1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

1.1.1 Commercial Product Name

NEXBASE® 3043

1.1.2 Product code

192508, 822600, (ID 12553)

REACH Registration Number

01-2119474889-13-0000 / 01-2119474889-13-0003

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

1.2.1 Recommended use

Manufacture of substance
Use as an intermediate
Distribution of substance
Formulation & (re)packing of substances and mixtures
Uses in Coatings
Use in Cleaning Agents
Use in Oil and Gas field drilling and production operations
Metal working fluids / rolling oils
Use as binders and release agents
Use in Agrochemicals
Road and construction applications
Rubber production and processing
Polymer processing
Lubricants
Use in laboratories
Mining chemicals
Water treatment chemicals
Explosives manufacture & use
Functional fluid

See the PROC/SU/ERC codes of the identified uses in Section 16.

1.3 Details of the supplier of the safety data sheet

1.3.1 Supplier

	Neste Oil N.V.
P.O.Box	Industrieweg 154
Postcode and post office	B-3583 Beringen, BELGIUM
Telephone	+32 11 459 511
Telefax	+32 11 459 512
Business ID	BE451.251.225
Email	nexbase@nesteoil.com

1.4 Emergency telephone number

1.4.1 Telephone number, name and address

Neste Oil Oyj +358-10 45 82267
Poison Information Centre +358-9-471 977, +358-9-4711
P.O.B 340 (Haartmaninkatu 4)
FIN-00029 HUS, HELSINKI, FINLAND

2. HAZARDS IDENTIFICATION

CLP-regulation: May be fatal if swallowed and enters airways. (Asp. Tox. 1, H304)
Dangerous Substances/Preparations Directive (DSD-DPD): Product is not classified hazardous.

2.1 Classification of the substance or mixture

1272/2008 (CLP)
Asp. Tox. 1, H304
67/548/EEC - 1999/45/EC
-;

2.2 Label elements

1272/2008 (CLP)
GHS08

Signal word **Danger**

Hazard Statements

H304 May be fatal if swallowed and enters airways.

Precautionary Statements

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P331 Do NOT induce vomiting.
P501 Dispose of contents/container in compliance with local and national regulations.

2.3 Other hazards

Oil mist may irritate the eyes and the respiratory tract. Prolonged or repeated skin contact may irritate the skin and produce dermatitis. Risk of soil and ground water contamination.

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

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CAS number	Chemical name of the substance	Concentration	Classification
72623-87-1 /276-38-4 (CAS/EC)	Lubricating oils (petroleum), C20-C50, hydrotreated neutral oil-based	100%	CLP: Asp. Tox. 1, H304 DSD-DPD: -

3.3 Other information

A petroleum product. DMSO extract < 3 Weight % (IP 346). Registration number, See chapter 1.1.2.

4. FIRST AID MEASURES

4.1 Description of first aid measures

4.1.2 Inhalation

Inhalation is unlikely because of the low vapour pressure of the substance at ambient temperature. If breathed in, move person into fresh air. Consult a physician.

4.1.3 Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. If skin irritation persists, call a physician. Splashes of hot product cause burns in the eyes and on the skin. Seek medical attention in all cases of serious burns.

4.1.4 Eye contact

Rinse immediately with plenty of water, also under the eyelids. If eye irritation persists, consult a specialist.

4.1.5 Ingestion

DO NOT INDUCE VOMITING. In case of ingestion, always assume that aspiration has occurred. Consult a physician (risk of aspiration into the lungs especially if nausea or irritation occurs).

4.2 Most important symptoms and effects, both acute and delayed

Aspiration into the lungs can cause fatal chemical pneumonitis. Oil mist may irritate the eyes and the respiratory tract.

4.3 Indication of immediate medical attention and special treatment needed

Aspiration into the lungs can cause fatal chemical pneumonitis.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

5.1.1 Suitable extinguishing media

Dry powder, carbon dioxide. Sand. Heavy foam and water fog for professional fire-fighters.

5.1.2 Extinguishing media which must not be used for safety reasons

Water jet.

5.2 Special hazards arising from the substance or mixture

Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide.

5.3 Advice for firefighters

Precautions for fire-fighting: Self-contained breathing apparatus and full protective clothing.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate unnecessary personnel. Avoid skin contact and inhalation of oil mist. Wear adequate protective equipment at all operations. Spillages make surfaces slippery.
Remove all sources of ignition. Take measures to prevent the build up of electrostatic charge. Large spillages may be cautiously covered with foam, if available, to limit fire risk.

6.2 Environmental precautions

Try to restrict the release and prevent spread of the product into the environment. Collect liquid before it spreads into drains, the ground and waters. In case of spill, immediately contact local authorities. Risk of soil and ground water contamination.

