| Safe | ety Data S | Sheet in A | ccordar | ce with regula | tion 453/20 | 010 | Page 1 of | | |
|----------------|--|---|--------------------------------|--|-------------------------------------|----------------|---|--|--|
| Date "*" al | of issue : 11.0 terations as co | 08.2011 Replace | es Data Shee vious version; | t of : n.ap. = not applicable; | n.av. = not ava | ailable | | | |
| SECT | TION 1: Identification of the substance/mixture and of the company/undertaking | | | | | | | | |
| 1.1 | Product id Trade Nam Article No. | ie : | | LiO Oil 85W-90 GL 5 (S n.av. | SAE 85-80) | | | | |
| | Preparatio Registratio | on No. : | l | n.av. n.av. | | | | | |
| .2 | Lubricant a | ssistants | | ance or mixture: | | | | | |
| 1.3 1.3.1 | Details of the supplier of the safety data sheet Address of the Company / Supplier : ON's Industry Germany Ltd. & Co. KG, Flughafenstraße 52a, D- 22335 Hamburg Telefon : +49 – 40-53299172, Telefax : +49 – 40-53299100, E-Mail : info@ons-industrie.com | | | | | | | | |
| .3.2 | Chemie & \ | Verantwortlich für das Datenblatt : Chemie & Vorschrift, Kannheideweg 35, D - 53123 Bonn-Duisdorf, E-Mail : info@chemie-vorschrift.de | | | | | | | |
| 1.4 | | a mer Jefon des Herste 9 – 40-53299172 | | | gsstelle für Vergi ⊦49-761-19240 | ftungsersch | neinungen | | |
| | | ards identifica | | | | | | | |
| 2.1 | | ion of the sub | stance or mi | xture | | | | | |
| 2.2 | Irritant Label elem Classificatio | | EEC - Regul | ations : Yes. | | | | | |
| | Applicable | Classification according to EEC - Regulations : Yes. Applicable Exemptions : No. Hazard Identification : Irritant Hazard Symbol(s) : | | | | | | | |
| | | Component(s) : contains: Amines, C12-14-alkyl, reaction products with hexanol, phosphorus oxide, phosphorus sulfide and propylene oxide | | | | | | | |
| | R 43: May 6 R 52/53: Ha in the aqua S - Phrase S 2 - Keep S 62 - If sw seek medic S 24/25 - A S 37 - Wea | R - Phrases : R 43: May cause sensitization by skin contact. R 52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. S - Phrases : S 2 - Keep out of the reach of children. S 62 - If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. S 24/25 - Avoid contact with skin and eyes. S 37 - Wear suitable gloves. S 61 - Avoid release to the environment. Refer to special instructions/safety data sheets. | | | | | | | |
| | Additional Markings : Contains Alkylamine longchained. May produce an allergic reaction. | | | | | | | | |
| 2.3 | The above mentioned labelling is valid for distribution to private consumer. Other hazards Inhalation of vapours in high concentration may cause irritation of respiratory system. Solvents may degrease the skin. | | | | | | | | |
| SECT | | position/info | | ingredients | | | | | |
| 3.1 | Substances Chemical Characterisation : Petroleum products | | | | | | | | |
| 3.2 | - | Ingredients : Index - No. n.av. | EEC - No. n.av. | Material Alkylamine longchained | m% - range 0,1 - 0,25% | Symbol T, N | R - phrases R 22-23/24-34-43- | | |
| | n.v. 91745-46-9 | n.av. n.av. | n.av. 294-716-2 | Alkenylamine longchained Amines, C12-14-alkyl, reaction products with hexanol, phosphorus oxide, phosphorus sulfide and propylene oxide | 0,1 - 1% 1 - 2,5% | C, N Xn, N | 48/20-50/53 R 22-35-50 R 22-41-43-51/53 | | |

Safety Data Sheet in Accordance with regulation 453/2010

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| | , | | | | |
|---|--|--|--|--|--|
| Trade Name : LiO Oil 85W-90 GL 5 (SAE 85-80) | | | | | |
