

REOLUBE TURBOFLUID 46 XC

Version 1.1

Revision Date 06/23/2017

Print Date 10/17/2017

SECTION 1. IDENTIFICATION

Product name: REOLUBE TURBOFLUID 46 XC

Product Use Description: Lubricant

Company: LANXESS Canada Co./Cie
25 ERB STREET
Elmira, Ontario
N3B 3A3 Canada
Telephone: (US) +1 866-430-2775

Emergency telephone number: :
CANUTEC: 613-996-6666 (call collect) (CANUTEC)

For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

Prepared by Product Safety Department
(US) +1 866-430-2775

MSDSRequest@chemtura.com

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant

Restrictions on use : Industrial use, Professional use

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Reproductive toxicity : Category 2

Specific target organ toxicity
- repeated exposure : Category 2

Acute aquatic toxicity : Category 3

Chronic aquatic toxicity : Category 3


GHS label elements

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- Hazard pictograms : 
- Signal word : Warning
- Hazard statements : H361 Suspected of damaging fertility or the unborn child.
H373 May cause damage to organs through prolonged or repeated exposure.
H412 Harmful to aquatic life with long lasting effects.
- Precautionary statements : **Prevention:**
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

The following percentage of the mixture consists of ingredient(s) with unknown acute toxicity:
98.5001 %

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Chemical name	CAS-No.	Concentration (% w/w)
trixyllyl phosphate	25155-23-1	>= 90 - <= 100
tris(methylphenyl) phosphate	1330-78-5	>= 0.1 - < 1

SECTION 4. FIRST AID MEASURES

- If inhaled : Move to fresh air.
Obtain medical attention.
- In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off immediately with plenty of water for at least 15 minutes.
Wash off with soap and water.
If symptoms persist, call a physician.
- In case of eye contact : Rinse thoroughly with plenty of water, also under the eyelids.

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- Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- If swallowed : If conscious, make the victim drink the following:
Drink 1 or 2 glasses of water.
Get medical attention immediately.
- Most important symptoms and effects, both acute and delayed : toxic effects for reproduction
- Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Carbon dioxide (CO₂)
Alcohol-resistant foam
Dry sand
ABC powder
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Burning produces irritant fumes.
Exposure to decomposition products may be a hazard to health.
- Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.
Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Evacuate personnel to safe areas.
Use personal protective equipment.
- Environmental precautions : Discharge into the environment must be avoided.
Do not contaminate water.
Do not flush into surface water or sanitary sewer system.
- Methods and materials for containment and cleaning up : Ventilate the area.
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : Handle in accordance with good industrial hygiene and safety practice.
Wear personal protective equipment.

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Keep away from fire, sparks and heated surfaces.
Avoid contact with skin, eyes and clothing.
Do not breathe vapours or spray mist.

Conditions for safe storage : Keep in a dry, cool and well-ventilated place.
Keep container tightly closed.
Protect from contamination.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Contains no substances with occupational exposure limit values.				
trixylyl phosphate	25155-23-1	TWAEV	0.1 mg/m3	CA ON OEL
		TWA	0.1 mg/m3	CA ON OEL

Engineering measures : Maintain air concentrations below occupational exposure standards.
Handle only in a place equipped with local exhaust (or other appropriate exhaust).

Personal protective equipment

Respiratory protection : When using this product at elevated temperatures, wear a respirator with a vapour filter (see section 8).
Respirator with a vapour filter (EN 141)

Hand protection

Remarks : Solvent-resistant gloves (butyl-rubber) Nitrile rubber

Eye protection : Safety goggles

Skin and body protection : To protect against splashes from pouring:
Chemical resistant apron
Impervious clothing
Rubber or plastic boots

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Colour : colourless

Odour : slight

Odour Threshold : No data available

pH : No data available

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	: Not applicable
Boiling point/boiling range	: > 300 °C (1,013.25 hPa)
Flash point	: 250 °C Method: open cup, Cleveland open cup
Evaporation rate	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: 0.440 hPa (200 °C)
Relative vapour density	: No data available
Relative density	: 1.130 - 1.153 (20 °C)
Solubility(ies)	
Water solubility	: insoluble
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: > 6.20
Auto-ignition temperature	: 575 °C Auto-flammability
Decomposition temperature	: > 300 °C
Viscosity	
Viscosity, dynamic	: 100 mPa.s (25 °C)
Viscosity, kinematic	: 41.4 - 46.0 mm ² /s (40 °C)
Self-Accelerating decomposition temperature (SADT)	: Method: No information available.
Oxidizing potential	: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerisation does not occur.
Conditions to avoid	: Exposure to moisture Contamination

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Incompatible materials : Strong acids and strong bases
Strong oxidizing agents

Hazardous decomposition products : Carbon oxides
Oxides of phosphorus

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

trixyllyl phosphate:

Acute oral toxicity : LD50 (Rat): 14,750 mg/kg

Acute inhalation toxicity : LC50 (Rat): > 5.28 mg/l

Acute dermal toxicity : LD50 (Rabbit): > 20,000 mg/kg

Skin corrosion/irritation

Components:

trixyllyl phosphate:

Species: Rabbit
Result: Mild skin irritation

Serious eye damage/eye irritation

Components:

trixyllyl phosphate:

Species: Rabbit
Result: No eye irritation

Respiratory or skin sensitisation

Product:

Remarks: Not classified due to data which are conclusive although insufficient for classification.