6.3 Methods and materials for containment and cleaning up

Immediately start clean-up of the liquid and contaminated soil. Large spills should be collected mechanically (remove by pumping) for disposal. Small amounts can be collected using absorbent material.
If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities.

6.4 Reference to other sections

For personal protection see section 8. Product waste should be disposed in accordance with item 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Provide sufficient ventilation when handling the product. Avoid skin contact and inhalation of oil mist. Wear protective equipment when needed. Do not ingest. When using, do not eat, drink or smoke. Wash hands before breaks and at the end of workday. Spillages make surfaces slippery. Wear safety shoes while handling containers.
Keep away from fire, sparks and heated surfaces. Take measures to prevent the build up of electrostatic charge. Avoid splash filling of bulk volumes when handling hot liquid product For personal protection see section 8.

7.2 Conditions for safe storage, including any incompatibilities

Keep tightly closed in a dry, cool and well-ventilated place. Protect against light. Take precautionary measures to prevent product spills into drains, the ground or waters. Any possible leakage is considered by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations. Store in accordance with local regulations.
Keep in properly labelled containers. Recommended materials for containers, or container linings use mild steel, stainless steel. Some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use.

7.3 Specific end use(s)
None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Threshold limits

Oil mist	5 mg/m^3 (8 h) HTP 2009/ FIN

8.1.2 Other information on limit values
The occupational exposure monitoring method: Oil mist: NIOSH Method 5026, SFS-EN 689.

8.1.3 Limit values in other countries
5 mg/m³, TLV-TWA, (ACGIH)

8.1.4 DNELs
The substance is only classified H304 (May be fatal if swallowed and enters airways). There are no routine anticipated exposures by ingestion related to any supported uses of this substance. Thus a DNEL derivation is not justified.

8.1.5 PNECs
PNEC derivation is not scientifically justified based on water solubility limitations.

8.2 Exposure controls

8.2.1 Appropriate engineering controls
Ensure adequate ventilation. Use personal protective equipment and/or local ventilation when needed.

8.2.2 Individual protection measures

8.2.2.1 Respiratory protection
Oil mist: respirator (combined particle and organic vapour filter, type A2/P2). Filter device could be used maximum 2 hours at a time. Filter devices must not be used in conditions where the oxygen level is low (< 17 vol.-%). At high concentrations a breathing apparatus must be used (self-contained or fresh air hose breathing apparatus). Filter must be changed often enough. Respirators according to standards EN 140 and EN 141.

8.2.2.2 Hand protection
Protective gloves: PVC, Nitrile rubber. Change protective gloves regularly. Protective gloves according to standards EN 420 and EN 374.

8.2.2.3 Eye/face protection
Tightly fitting safety goggles.

8.2.2.4 Skin protection
Protective clothing (antistatic), splash-proof chemical protective clothing when needed.

8.2.3 Environmental exposure controls
Any possible leakage is considered by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

9.1.1 Appearance
Colourless, clear liquid.

9.1.2	**Odour**	almost odourless
9.1.3	**Odour threshold**	-
9.1.4	**pH**	-
9.1.5	**Melting point/freezing point**	Pour point / Melting point ≤ -12 °C, (ASTM D-97).
9.1.6	**Initial boiling point and boiling range**	350-600 °C

9.1.7	**Flash point**	> 220°C, (ASTM D-92).
9.1.8	**Evaporation rate**	-
9.1.9	**Flammability (solid, gas)**	-
9.1.10	**Explosive properties**	
9.1.10.1	**Lower explosion limit**	-
9.1.10.2	**Upper explosion limit**	-
9.1.11	**Vapour pressure**	< 0,1 hPa (20 °C)
9.1.12	**Vapour density**	-
9.1.13	**Relative density**	0.82-0.84 (15°C) , (ASTM D-4052).
9.1.14	**Solubility(ies)**	
9.1.14.1	**Water solubility**	insoluble
9.1.14.2	**Fat solubility (solvent /oil to be specified)**	-
9.1.15	**Partition coefficient: n-octanol/water**	Base oil hydrocarbons log Kow > 6
9.1.16	**Auto-ignition temperature**	-
9.1.17	**Decomposition temperature**	-
9.1.18	**Viscosity**	Kinematic viscosity, typical value: 20 mm²/s (40°C) , (ASTM D-445). Viscosity, dynamic ≤ 50 mPa.s @ temperature min. + 22 °C
9.1.19	**Explosive properties**	None.
9.1.20	**Oxidising properties**	None.

9.2 Other information

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10. STABILITY AND REACTIVITY

10.1 Reactivity

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

None known.

10.4 Conditions to avoid

Keep away from fire, sparks and heated surfaces.

10.5 Incompatible materials

Incompatible with strong acids and oxidizing agents.

