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

1.1. Product identifier

Product form : Mixture
Trade name/designation : FORK OIL 5W
Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Industrial use, Professional use, Consumer use
Use of the substance/mixture : Lubricant
Function or use category : Lubricants and additives

1.2.2. Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

JX Nippon Oil & Energy Europe Limited
2F Bury House, 31 Bury Street, London, EC3A 5AR, UK
T +44 20 7186 0400
info@jxeurope.com

1.4. Emergency telephone number

Emergency number : +44 20-7186-400
Only available during office hours.

Country	Official advisory body	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	+353 1 809 21 66 (public, 8am - 10pm, 7/7) +353 01 809 2566 (Professionals, 24/7)
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0844 892 0111 (UK only, 24/7, healthcare professionals only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified


2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Precautionary statements (CLP) : P102 - Keep out of reach of children.
Extra phrases : EUH208 - Contains Alkoxyated long-chain alkyl amine. May produce an allergic reaction.

2.3. Other hazards

Other hazards : Results of PBT and vPvB assessment : Not applicable.

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SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments

: Note L : The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Base oil : distillates hydrotreated heavy paraffinic (DMSO% < 3 %)	(CAS-No.) 64742-54-7 (EC-No.) 265-157-1 (EC Index) 649-467-00-8 (REACH-no) 01-2119484627-25-XXXX	>= 50	Asp. Tox. 1, H304
Mineral oil	(CAS-No.) 8042-47-5 (EC-No.) 232-455-8 (EC Index) - (REACH-no) 01-2119487078-27-XXXX	1 - 3	Asp. Tox. 1, H304
Methacrylate copolymers	(CAS-No.) - (EC-No.) - (EC Index) -	1 - 3	Eye Irrit. 2, H319
Alkoxyated long-chain alkyl amine	(CAS-No.) - (EC-No.) - (EC Index) -	< 1	Skin Sens. 1, H317

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

Additional advice : First aider: Pay attention to self-protection. Concerning personal protective equipment to use, see section 8. Never give anything by mouth to an unconscious person. In case of doubt or persistent symptoms, consult always a physician. Show this safety data sheet to the doctor in attendance.

Inhalation : Remove person to fresh air and keep comfortable for breathing. In case of doubt or persistent symptoms, consult always a physician.

Skin contact : Take off contaminated clothing. Gently wash with plenty of soap and water. In case of doubt or persistent symptoms, consult always a physician.

Eyes contact : Rinse immediately carefully and thoroughly with eye-bath or water. In case of doubt or persistent symptoms, consult always a physician.

Ingestion : Rinse mouth thoroughly with water. Get medical advice/attention.

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

Inhalation : Not expected to present a significant inhalation hazard under anticipated conditions of normal use. Thermal decomposition can lead to the release of irritating gases and vapours. The following symptoms may occur: Irritating to respiratory system, Cough.


Skin contact : May produce an allergic reaction. The following symptoms may occur: May cause skin irritation, Redness, Dry skin.

Eyes contact : The following symptoms may occur: May cause slight irritation, Redness, Tears.

Ingestion : The following symptoms may occur: May cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

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

Treat symptomatically.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : carbon dioxide (CO₂), powder, alcohol-resistant foam, water spray.
 Unsuitable extinguishing media : Strong water jet.

5.2. Special hazards arising from the substance or mixture

Specific hazards : Not flammable. Heating causes rise in pressure with risk of bursting.
 Hazardous decomposition products in case of fire : Carbon oxides (CO, CO₂). Phosphorus oxides. Nitrogen oxides. Sulphur oxides. Hydrogen sulfide. Metal oxides.

5.3. Advice for firefighters

Firefighting instructions : Evacuate area. Use water spray or fog for cooling exposed containers. Contain the extinguishing fluids by bunding. Prevent fire fighting water from entering the environment.
 Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.
 Other information : Do not allow run-off from fire-fighting to enter drains or water courses. Dispose of waste in accordance with environmental legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

For non-emergency personnel : Evacuate unnecessary personnel. Keep upwind. Provide adequate ventilation. Wear recommended personal protective equipment. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Spilled material may present a slipping hazard. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place. Concerning personal protective equipment to use, see section 8.

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak if safe to do so. Dam up the liquid spill.
 Methods for cleaning up : Small quantities of liquid spill: take up in non-combustible absorbent material and shovel into container for disposal. Recover large spills by pumping (use an explosion proof or hand pump). Place in a suitable container for disposal in accordance with the waste regulations (see Section 13). This material and its container must be disposed of in a safe way, and as per local legislation.


6.4. Reference to other sections

Concerning personal protective equipment to use, see section 8. Concerning disposal elimination after cleaning, see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Provide adequate ventilation. Use personal protective equipment as required. Concerning personal protective equipment to use, see section 8. Do not breathe vapours. Avoid contact with skin, eyes and clothing. Take any precaution to avoid mixing with Incompatible materials, Refer to Section 10 on Incompatible Materials. Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time). Avoid release to the environment.