Germ cell mutagenicity

Components:

trixyllyl phosphate:

Genotoxicity in vitro : Test Type: Ames test
Result: negative

tris(methylphenyl) phosphate:

Germ cell mutagenicity - : In vitro tests did not show mutagenic effects

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Assessment

Carcinogenicity

Components:

tris(methylphenyl) phosphate:

Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Components:

trixylyl phosphate:

Reproductive toxicity - Assessment : Clear evidence of adverse effects on sexual function and fertility, based on animal experiments.

tris(methylphenyl) phosphate:

Effects on foetal development : Species: Rat
Application Route: Oral
Developmental Toxicity: NOEL: 20 mg/kg

Reproductive toxicity - Assessment : Suspected of damaging fertility or the unborn child.
Did not show teratogenic effects in animal experiments.

STOT - repeated exposure

Product:

Assessment: May cause damage to organs through prolonged or repeated exposure.

Components:

trixylyl phosphate:

Exposure routes: Oral
Target Organs: Testes, Adrenal gland, female reproductive organs, Liver
Assessment: May cause damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Product:

No aspiration toxicity classification

Further information

Product:

Remarks: Experiments have shown reproductive toxicity effects on laboratory animals.
Possible risk of impaired fertility.

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Fish):
Exposure time: 96 h
Remarks: No data available

Toxicity to daphnia and other aquatic invertebrates :
Remarks: No data available

Components:

trixylol phosphate:

Toxicity to fish : LC50 (Pimephales promelas (fathead minnow)): 1.11 mg/l
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.06 mg/l
Exposure time: 48 h

EC50 (Daphnia magna (Water flea)): 3.86 mg/l
Exposure time: 48 h

Toxicity to algae : (Scenedesmus capricornutum (fresh water algae)): > 1.01 mg/l
Exposure time: 96 h

M-Factor (Acute aquatic toxicity) : 10

tris(methylphenyl) phosphate:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.75 mg/l
Exposure time: 96 h

LC50 (Pimephales promelas (fathead minnow)): > 100 mg/l
Exposure time: 96 h

LC50 (Oncorhynchus mykiss (rainbow trout)): 0.6 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 0.146 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

EC50 (Daphnia magna (Water flea)): 0.27 mg/l
Exposure time: 48 h

M-Factor (Acute aquatic toxicity) : 1

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Toxicity to bacteria : EC50 (activated sludge): > 100 mg/l
Exposure time: 3 h
Test Type: Respiration inhibition

Persistence and degradability

Product:

Biodegradability : Biodegradation: ca. 25 %
Exposure time: 175 d

Components:

trixyl yl phosphate:

Biodegradability : Biodegradation: 25 %
Exposure time: 125 d

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Components:

trixyl yl phosphate:

Partition coefficient: n-octanol/water : log Pow: > 6.20

tris(methylphenyl) phosphate:

Partition coefficient: n-octanol/water : Pow: 5.93

Mobility in soil

Product:

Mobility : Remarks: No data available

Other adverse effects

Product:

Results of PBT and vPvB assessment : This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

Additional ecological information : Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of wastes in an approved waste disposal facility. The product should not be allowed to enter drains, water courses or the soil.

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In accordance with local and national regulations.
Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with chemical or used container.

Contaminated packaging : Dispose of as unused product.
Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION**International Regulations****IATA-DGR**

UN/ID No. : UN 3082
Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.
(trixylyl phosphate, tris(methylphenyl) phosphate)
Class : 9
Packing group : III
Labels : Miscellaneous

IMDG-Code

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(trixylyl phosphate, tris(methylphenyl) phosphate)
Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

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

Not applicable for product as supplied.

National Regulations**TDG**

UN number : UN 3082
Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,
N.O.S.
(trixylyl phosphate, tris(methylphenyl) phosphate)
Class : 9
Packing group : III
Labels : 9
ERG Code : 171
Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

Please note that Section 3 of this document lists only the hazardous components required by the specific country or region hazard communication regulations. The chemical identifiers listed in Section 3 are used globally for hazard communication purposes and may not

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reflect those used for chemical inventory coverage in a particular country or region. The chemical inventory information given in Section 15 of this document applies to the product as a whole and should be used when evaluating inventory compliance.

The components of this product are reported in the following inventories:

- DSL : All components of this product are on the Canadian DSL
- AICS : On the inventory, or in compliance with the inventory
- NZIoC : On the inventory, or in compliance with the inventory
- ENCS : Not in compliance with the inventory
- KECI : Not in compliance with the inventory
- PICCS : Not in compliance with the inventory
- IECSC : On the inventory, or in compliance with the inventory
- TCSI : On the inventory, or in compliance with the inventory
- US.TSCA : On TSCA Inventory

Canadian lists

Canada. Canadian Environmental Protection Act (CEPA). WHMIS Ingredient Disclosure List (Can. Gaz., Part II, Vol. 122, No. 2): WHMIS Ingredient Disclosure List IDL: No component is listed on the WHMIS ingredients disclosure list.

Canada. Canadian Environmental Protection Act (CEPA). National Pollutant Release Inventory (NPRI) (Can. Gaz. Part I, 135:12, 940): Canadian National Pollutant Release Inventory (NPRI): No component is listed on NPRI.

Canada. CEPA 1999 Significant New Activity (SNAc) List: No substances are subject to a Significant New Activity Notification.

SECTION 16. OTHER INFORMATION

Other Emergency Phone Number

<u>Latin America:</u>	Brazil	+55 113 711 9144
	All other countries	+44 (0) 1235 239 670
<u>Mexico:</u>		+52 555 004 8763

Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR - Carcinogen, Mutagen or Reproductive Toxicant; CPR - Controlled Products Regulations; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada);

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ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative; WHMIS - Workplace Hazardous Materials Information System

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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