| Company / Supplier : ON's Industry Germany Ltd. & Co. KG, Flughafenstraße 52a, D- 22335 Hamburg Telephone : +49 – 40-53299172, Date of issue : 11.08.2011 Replaces Data Sheet of : | | | | | |
| Teleph | ione : +49 - 40-55299172, Date of issue : 11.06.2011 Replaces Data Sheet of : | | | | |
| SECTI | ON 4: First aid measures | | | | |
| 4.1 | Description of first aid measures | | | | |
| 4.1.1 | Inhalation : | | | | |
| | Move to fresh air in case of accidental inhalation of vapours or decomposition products. | | | | |
| 4 4 9 | If symptoms persist, call a physician. | | | | |
| 4.1.2 | Skin Contact : Wash off with warm water and soap. In the case of skin irritation or allergic reactions see a physician. | | | | |
| 4.1.3 | Eye Contact : | | | | |
| 1.1.0 | In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the | | | | |
| | eyelids, for at least 15 minutes. If symptoms persist, call a physician. | | | | |
| 4.1.4 | Ingestion : | | | | |
| | Do not induce vomiting. Rinse mouth. Consult a physician. | | | | |
| 4.2 | Most important symptoms and effects, both acute and delayed | | | | |
| | Risk of product entering the lungs on vomiting after ingestion. Aspiration may cause pulmonary oedema and pneumonitis. | | | | |
| 4.3 | Indication of any immediate medical attention and special treatment needed | | | | |
| | Treat symptomatically. | | | | |
| SECTI | ON 5: Firefighting measures | | | | |
| 5.1 | Extinguishing media | | | | |
| 5.1.1 | Suitable Extinguishing Media : | | | | |
| | Use dry chemical, CO ₂ , water spray or "alcohol" foam. | | | | |
| 5.1.2 | Extinguishing Media to Avoid : | | | | |
| E 0 | high volume water jet | | | | |
| 5.2 | Special hazards arising from the substance or mixture In the event of fire the following can be released: | | | | |
| | Carbon oxides, nitrogen oxides (NO_x), sulphur oxides, oxides of phosphorus. | | | | |
| 5.3 | Advice for firefighters | | | | |
| 5.3.1 | Special Protective Equipment : | | | | |
| | Wear positive pressure self-contained breathing apparatus. Wear full protective clothing. | | | | |
| 5.3.2 | Additional Information : | | | | |
| | In the event of fire, cool tanks with water spray. Fire residues and contaminated fire extinguishing | | | | |
| | water must be disposed of in accordance with local regulations. | | | | |
| | ON 6: Accidental release measures | | | | |
| 6.1 | Personal precautions, protective equipment and emergency procedures Contaminated surfaces will be extremely slippery. | | | | |
| 6.2 | Environmental precautions | | | | |
| 0.2 | Do not flush into surface water or sanitary sewer system. Do not allow material to contaminate | | | | |
| | ground water system. Local authorities should be advised if significant spillages cannot be contained. | | | | |
| 6.3 | Methods and material for containment and cleaning up | | | | |
| | Prevent spreading over a wide area (e.g. by containment or oil barriers). | | | | |
| 0.4 | Soak up with oil absorbent material. Shovel into suitable container for disposal. | | | | |
| 6.4 | Reference to other sections None. | | | | |
| SECT | | | | | |
| L | ON 7: Handling and storage | | | | |
| 7.1 7.1.1 | Precautions for safe handling Precautions for Safe Handling : | | | | |
| 1.1.1 | Ensure adequate ventilation. Do not breathe spray mist. | | | | |
| 7.1.2 | Precautions in Case of Fire and Explosion : | | | | |
| | Normal measures for preventive fire protection. Do not smoke. | | | | |
| 7.2 | Conditions for safe storage, including any incompatibilities | | | | |
| 7.2.1 | Storage Instructions : | | | | |