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Hygiene measures : Keep good industrial hygiene. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke when using this product. Keep away from food, drink and animal feedingstuffs. Remove contaminated clothes. Separate working clothes from town clothes. Launder separately. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a dry, cool and well-ventilated place. Do not store near or with any of the incompatible materials listed in section 10. Bund storage facilities to prevent soil and water pollution in the event of spillage.

Incompatible substances or mixtures : Strong oxidizing agents. Acids.

Maximum storage duration : 5 year

Storage temperature : <= 40 °C

Heat and ignition sources : Keep away from open flames, hot surfaces and sources of ignition.

Packaging materials : Keep only in the original container.

7.3. Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Mineral oil (8042-47-5)		
Germany	TRGS 900 Occupational exposure limit value (mg/m ³)	5 mg/m ³ (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed-respirable fraction)
Latvia	OEL TWA (mg/m ³)	5 mg/m ³
Switzerland	MAK (mg/m ³)	5 mg/m ³ (inhalable dust)

Additional information : Personal air monitoring :. Room air monitoring. Recommended monitoring procedures

8.2. Exposure controls

Engineering measure(s) : Provide adequate ventilation. Organisational measures to prevent /limit releases, dispersion and exposure. Safe handling: see section 7 .

Personal protective equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hand protection : Wear chemically resistant gloves (tested to EN374) . Suitable material: PVC (Polyvinyl chloride), Nitrile rubber, Neoprene. Gloves must be replaced after each use and whenever signs of wear or perforation appear. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.


Eye protection : Use suitable eye protection. (EN166): Use splash goggles when eye contact due to splashing is possible

Body protection : Wear suitable protective clothing.

Respiratory protection : Not required for normal conditions of use. In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (EN 140). Full face mask (EN 136). Filter type: AP. The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)

Thermal hazard protection : Not required for normal conditions of use. Use dedicated equipment.

Environmental exposure controls : Avoid release to the environment. Comply with applicable Community environmental protection legislation.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Oily, liquid.
Colour	: No data available
Odour	: Characteristic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: < 0,1
Melting / freezing point	: -39 °C
Freezing point	: No data available
Initial boiling point and boiling range	: > 280 °C
Flash point	: 185 °C
Auto-ignition temperature	: > 240 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable, liquid
Vapour pressure	: < 0,1 hPa (20°C)
Vapour density	: > 1 (20°C) (air=1)
Relative density	: No data available
Density	: 0,86 - 0,87 kg/l
Solubility	: Water: Insoluble
Partition coefficient n-octanol/water	: > 3
Kinematic viscosity	: 25 - 50 cSt
Dynamic viscosity	: No data available
Explosive properties	: Not applicable. The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	: Not applicable. The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.
Explosive limits	: 0,6 - 7 vol %

9.2. Other information

VOC content	: 0 %
Other properties	: Gas/vapour heavier than air at 20°C.

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions. Reference to other sections: 10.4 & 10.5.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions


No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Moisture. Overheating. Safe handling: see section 7.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Safe handling: see section 7.

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10.6. Hazardous decomposition products

Reference to other sections: 5.2.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified (Based on available data, the classification criteria are not met.)

Base oil : distillates hydrotreated heavy paraffinic (DMSO% < 3 %) (64742-54-7)	
LD50/oral/rat	> 2000 mg/kg
LD50/dermal/rabbit	> 5000 mg/kg

Mineral oil (8042-47-5)	
LD50/oral/rat	> 5000 mg/kg (OECD 401)
LD50/dermal/rabbit	> 2000 (OECD 402)
LC50/inhalation/4h/rat	> 5000 mg/m ³ (aerosol)

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: No data available

Serious eye damage/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: No data available

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

Germ cell mutagenicity : Not classified (Based on available data, the classification criteria are not met.)

Carcinogenicity - Description : Not classified (Based on available data, the classification criteria are not met.)

Reproductive toxicity : Not classified (Based on available data, the classification criteria are not met.)

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met.)

STOT-repeated exposure : Not classified (Based on available data, the classification criteria are not met.)

Aspiration hazard : Not classified (Based on available data, the classification criteria are not met.)

FORK OIL 5W	
Kinematic viscosity	25 - 50 mm ² /s

Other information : Symptoms related to the physical, chemical and toxicological characteristics. For further information see section 4.


SECTION 12: Ecological information

12.1. Toxicity

Environmental properties : According to the criteria of the European classification and labelling system, the substance/the product has not to be labelled as "dangerous for the environment".