10.6 Hazardous decomposition products

No hazardous decomposition products are known.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

11.1.1 Acute toxicity

Very low toxicity:
LD50/oral/rat = > 5000 mg/kg (OECD 401).
LD50/dermal/rabbit = > 2000 mg/kg (OECD 402).
LC50/inhalation/4h/rat = > 5.53 mg/L (OECD 403).

11.1.2 Irritation and corrosion
Not classified. (OECD 404, 405). Oil mist may irritate the eyes and the respiratory tract. Prolonged or repeated skin contact may irritate the skin and produce dermatitis.

11.1.3 Sensitisation
Not a skin sensitizer. (OECD 406).

11.1.4 Subacute, subchronic and prolonged toxicity
Not classifiable as a human carcinogen. (OECD 451, 453).
No toxicity to reproduction (OECD 421).
Damage to fetus not classifiable (OECD 414).
Genotoxicity tests (in vitro and in vivo) have been negative. (OECD 471, 473, 474, 476)

11.1.5 STOT-single exposure
No known effect.

11.1.6 STOT-repeated exposure
No known effect.

11.1.7 Aspiration hazard
Aspiration into the lungs can cause fatal chemical pneumonitis.

11.1.8 Other information on acute toxicity
Toxicological data are based on tests with corresponding products or components.
Used oils may contain accumulated contaminants dangerous to health and the environment.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

12.1.1 Aquatic toxicity
Very low toxicity:

Acute aquatic toxicity
fish: LL50/96h > 100 mg/L; NOEL/96h >= 100 mg/L (OECD 203)
crustacean: EL50/24-48h; NOEL/48-96h; LL50/24-96h > 10 000 mg/L (OECD 202)
alga: NOEL/72h >= 100 mg/L (OECD 201)

Chronic aquatic toxicity:
crustacean: NOEL/21d = 10 mg/L (OECD 211)

12.1.2 Toxicity to other organisms
Very low toxicity. Toxicity to microorganisms: NOEL/10min > 1.93 mg/L (DIN 38412, DIN38409)

12.2 Persistence and degradability

12.2.1 Biodegradation
Not readily degradable (OECD301B).

12.2.2 Chemical degradation
Not readily degradable.

12.3 Bioaccumulative potential
Base oil hydrocarbons are possibly accumulative (log Kow > 6).

12.4 Mobility in soil
The product is insoluble in water and mainly not volatile. Product can penetrate soil until reaching the surface of ground water. Degradation occurs extremely slowly under anaerobic conditions. Base oil hydrocarbons can be adsorbed onto organic material in soil or sediment (log Kow > 6).

12.5 Results of PBT and vPvB assessment
This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB). (anthracene < 0.1 %)

12.6 Other adverse effects
Information given is based on data on the components and the ecotoxicology of similar products.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product waste is hazardous waste. It should be treated according to national regulations and local authorities' advice.

13.2 Waste from residues / unused products

Used oils may contain accumulated contaminants dangerous to health and the environment. Empty containers may contain combustible product residues Empty containers should be taken for local recycling or waste disposal.

14. TRANSPORT INFORMATION

14.1	**UN number**	Not classified as dangerous in the meaning of transport regulations.
14.2	**UN proper shipping name**	-
14.3	**Transport hazard class(es)**	-
14.4	**Packing group**	-

14.5 Environmental hazards

-

14.6 Special precautions for users

-

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

Bulk : (MARPOL 73/78, Annex II): Noxious liquid, NF, (5) n.o.s. (NEXBASE 3043, contains Cycloalkanes C 12 +), ST 2, Cat. Y. According to MARPOL: "Non-solidifying substance".

15. REGULATORY INFORMATION

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

WGK = 1 (Wassergefährdungsklasse, Germany)

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.2 Chemical safety assessment

A Chemical Safety Assessment has been carried out for this substance.

The substance is only classified H304 (May be fatal if swallowed and enters airways). There are no routine anticipated exposures by ingestion related to any supported uses of this substance. The risk can therefore be controlled by implementing the risk management measures represented in this Safety Data Sheet, and exposure scenarios are not required.

16. OTHER INFORMATION

16.1 Additions, Deletions, Revisions

Updated according to regulation (EU) N:o 453/2010 amending regulation (EC) N:o 1907/2006 (REACH). Chemical Safety Assessment. Identified uses.

16.2 Key or legend to abbreviations and acronyms

CLP= Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
DSD= Council Directive (67/548/EEC) on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances
DPD= Directive 1999/45/EC of the European Parliament and of the Council concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations

DNEL = Derived No-Effect Level
PNEC = Predicted No-Effect Concentration
PROC = Process Category
SU = Sector of Use
ERC = Environmental Release Category

16.3 Key literature references and sources for data

Concawe Report no. 11/2010; Hazard Classification and labelling of petroleum substances in the EEA - 2010 (Concawe, 2010).
Chemical Safety Report; Other Lubricant Base Oils (Concawe, 2010).