| | Keep containers tightly closed in a dry, cool and well-ventilated place. Store in original container. | | | | |
| 7 2 2 | Keep away from heat. Keep away from direct sunlight. Keep at temperatures below 65°C. | | | | |
| 7.2.2 | Store away from : | | | | |
| 7.2.3 | Do not store together with oxidizing agents. Further Information on Storage Conditions : | | | | |
| | - | | | | |
| | Avoid subsoil penetration. | | | | |
| 7.3 | Avoid subsoil penetration. Specific end use(s) | | | | |
| 7.3 | Avoid subsoil penetration. Specific end use(s) n.av. | | | | |

Safety Data Sheet in Accordance with regulation 453/2010

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| | ION 8: Exposure con | trols/personal p | rotection | | |
|---|--|---|---|---|--|
| 1 | Control parameters Material | | Limit Value | | |
| | matorial | | | | |
| .2 | Exposure controls | | | | |
| 8.2.1 Appropriate engineering controls | | | | | |
| | Avoid contact with skin Remove and wash con | | before re-use | | |
| | When using, do not ea | it, drink or smoke. | | | |
| | Wash hands before bro | | | | |
| | Do not port contaminated cleaning rags in pockets. Contaminated equipment (brushes, rags) must be cleaned immediately with water. | | | | |
| 3.2.2 | Individual protection | measures | | | |
| 3.2.2a | Respiratory | Breathing appar | atus needed only when aei | rosol or mist is formed. | |
| 3.2.2b | Protection : | • | filter A2, A2P2, ABEK. kin cream before handling | the product | |
|).2.20 | Hand Protection : | | s (nitrile rubber, neoprene) | | |
| | | As the product is | s a preparation of several s | substances, the durability of the glove | |
| | | | | and has to be tested before use. other things from the material, the | |
| | | | | ore has to be measured for each case | |
| 3.2.2c | Eye Protection : | Safety glasses | | | |
| | | n.av. | | | |
| | Skin Protection : | | | | |
| | Environmental expos | sure controls : | ind water system. | | |
| | | o contaminate grou | | | |
| 3.2.3 | Environmental expose Do not allow material t Do not flush into surface | sure controls : o contaminate grou ce water or sanitary | v sewer system. | | |
| 3.2.3 SECT 9.1 | Environmental exposed Do not allow material t | o contaminate grou ce water or sanitary chemical propert | v sewer system. t ies | | |
| 3.2.3 SECT 9.1 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and co | o contaminate grou ce water or sanitary chemical propert physical and chemi | v sewer system. t ies | Odour : characteristic | |
| 3.2.3 SECT 9.1 9.1.1 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and of Information on basic | o contaminate grou ce water or sanitary chemical propert physical and chemi | v sewer system. ties mical properties | | |
| 3.2.3 SECT 9.1 9.1.1 9.1.2 9.1.3 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and co Information on basic Form : viscous liquic pH-value, undiluted : Boiling point / Boiling - | sure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou | v sewer system. ties mical properties ur : tan n.ap., pH-value, 1% aq n.av., Melting point / Me | | |
| 3.2.3 SECT 0.1 0.1.1 0.1.2 0.1.3 0.1.4 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and co Information on basic Form : viscous liquic pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : | sure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colour range (°C) : | v sewer system. ties mical properties ur : tan n.ap., pH-value, 1% aq n.av., Melting point / Ma > 110, | ueous solution : n.ap. | |
