers.<br>Reference to relevant standard: EN ISO 374 (Protective gloves against chemicals and micro-organisms).<br>EN 420 (Protective gloves - General requirements and test methods). |
| 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 skin contact. |
| Additional skin protection measures | Emergency shower should be available at the workplace. |

### Respiratory protection

| | |
|---|---|
| Recommended respiratory protection | Description: In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment with combination filter (type ABEK).<br>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 | Liquid. |
| Colour | Not specified by the manufacturer. |
| Odour | Characteristic. |
| pH | Comments: Not relevant. Insoluble in water. |
| Melting point / melting range | Comments: Not specified by the manufacturer. |
| Boiling point / boiling range | Value: 155 - 190 °C |
| Flash point | Value: 45 °C |
| Flammability | Brannfarlig væske og damp. |
| Explosion limit | Value: 0,60 - 7,00 vol% |
| Vapour pressure | Value: 13 300 Pa<br>Temperature: 20 °C |
| Vapour density | Value: > 1<br>Reference gas: Air = 1 |
| Particle characteristics | Comments: Not relevant. |
| Density | Value: 900 g/l<br>Temperature: 20 °C |
| Solubility | Medium: Water<br>Comments: Insoluble. |
| Partition coefficient: n-octanol/ water | Comments: Not relevant for a mixture. |
| Auto-ignition temperature | Comments: Not specified by the manufacturer. |
| Decomposition temperature | Comments: Not determined. |
| Viscosity | Value: > 20,5 mm2/s<br>Temperature: 40 °C<br>Type: Kinematic |
| Explosive properties | The chemical is not explosive, but may form explosive mixtures with air. |

### 9.2. Other information

### Physical hazards

| | |
|---|---|
| Content of VOC | Comments: 50,00 %<br>450 g/l |

### 9.2.2. Other safety characteristics

| | |
|---|---|
| Evaporation rate | 0,13 |

| | |
|---|---|
| | (BuAc = 1) |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

| | |
|---|---|
| Reactivity | Under normal condtions and use there are not expected any reactivity hazards for this chemical. |

### 10.2. Chemical stability

| | |
|---|---|
| Stability | Stable under normal temperature conditions and recommended use. |

### 10.3. Possibility of hazardous reactions

| | |
|---|---|
| Possibility of hazardous reactions | May arise in contact with incompatible materials (see section 10.5) and/or under inappropriate conditions (see section 10.4). |

### 10.4. Conditions to avoid

| | |
|---|---|
| Conditions to avoid | Heat, sparks or open flame. Extremes of temperatures. Avoid freezing. Do not expose to temperatures above 50 °C. |

### 10.5. Incompatible materials

| | |
|---|---|
| Materials to avoid | Oxidizing agents. Acids. Alkalies. Reducing 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

| | |
|---|---|
| Assessment of acute toxicity, classification | Based on available data, the classification criteria are not met. |
| Assessment of skin corrosion / irritation, classification | Based on available data, the classification criteria are not met. |
| 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. |
| 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 | Not classified for aspiration hazard because the viscosity criteria is not fulfilled. |

### Symptoms of exposure

| | |
|---|---|
| In case of ingestion | The chemical may irritate the stomach/intestines and can cause abdominal pain, nausea, vomiting and diarrhoea. |
| In case of skin contact | Prolonged and repeated skin contact will cause defatting and possible irritation. |
| In case of inhalation | Gas or vapour in high concentrations may irritate respiratory system. |
| In case of eye contact | May irritate and cause redness and pain. |

### 11.2 Other information

| | |
|---|---|
| Endocrine disruption | The substance is not listed on ECHA's Endocrine disruptor assessment list. |

## SECTION 12: Ecological information

### 12.1. Toxicity

| | |
|---|---|
| Ecotoxicity | The chemical is not classified as harmful to the environment. |

### 12.2. Persistence and degradability

| | |
|---|---|
| Persistence and degradability description/evaluation | There are no data available on the chemical itself. |

### 12.3. Bioaccumulative potential

| | |
|---|---|
| Bioaccumulation, comments | Information on bioaccumulation is not available for the chemical. |

### 12.4. Mobility in soil

| | |
|---|---|
| Mobility | Floats on water. Insoluble in water. |

### 12.5. Results of PBT and vPvB assessment

| | |
|---|---|
| Results of PBT and vPvB assessment | PBT/vPvB assessment has not been performed. |

### 12.6. Endocrine disrupting properties

| | |
|---|---|
| Endocrine disrupting properties | The substance is not listed on ECHA's Endocrine disruptor assessment list. |