16.5 List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements

H304 May be fatal if swallowed and enters airways.

16.7 Recommended restrictions

Identified uses:

Manufacture of substance (PROC 1, 2, 3, 4, 8a/b, 15; SU 3, 8, 9; ERC1, 4)
Use as an intermediate (PROC 1, 2, 3, 4, 8a/b, 15; SU 3, 8, 9; ERC 6a)
Distribution of substance (PROC 1, 2, 3, 4, 8a/b, 9, 15; SU 3; ERC 1, 2, 3, 4, 5, 6a/b/c/d, 7)
Formulation & (re)packing of substances and mixtures (PROC 1, 2, 3, 4, 5, 8a/b, 9, 14, 15; SU 3, 10; ERC 2)
Uses in Coatings:
Industrial use (PROC 1, 2, 3, 4, 5, 7, 8a/b, 10, 13, 15; SU 3; ERC 4);
Professional use (PROC 1, 2, 3, 4, 5, 8a/b, 10, 11, 13, 15, 19; SU 22; ERC 8a/d);
Consumers (PROC n.a.; SU 21; ERC 8a/d)
Use in Cleaning Agents:
Industrial use (PROC 1, 2, 3, 4, 7, 8a/b, 10, 13, SU 3; ERC 4);
Professional use (PROC 1, 2, 3, 4, 8a/b, 10, 11, 13, SU 22; ERC 8a/d);
Consumers (PROC n.a.; SU 21; ERC 8a/d)
Use in Oil and Gas field drilling and production operations:
Industrial use (PROC 1, 2, 3, 4, 8a/b; SU 3; ERC 4);
Professional use (PROC 1, 2, 3, 4, 8a/b; SU 22; ERC 8d)
Metal working fluids / rolling oils:
Industrial use (PROC 1, 2, 3, 4, 5, 7, 8a/b, 9, 10, 13, 17; SU 3; ERC 4);
Professional use (PROC 1, 2, 3, 5, 8a/b, 9, 10, 11, 13, 17; SU 22; ERC 8a/d)
Use as binders and release agents:
Industrial use (PROC 1, 2, 3, 4, 6, 7, 8b, 10, 13, 14; SU 3; ERC 4);
Professional use (1, 2, 3, 4, 6, 8a/b, 10, 11, 14; SU 22; ERC 8a/d)
Use in Agrochemicals:
Professional use (PROC 1, 2, 4, 8a/b, 11, 13; SU 22; ERC 8a/d);
Consumers (PROC n.a.; SU 21; ERC 8a/d)
Road and construction applications: Professional use (PROC 8a/b, 9, 10, 11, 13; SU 22; ERC 8d/f)
Rubber production and processing: Industrial use (PROC 1, 2, 3, 4, 5, 6, 7, 8a/b, 9, 13, 14, 15, 21; SU 3, 10, 11; ERC 1, 4, 6d)
Polymer processing:
Industrial use (PROC 1, 2, 3, 4, 5, 6, 8a/b, 9, 13, 14, 21; SU 10; ERC 4);
Professional use (PROC 1, 2, 6, 8a/b, 14, 21; SU 22; ERC 8a/d)
Lubricants:
Industrial use (1, 2, 3, 4, 7, 8a/b, 9, 10, 13, 17, 18; SU 3; ERC 4, 7);
Professional use (PROC 1, 2, 3, 4, 8a/b, 9, 10, 11, 13, 17, 18, 20; SU 22; ERC (low release) 9a/b; ERC (high release) 8a/d);
Consumers (PROC n.a.; SU 21; ERC (low release) 9a/b; ERC (high release) 8a/d)
Use in laboratories:
Industrial use (PROC 10, 15, SU 3; ERC 2, 4);
Professional use (PROC 10, 15, SU 22; ERC 8a)
Mining chemicals: Industrial use (PROC 1, 2, 3, 4, 5, 8a/b, 9; SU 10; ERC 4)
Water treatment chemicals:
Industrial use (PROC 1, 2, 3, 4, 8a/b, 13; SU 10; ERC 3, 4);
Professional use (PROC 1, 2, 3, 4, 8a/b, 13; SU 22; ERC 8f)
Explosives manufacture & use: Professional use (PROC 1, 3, 5, 8a/b; SU 22; ERC 8e)
Functional fluid:
Industrial use (PROC 1, 2, 3, 4, 8a/b, 9; SU 3; ERC 7);
Professional use (PROC 1, 2, 3, 8a, 9, 20; SU 22; ERC 9a/b);
Consumers (PROC n.a.; SU 21; ERC 9a/b)

16.8 Further information

ADDITIONAL INFORMATION AVAILABLE FROM:
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Neste Oil N.V., Beringen, Belgium tel. +32 11 459 511, fax. +32 11 459 512, e-mail: nexbase@nesteoil.com