| 3.2.3 SECT 0.1 0.1.2 0.1.2 0.1.3 0.1.4 0.1.5 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and co Information on basic Form : viscous liquic pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 | contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : | v sewer system. ties mical properties ur : tan n.ap., pH-value, 1% aq n.av., Melting point / Me | ueous solution : n.ap. | |
| 3.2.3 SECT 0.1 0.1.1 0.1.2 0.1.3 0.1.4 0.1.5 0.1.6 0.1.7 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and co Information on basic Form : viscous liquic pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC | sure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : D/A13) : C) : | v sewer system. ties mical properties ur : tan n.ap., pH-value, 1% aq n.av., Melting point / Me > 110, n.av. n.av. None. | ueous solution : n.ap. | |
| SECT 3.2.3 3.2.3 3.1 3.1.1 3.1.2 3.1.2 3.1.3 3.1.4 3.1.5 3.1.6 3.1.7 3.1.6 3.1.7 3.1.8 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and of Information on basic Form : viscous liquid pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : | sure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : D/A13) : C) : | v sewer system. ties mical properties ur : tan n.ap., pH-value, 1% aq n.av., Melting point / Me > 110, n.av. n.av. None. None. None. | ueous solution : n.ap. | |
| 3.2.3 SECT 0.1 0.1.1 0.1.2 0.1.3 0.1.4 0.1.5 0.1.6 0.1.7 0.1.8 0.1.9 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and of Information on basic Form : viscous liquid pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : | sure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : | v sewer system. ties mical properties ur : tan n.ap., pH-value, 1% aq n.av., Melting point / Me > 110, n.av. n.av. None. None. None. None. | ueous solution : n.ap. | |
| 3.2.3 SECT 9.1 9.1.2 9.1.3 9.1.4 9.1.5 9.1.6 9.1.7 9.1.8 9.1.9 9.1.10 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and of Information on basic Form : viscous liquid pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : Explosion limits (Vol.% Vapour pressure : | sure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : | v sewer system. ties mical properties ur : tan n.ap., pH-value, 1% aq n.av., Melting point / Me > 110, n.av. n.av. None. None. None. None. None. n.av., upper : n.av. n.av. | ueous solution : n.ap. | |
| 3.2.3 SECT 9.1 9.1.1 9.1.2 9.1.3 9.1.4 9.1.5 9.1.6 9.1.7 9.1.8 9.1.9 9.1.10 9.1.10 9.1.11 9.1.12 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and of Information on basice Form : viscous liquide pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : Explosion limits (Vol.% Vapour pressure : Density (g/ml) : | sure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : | v sewer system. ties mical properties ur : tan n.ap., pH-value, 1% aq n.av., Melting point / Me > 110, n.av. n.av. None. None. None. None. None. n.av., upper : n.av. n.av. 0,9 (15°C) | ueous solution : n.ap. elting range (°C) : Pourpoint ~ -20 | |
| 3.2.3 SECT 9.1 9.1.1 9.1.2 9.1.3 9.1.4 9.1.5 9.1.6 9.1.7 9.1.8 9.1.7 9.1.8 9.1.7 9.1.10 9.1.10 9.1.11 9.1.12 9.1.13 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and of Information on basice Form : viscous liquide pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : Explosion hazard : Explosion limits (Vol.% Vapour pressure : Density (g/ml) : Solubility (in Water) : | cure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : o) lower : | v sewer system. ties mical properties Ir : tan n.av., Melting point / Me > 110, n.av. None. None. None. None. None. None. n.av., upper : n.av. n.av. 0,9 (15°C) practically insoluble | ueous solution : n.ap. | |