### 12.7. Other adverse effects

| | |
|---|---|
| Additional ecological information | Forms an oil film on water surfaces that may harm organisms in the water and disrupt oxygen transport in the boundary layer between air and water. |

## 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: 140603 other solvents and solvent mixtures<br>Classified as hazardous waste: Yes |
| NORSAS | 7042 Organic solvents, non -halogenated. |
| Other information | Do not empty into drains. |

## SECTION 14: Transport information

| | |
|---|---|
| Dangerous goods | Yes |

### 14.1. UN number

| | |
|---|---|
| ADR/RID/ADN | 1993 |
| IMDG | 1993 |
| ICAO/IATA | 1993 |

### 14.2. UN proper shipping name

| | |
|---|---|
| Proper shipping name English ADR/RID/ADN | FLAMMABLE LIQUID, N.O.S. |
| Technical name/Danger releasing substance English ADR/RID/ADN | (Naphta heavy (low boiling point hydrogen treated)) |
| ADR/RID/ADN | FLAMMABLE LIQUID, N.O.S. |
| Technical name/danger releasing substance ADR/RID/ADN | (Naphta heavy (low boiling point hydrogen treated)) |
| IMDG | FLAMMABLE LIQUID, N.O.S. |
| Technical name/danger releasing substance IMDG | (Naphta heavy (low boiling point hydrogen treated)) |
| ICAO/IATA | FLAMMABLE LIQUID, N.O.S. |
| Technical name/danger releasing substance ICAO/IATA | (Naphta heavy (low boiling point hydrogen treated)) |

### 14.3. Transport hazard class(es)

| | |
|---|---|
| ADR/RID/ADN | 3 |
| Classificaton code ADR/RID/ADN | F1 |

### 14.4. Packing group

| | |
|---|---|
| ADR/RID/ADN | III |

| | |
|---|---|
| IMDG | III |
| ICAO/IATA | III |

### 14.5. Environmental hazards

| | |
|---|---|
| IMDG Marine pollutant | No |

### 14.6. Special precautions for user

| | |
|---|---|
| Special safety precautions for user | Smoking, use of fire and open flame prohibited. |

### 14.7. Maritime transport in bulk according to IMO instruments

| | |
|---|---|
| Transport in bulk (yes/no) | No |
| Product name | FLAMMABLE LIQUID, N.O.S. |
| Pollution category | Not relevant. |

### Additional information

| | |
|---|---|
| Hazard label ADR/RID/ADN | 3 |
| Hazard label IMDG | 3 |
| Hazard label ICAO/IATA | 3 |

### ADR/RID Other information

| | |
|---|---|
| Tunnel restriction code | D/E |
| Transport category | 3 |
| Hazard No. | 30 |

### IMDG Other information

| | |
|---|---|
| EmS | F-E, S-E |

## SECTION 15: Regulatory information

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

| | |
|---|---|
| References (laws/regulations) | Regulation (EC) No 1907/2006 on the registration, evaluation, authorization and restriction of chemicals (REACH Regulation), with later amendments.<br>Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP-regulation) with later amendments.<br>Norwegian regulation on waste, 01.06.2004 no. 930, with later amendments.<br>Norwegian regulation on dangerous goods: FOR 2009-04-01 nr 384: Forskrift om landtransport av farlig gods med senere endringer, Direktoratet for samfunnssikkerhet og beredskap. |

### 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) | EUH 066 Repeated exposure may cause skin dryness or cracking.<br>H226 Flammable liquid and vapour.<br>H304 May be fatal if swallowed and enters airways. |
| CLP classification, comments | Calculation method. |
| Key literature references and sources for data | Suppliers Safety data sheet dated: 18.01.2016 |
| Abbreviations and acronyms used | ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways<br>ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road<br>EWC: European Waste Code (a code from the EU's common classification system for waste)<br>RID: The Regulations concerning the International Carriage of Dangerous Goods by Rail<br>IATA: The International Air Transport Association<br>ICAO: The International Civil Aviation Organisation<br>IMDG: The International Maritime Dangerous Goods Code<br>IMO: International Maritime Organization<br>PBT: Persistent, Bioaccumulative and Toxic<br>vPvB: very Persistent and very Bioaccumulative<br>ECHA: European CHemicals Agency |
| Information added, deleted or revised | Sections being revised since previous version: 1, 2, 3, 4, 7, 8, 9, 10, 11, 12, 14, 15, 16 |
| Checking quality of information | This SDS is quality controlled by Kiwa Kompetanse AS in Norway, certified according to the Quality Management System requirements specified in ISO 9001:2015. |
| Version | 1 |
| Prepared by | Kiwa Kompetanse AS, Norway, by Tore-Andre Øverby |