Base oil : distillates hydrotreated heavy paraffinic (DMSO% < 3 %) (64742-54-7)	
LC50 fish 1	> 5000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	> 1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)

Mineral oil (8042-47-5)	
LC50 fish 1	(96h) > 10000 mg/l Lepomis macrochirus (Bluegill)
LL0, fish, acute	100 - 10000 mg/l (96 hours, Information given is based on data obtained from similar substances.)
ELO, daphnia, acute, Daphnia magna (Big water flea)	100 mg/l (48 hours, Information given is based on data obtained from similar substances.)
ELO, algae, acute, Pseudokirchneriella subcapitata	100 mg/l (72 hours, Information given is based on data obtained from similar substances.)
NOELR, algae, Chronic, Pseudokirchneriella subcapitata	100 mg/l (72 hours, Information given is based on data obtained from similar substances.)
NOELR, daphnia, Chronic, Daphnia magna (Big water flea)	10 - 1000 mg/l (21 days, Information given is based on data obtained from similar substances.)

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12.2. Persistence and degradability

FORK OIL 5W	
Persistence and degradability	Not readily biodegradable.

12.3. Bioaccumulative potential

FORK OIL 5W	
Partition coefficient n-octanol/water	> 3
Bioaccumulative potential	Based on the n-octanol/water partition coefficient significant accumulation in organisms is not expected.

Mineral oil (8042-47-5)	
Partition coefficient n-octanol/water	> 6

12.4. Mobility in soil

FORK OIL 5W	
Mobility in soil	No data available
Ecology - soil	If product enters soil, it will be mobile and may contaminate groundwater. Floats on water.

12.5. Results of PBT and vPvB assessment

FORK OIL 5W	
Results of PBT assessment	No data available

12.6. Other adverse effects

Other adverse effects : No data available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods


Product/Packaging disposal recommendations : Avoid release to the environment. Dispose of empty containers and wastes safely. Safe handling: see section 7. Refer to manufacturer/supplier for information on recovery/recycling. Recycling is preferred to disposal or incineration. If recycling is not possible, eliminate in accordance with local valid waste disposal regulations. Handle contaminated packages in the same way as the substance itself. Dispose of contaminated materials in accordance with current regulations.

European waste catalogue (2001/573/EC, 75/442/EEC, 91/689/EEC) : This material and its container must be disposed of as hazardous waste. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities. The following Waste Codes are only suggestions: 130205 - mineral-based non-chlorinated engine, gear and lubricating oils

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

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ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Special precautions for user : No data available

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Code: IBC : No data available.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006:

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	Base oil : distillates hydrotreated heavy paraffinic (DMSO% < 3 %) - Mineral oil - Alkoxyated long-chain alkyl amine - Methacrylate copolymers
3(b) Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10	Base oil : distillates hydrotreated heavy paraffinic (DMSO% < 3 %) - Mineral oil - Alkoxyated long-chain alkyl amine - Methacrylate copolymers

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

VOC content : 0 %

15.1.2. National regulations

France


Installations classées :

Not applicable.

Germany

VwVwS Annex reference : Water hazard class (WGK) 1, low hazard to waters (Classification according to VwVwS, Annex 4)

12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

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Netherlands

SZW-lijst van kankerverwekkende stoffen : Mineral oil is listed
 SZW-lijst van mutagene stoffen : Mineral oil is listed
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
 NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : None of the components are listed

15.2. Chemical safety assessment


A chemical safety assessment has been carried out for the substance or the mixture by the supplier

For the following substances of this mixture a chemical safety assessment has been carried out
Base oil : distillates hydrotreated heavy paraffinic (DMSO% < 3 %)
Mineral oil

SECTION 16: Other information

Abbreviations and acronyms:

ABM = Algemene beoordelingsmethodiek
ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route
CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods Code
LEL = Lower Explosive Limit/Lower Explosion Limit
UEL = Upper Explosion Limit/Upper Explosive Limit
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
BTT = Breakthrough time (maximum wearing time)
DMEL = Derived Minimal Effect level
DNEL = Derived No Effect Level
EC50 = Median Effective Concentration
EL50 = Median effective level
ErC50 = EC50 in terms of reduction of growth rate
ErL50 = EL50 in terms of reduction of growth rate
EWC = European waste catalogue
LC50 = Median lethal concentration
LD50 = Median lethal dose
LL50 = Median lethal level
NA = Not applicable
NOEC = No observed effect concentration
NOEL: no-observed-effect level
NOELR = No observed effect loading rate
NOAEC = No observed adverse effect concentration
NOAEL = No observed adverse effect level
N.O.S. = Not Otherwise Specified
OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
PNEC = Predicted No Effect Concentration
Quantitative structure-activity relationship (QSAR)
STOT = Specific Target Organ Toxicity
TWA = time weighted average
VOC = Volatile organic compounds

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WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)

Sources of key data used to compile the datasheet : ECHA (European Chemicals Agency). Supplier.

Training advice : Training staff on good practice.

Other information : Assessment/classification CLP. Article 9. Calculation method.

Full text of H- and EUH-statements:

Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Skin Sens. 1	Skin sensitisation, hazard category 1
H304	May be fatal if swallowed and enters airways.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
EUH208	Contains . May produce an allergic reaction.

According to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

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