| 3.2.3 SECT 9.1 9.1.1 9.1.2 9.1.3 9.1.4 9.1.5 9.1.6 9.1.7 9.1.8 9.1.7 9.1.8 9.1.10 9.1.10 9.1.11 9.1.12 9.1.13 9.1.14 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and of Information on basic Form : viscous liquid pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : Explosion hazard : Explosion limits (Vol.% Vapour pressure : Density (g/ml) : Solubility (in Water) : Partition coefficient, n-0 | cure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : o) lower : | v sewer system. ties mical properties Ir : tan n.av., Melting point / Me > 110, n.av. None. None. None. None. None. None. None. None. None. None. None. None. None. None. None. None. None. None. n.av., upper : n.av. n.av. 0,9 (15°C) practically insoluble n.av. | ueous solution : n.ap. elting range (°C) : Pourpoint ~ -20 | |
| 3.2.3 SECT 0.1 0.1.1 0.1.2 0.1.3 0.1.4 0.1.5 0.1.6 0.1.7 0.1.8 0.1.7 0.1.8 0.1.7 0.1.10 0.1.11 0.1.12 0.1.11 0.1.12 0.1.13 0.1.14 0.1.15 0.1.14 0.1.15 0.1.17 0.1.17 0.1.15 0.1.16 0.1.17 0.1.17 0.1.17 0.1.18 0.1.11 0.1.17 0.1.17 0.1.17 0.1.17 0.1.17 0.1.18 0.1.11 0.1.17 0.1.15 0.1.17 0.1.18 0.1.11 0.1.17 0.1.11 0.1.17 0.1.11 0.1.15 0.1.17 0.1.11 0.1.11 0.1.11 0.1.11 0.1.12 0.1.15 0.1.15 0.1.15 0.1.15 0.1.10 0.1.11 0.1.11 0.1.11 0.1.12 0.1.11 0.1.12 0.1.11 0.1.12 0.1.13 0.1.13 0.1.14 0.1.11 0.1.13 0.1.14 0.1.15 0.1.15 0.1.15 0.1.15 0.1.15 0.1.15 0.1.15 0.1.11 0.1.11 0.1.12 0.1.14 0.1.14 0.1.15 0.1.14 0.1.15 0.1.14 0.1.14 0.1.14 0.1.14 0.1.14 0.1.15 0.1.14 0.1.14 0.1.15 0.1.14 0.1.15 0.1.14 0.1.15 0.1.14 0.1.15 0.1.14 0.1.15 0.1.1 | Environmental expose Do not allow material to Do not flush into surface ION 9: Physical and of Information on basic Form : viscous liquid pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : Explosion hazard : Explosion limits (Vol.% Vapour pressure : Density (g/ml) : Solubility (in Water) : Partition coefficient, n-0 Viscosity : Solvent separation test | cure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : Octanol/Water : | v sewer system. ties mical properties Ir : tan n.av., Melting point / Me > 110, n.av. None. None. None. None. None. None. n.av., upper : n.av. n.av. 0,9 (15°C) practically insoluble | ueous solution : n.ap. elting range (°C) : Pourpoint ~ -20 | |
| 3.2.3 SECT 0.1 0.1.1 0.1.2 0.1.3 0.1.4 0.1.5 0.1.6 0.1.7 0.1.8 0.1.7 0.1.10 0.1.11 0.1.12 0.1.11 0.1.12 0.1.13 0.1.14 0.1.12 0.1.11 0.1.12 0.1.13 0.1.14 0.1.15 0.1.10 0.1.17 0.1.12 0.1.3 0.1.4 0.1.5 0.1.6 0.1.7 0.1.10 0.1.7 0.1.13 0.1.4 0.1.15 0.1.16 0.1.17 0.1.10 0.1.17 0.1.10 0.1.17 0.1.10 0.1.17 0.1.10 0.1.17 0.1.10 0.1.17 0.1.10 0.1.17 0.1.10 0.1.17 0.1.10 0.1.17 0.1.10 0.1.17 0.1.10 0.1.17 0.1.10 0.1.11 0.1.17 0.1.10 0.1.11 0.1.17 0.1.11 0.1.17 0.1.10 0.1.11 0.1.11 0.1.11 0.1.17 0.1.10 0.1.11 0.1.11 0.1.11 0.1.11 0.1.11 0.1.12 0.1.11 0.1.11 0.1.11 0.1.12 0.1.11 0.1.11 0.1.12 0.1.13 0.1.11 0.1.12 0.1.13 0.1.11 0.1.12 0.1.13 0.1.14 0.1.12 0.1.13 0.1.14 0.1.12 0.1.13 0.1.14 0.1.12 0.1.14 0.1.14 0.1.15 0.1.14 0.1.14 0.1.15 0.1.14 0.1.14 0.1.15 0.1.16 0.1.17 0.1.14 0.1.15 0.1.16 0.1.17 0.1.14 0.1.15 0.1.16 0.1.17 0.1.17 0.1.16 0.1.17 0. | Environmental expose Do not allow material to Do not flush into surface Information on basice Form : viscous liquide pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : Explosion himits (Vol.% Vapour pressure : Density (g/ml) : Solubility (in Water) : Partition coefficient, n-0 Viscosity : Solvent separation test Solvent content (m %) | cure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : Octanol/Water : | v sewer system. ties mical properties Ir : tan n.av., Melting point / Me > 110, n.av. None. None. None. None. None. None. None. None. None. None. None. None. None. None. None. None. n.av. n.av. n.av. n.av. n.av. n.av. n.av. None. None. None. n.av. n.av. n.av. n.av. n.av. n.av. n.av. n.av. None. None. n.av. | ueous solution : n.ap. elting range (°C) : Pourpoint ~ -20 | |
| 3.2.3 SECT 9.1 9.1.1 9.1.2 9.1.3 9.1.4 9.1.5 9.1.6 9.1.7 9.1.8 9.1.7 9.1.10 9.1.10 9.1.11 9.1.12 9.1.10 9.1.11 9.1.12 9.1.13 9.1.14 9.1.15 9.1.10 9.1.11 9.1.17 9.1 | Environmental expose Do not allow material to Do not flush into surface Information on basice Form : viscous liquide pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : Explosion himits (Vol.% Vapour pressure : Density (g/ml) : Solubility (in Water) : Partition coefficient, n-0 Viscosity : Solvent separation test Solvent content (m %) Other information | sure controls : o contaminate grou ce water or sanitary chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : Octanol/Water : : | ties mical properties mical | ueous solution : n.ap. elting range (°C) : Pourpoint ~ -20 | |
| 3.2.3 SECT 9.1 9.1.1 9.1.2 9.1.3 9.1.4 9.1.5 9.1.6 9.1.7 9.1.8 9.1.7 9.1.10 9.1.10 9.1.10 9.1.11 9.1.12 9.1.13 9.1.14 9.1.12 9.1.13 9.1.14 9.1.12 9.1.11 9.1.17 9.1.17 9.1.17 9.1.10 9.1.17 9.1.10 9.1.17 9.1.10 9.1.17 9.1.10 9.1.17 9.1.10 9.1 | Environmental expose Do not allow material to Do not flush into surface Information on basice Form : viscous liquide pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : Explosion hazard : Explosion limits (Vol.% Vapour pressure : Density (g/ml) : Solubility (in Water) : Partition coefficient, n-0 Viscosity : Solvent separation test Solvent content (m %) Other information Thermal decomposition | sure controls : o contaminate grouper chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : o) lower : Octanol/Water : : | v sewer system. ties mical properties Ir : tan n.ap., pH-value, 1% aq n.av., Melting point / Me > 110, n.av. None. None. None. None. None. None. None. None. None. None. None. None. n.av., upper : n.av. n.av. 0,9 (15°C) practically insoluble n.av. n.av. n.av. | ueous solution : n.ap. elting range (°C) : Pourpoint ~ -20 | |
| 3.2.2d 3.2.3 SECT 9.1 9.1.1 9.1.2 9.1.3 9.1.4 9.1.5 9.1.6 9.1.7 9.1.7 9.1.7 9.1.7 9.1.10 9.1.10 9.1.10 9.1.112 9.1.112 9.1.112 9.1.113 9.1.14 9.1.15 9.1.10 9.1.11 9.1.12 9.1.11 9.1.12 9.1.1 9.1.2 9.1.3 9.1.4 9.1.1 9.1.1 9.1.1 9.1.2 9.1.3 9.1.4 9.1.1 9.1.1 9.1.1 9.1.2 9.1.3 9.1.4 9.1.10 9.1.10 9.1.11 9.1.12 9.1.10 9.1.10 9.1.10 9.1.10 9.1.11 9.1.12 9.1.10 9.1.10 9.1.10 9.1.10 9.1.10 9.1.12 9.1.12 9.1.10 9.1.10 9.1.10 9.1.12 9.1.12 9.1.12 9.1.12 9.1.12 9.1.12 9.1.12 9.2.12 9.2.1 9.2.12 9.2.1 | Environmental expose Do not allow material to Do not flush into surface Information on basice Form : viscous liquide pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : Explosion himits (Vol.% Vapour pressure : Density (g/ml) : Solubility (in Water) : Partition coefficient, n-0 Viscosity : Solvent separation test Solvent content (m %) Other information | sure controls : o contaminate grouper chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : o) lower : Octanol/Water : : | ties mical properties mical | ueous solution : n.ap. elting range (°C) : Pourpoint ~ -20 | |
| 3.2.3 SECT 9.1 9.1.1 9.1.2 9.1.3 9.1.4 9.1.5 9.1.6 9.1.7 9.1.8 9.1.7 9.1.10 9.1.10 9.1.11 9.1.12 9.1.10 9.1.11 9.1.12 9.1.13 9.1.14 9.1.12 9.1.11 9.1.2 9.1.3 9.1.4 9.1.5 9.1.6 9.1.7 9.1.1 9.1.2 9.1.3 9.1.4 9.1.5 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.2 9.1.1 9.1.1 9.1.1 9.1.1 9.1.2 9.1.12 9.1.13 9.1.14 9.1.15 9.1.16 9.1.17 9.2.1 9.2.1 9.2.2 | Environmental expose Do not allow material to Do not flush into surface Information on basice Form : viscous liquide pH-value, undiluted : Boiling point / Boiling - Flash point (°C, c.c.) : Flammability (EEC A10 Ignition temperature (°C Autoflammability (EEC A10 Ignition temperature (°C Autoflammability (EEC A10 Ignition temperature (°C Autoflammability (EEC Oxidising properties : Explosion hazard : Explosion hazard : Explosion limits (Vol.% Vapour pressure : Density (g/ml) : Solubility (in Water) : Partition coefficient, n-0 Viscosity : Solvent separation test Solvent content (m %) Other information Thermal decomposition Vapour density (Air = 1 | sure controls : o contaminate grouper chemical propert physical and cher d Colou range (°C) : D/A13) : C) : A16) : o) lower : Octanol/Water : : | ties mical properties mical | ueous solution : n.ap. elting range (°C) : Pourpoint ~ -20 | |

Safety Data Sheet in Accordance with regulation 453/2010

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| SECT | ION 10: Stability and reactivity | | | |
|--------------|---|---|--|--|
| 0.1 | Reactivity | | | |
| 0.2 | None. Chemical stability | | | |
| .2 | Stable under normal conditions. | | | |
| 0.3 | Possibility of hazardous reactions | | | |
| 0.4 | No dangerous reaction known under Conditions to avoid | conditions of normal use. | | |
| 5.4 | Protect from frost, heat and sunlight. | | | |
| 0.5 | Incompatible materials | | | |
| 0.6 | Strong oxidizing agents. Hazardous decomposition product | e | | |
| 0.0 | No decomposition if stored and applied as directed. | | | |
| | To avoid thermal decomposition, do r | not overheat (65°C). | | |
| ECT | ION 11: Toxicological informatior | 1 | | |
| 1.1 | Information on toxicological effect | | | |
| 1.1.1 | Acute Health Effects : | D 01/ | | |
| | Inhalation, LC ₅₀ rat, (mg/l/4h) : Ingestion, LD ₅₀ rat, (mg/kg) : | n.av. n.av. | | |
| | Skin - contact, LD ₅₀ rat, (mg/kg) : | n.av. | | |
| | Irritation (to skin / eye) : Sensitisation : | Slight May cause consitization of succentible persons by skin contact | | |
| 1.1.2 | Subacute / Chronic Toxicity : | May cause sensitization of susceptible persons by skin contact. | | |
| 1.1.2 | Carcinogenicity : | n.av. | | |
| | Mutagenicity : | n.av. | | |
| | Teratogenicity : Narcotic Effects : | n.av. None. | | |
| 1.1.3 | Practical Experience | | | |
| 1.1.3. | 1 Observations relevant for classification | on : | | |
| 1133 | None. 2 Further Observations : | | | |
| 1.1.0.2 | | / cause skin irritation and dermatitis, due to degreasing | | |
| | properties of the product. | | | |
| 1.1.4 | General Remarks : | been done by calculation in accordance with EEC directives. | | |
| | | been done by calculation in accordance with LEC directives. | | |
| | ION 12: Ecological information | | | |
| 2.1 | Toxicity | ning the ecological effects of this product. | | |
| | | ause long-term adverse effects in the aquatic environment. | | |
| 2.2 | Persistence and degradability | | | |
| | Not readily biodegradable. Inherently | biodegradable. er. It can be eliminated from water by abiotic processes. | | |
| 2.3 | Bioaccumulative potential | | | |
| | n.av. | | | |
| 2.4 | Mobility in soil n.av. | | | |
| 2.5 | Results of PBT and vPvB assessm | ent | | |
| 0.0 | n.av. | | | |
| 2.6 2.6.1 | Other adverse effects COD-Value, mg/g : | n av | | |
| 2.6.1 | BOD₅-Value, mg/g : | n.av. n.av. | | |
| 2.6.3 | AOX-Remarks : | Not applicable. | | |
| 2.6.4 | Significant Components : | Hydrocarbons Not applicable. | | |
| 2.6.5 | Other adverse effects : | | | |

Safety Data Sheet in Accordance with regulation 453/2010Page 5 of 5Trade Name : LiO Oil 85W-90 GL 5 (SAE 85-80)

Company / Supplier : ON's Industry Germany Ltd. & Co. KG, Flughafenstraße 52a, D- 22335 Hamburg Telephone : +49 – 40-53299172, Date of issue : 11.08.2011 Replaces Data Sheet of : ---

| SECTION 13: Disposal considerations | | | | | | |
|---|---|-------------------------------------|--|--|--|--|
| 13.1 | Waste treatment methods | | | | | |
| 13.1.1 | Recommendation : Waste - Code - No. : 13 02 05 | | | | | |
| 13.2 | In addition comply with the regional authorities. Contaminated Packaging | | | | | |
| 13.2.1 | Recommendation : Wash with suitable clean | er. Otherwise as described under F | Residues. | | | |
| 13.2.2 | Safe Handling : As described under Resid | lues. | | | | |
| SECTI | ON 14: Transport information | | | | | |
| L | ADR | IMDG | ΙΑΤΑ | | | |
| | Not a dangerous substance as defined in the above regulations. | - | Not a dangerous substance as defined in the above regulations. | | | |
| 14.1 | UN number | 1 | | | | |
| | | | | | | |
| 14.2 | UN proper shipping name | | | | | |
| 44.0 | | | | | | |
| 14.3 | Transport hazard class(es) | | | | | |
| 14.4 | Packing group | | | | | |
| 14.4 | Packing group | | | | | |
| 14.5 | Environmental hazards | | | | | |
| | | | | | | |
| 14.6 | Special precautions for user | 1 | 1 | | | |
| | Transport-category : | | Packing Instructions | | | |
| | Classification Code : | | (Passenger): | | | |
| | Hazard - No.: LQ: | | Packing Instructions (Cargo): | | | |
| 14.7 | Transport in bulk according to Annex II of | MARPOL73/78 and the IBC Code | 1 · · · · | | | |
| | | | | | | |
| SECTI | ON 15: Regulatory information | 1 | <u>'</u> | | | |
| 15.1 | Safety, health and environmental regulation | ons/legislation specific for the su | ubstance or mixture | | | |
| | .,, | | ······································ | | | |
| | No data avaible. | | | | | |
| | | | | | | |
| 45.0 | | | | | | |
| 15.2 | Chemical safety assessment : None. | | | | | |
| SECTION 16: Other information | | | | | | |
| Text of R - phrases mentioned in Section 3: R 22: Harmful if swallowed. | | | | | | |
| R 23/24: Toxic by inhalation and in contact with skin. | | | | | | |
| R 34: Causes burns. R 35: Causes severe burns. | | | | | | |
| R 35: Causes severe burns. R 41: Risk of serious damage to eyes. | | | | | | |
| R 43: May cause sensitization by skin contact. | | | | | | |
| R 48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation. | | | | | | |
| R 50: Very toxic to aquatic organisms. R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. | | | | | | |
| R 50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R 51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. | | | | | | |
| The statements in this Material Safety Data Sheet were made to the best of our knowledge and are as accurate as | | | | | | |
| possible. They are given for information only. They do not constitute a contractual guarantee of a product's properties. | | | | | | |
| They must neither be altered nor transferred to other products. Prepared by : Chemie & Vorschrift, Kannheideweg 35, D-53123 Bonn-Duisdorf, 🖀 +49-228-74 81 824 | | | | | | |
| Receipt of Data : 15.06.2011, clg045b | | | | | | |