



SAFETY DATA SHEET

Optima C2 LSC 0W-30

Product Code: M471

SECTION 1 IDENTIFICATION OF SUBSTANCE/MIXTURE AND OF COMPANY/UNDERTAKING

1.1 Product Identifier	Optima C2 LSC 0W-30
Product Code	M471
1.2 Relevant identified uses of the substance or mixture and uses advised against	Automotive engine crankcase lubricant. Do not use in any other application.
1.3 Company	Exol Lubricants Limited All Saints Road Wednesbury, West Midlands, WS10 9TS
1.4 Emergency Telephone Number	+44 (0) 121 568 6800 (Monday – Friday 08.30 – 17.00 hrs GMT)
1.5 Other Information	Preparation Date: 26/09/18

SECTION 2 HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture	Not classified as hazardous in accordance with CLP (EC 1272/2008) and DPD (1999/45/EC)
2.2 Label Elements	No labelling required
2.3 Other Hazards	None known

SECTION 3 COMPOSITION/ INFORMATION ON INGREDIENTS

3.2 Mixtures Component	EC No./CAS No.	REACH Reg. No.	GHS Classification	Conc. %
Distillates (petroleum) hydrotreated heavy paraffinic	265-157-1	01-2119484627-25	Asp. Tox. 1: H304	<25
1-Decene, homopolymer, hydrogenated	68037-01-4	Not Available	Asp. Tox. 1: H304	<40
Mineral Oil	Mixture	Not Available	Asp. Tox. 1: H304	<4
Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated	500-183-1	01-2119486452-34	Asp. Tox. 1: H304	<4
Reaction products of Benzeneamine, N-phenyl- with nonene (branched)	253-249-4	01-2119488911-28	Aquatic Chronic 4; H413	<2
Benzenepropanoic acid, 3,5-bis(1,1-dimethylethyl)-4-hydroxy-, C7-9-branched alkyl esters	406-040-9	01-0000015551-76	Aquatic Chronic 4; H413	<2
Phenol, dodecyl-, branched	310-154-3	01-2119513207-49	Eye Dam. 2; H319 Repr. 2; H361f Skin Corr. 2; H315 Aquatic Acute 1; H400 Aquatic Chronic 1; H410	<0.5
Alcohols, C12-16, ethoxylated	500-221-7	Not Available	Eye Dam. 1; H318 Aquatic Acute 1; H400 Aquatic Chronic 3; H412	<0.2

SECTION 4 FIRST AID MEASURES

4.1 Description of first aid measures	
Inhalation	Unlikely If spray/mist has been inhaled, proceed as follows. Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms are severe or persist.
Eyes	Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.



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- Skin** Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin. Get medical attention if irritation persists after washing.
- 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** See Section 11
- 4.3 Indication of immediate medical attention and special treatment needed, if necessary** Treat symptomatically.

SECTION 5 FIRE-FIGHTING MEASURES

- 5.1 Extinguishing media** Foam, dry powder or water fog or carbon dioxide. Water can be used to cool and protect exposed material.
- 5.2 Specific hazards arising from the substance or mixture** Not known
- 5.3 Advice for fire-fighters** Wear positive pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

- 6.1 Personal precautions, protective equipment and emergency procedures** Wear adequate protective equipment at all operations.
- 6.2 Environmental precautions** Avoid release to the environment. Stop leak if safe to do so. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air). Risk of soil and ground water contamination.
- 6.3 Methods and material 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 spillages: Absorb spillage with sand or other inert absorbent.
- 6.4 Reference to other sections** Personal protective equipment: See section 8

SECTION 7 HANDLING AND STORAGE

- 7.1 Precautions for safe handling** Keep container closed when not in use and use with adequate ventilation. Observe good industrial hygiene practices. Provide adequate ventilation. Wear appropriate personal protective equipment. Avoid environmental contamination.
- 7.2 Conditions for safe storage, including any incompatibilities** Odorous and toxic fumes may form from the decomposition of this product if stored at temperatures in excess of 113 deg F (45 deg C) for extended periods of time or if heat sources in excess of 250 deg F (121 deg C) are used. Store away from incompatible materials. See section 10 for incompatible materials.
- 7.3 Specific end use(s)** See section 1

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Control parameters**
Occupational exposure limits None of the components have assigned exposure limits
- 8.2 Exposure controls** Material should be handled in enclosed vessels and equipment, in which case general (mechanical) room ventilation should be sufficient. Local exhaust ventilation should be used at points where dust, mist, vapours or gases can escape into the room air. No special requirements under ordinary conditions of use and with adequate ventilation.
- General Information:** Please follow the recommended personal protective equipment (PPE) guidelines below and refer to the appropriate EN standard where applicable. Use personal protective equipment as required.
- Hand Protection:** Use nitrile or neoprene gloves. Use good industrial hygiene practices. In case of skin contact, wash hands and arms with soap and water.
- Eye Protection:** If contact is likely, safety glasses with side shields are recommended. Eye protection should meet the standards set out in EN 166.



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Skin Protection: Protective clothing when needed. Wear anti-static protective clothing if there is a risk of ignition from static electricity

Respiratory Protection: Use respirator with an organic vapour cartridge if exposure limit is exceeded. Use respirator with a combination organic vapour and dust/mist cartridge. A respiratory protection program compliant with all applicable regulations must be followed whenever workplace conditions require the use of a respirator. Under normal use conditions, respirator is not usually required. Use appropriate respiratory protection if exposure to dust particles, mist or vapours is likely. Use self-contained breathing apparatus for entry into confined space, for other poorly ventilated areas and for large spill clean-up sites.
Respiratory Protective Equipment (RPE) is not normally required where there is adequate natural or local exhaust ventilation to control exposure.
In case of insufficient ventilation, wear suitable respiratory equipment.
The correct choice of respiratory protection depends upon the chemicals being handled, the conditions of work and use, and the condition of the respiratory equipment.
Safety procedures should be developed for each intended application.
Respiratory protection equipment should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.
Please refer to the relevant EN standards for the RPE selected

Environmental exposure Controls: Take precautions against leakage by constructing collecting pools and sewerage systems as well as by surfacing the loading and unloading stations.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties Does not constitute a specification

Typical Values	Units	Optima C2 LSC 0W-30
Grades:		
Appearance		Amber Liquid
Odour		Mild
Odour Threshold		No data available
pH		Not applicable
Pour point/range	°C	-49
Initial boiling point and range	°C	No data available
Flash point (COC)	°C	230
Flammability		Not flammable
Upper/lower flammability or explosive limits		Not applicable
Vapour pressure	kPa (0.1 mm Hg)	No data available
Relative density	kg/m ³	0.844 @ 20°C
Solubility - water		Insoluble
Partition coefficient n-octanol/water	Log Pow	Not applicable
Autoignition temperature		No data available
Decomposition temperature		No data available
Viscosity	mm ² /s	54.5 @ 40°C
	mm ² /s	9.8 @ 100°C
Evaporation rate		Not applicable
Vapour density		Not applicable
Explosive properties		Not applicable
Oxidising properties		None

9.2 Other Information None

SECTION 10 STABILITY AND REACTIVITY

10.1 Reactivity There are no known reactivity hazards associated with this product

10.2 Chemical stability Stable at normal ambient temperatures and when used as recommended

10.3 Possibility of hazardous reactions No potentially hazardous reactions known

10.4 Conditions to avoid Keep away from fire, sparks and heated surfaces.

10.5 Incompatible materials Incompatible with strong acids and oxidising agents.

10.6 Hazardous decomposition products No hazardous decomposition products are known.



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SECTION 11 TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Toxicity	Material can be aspirated into the lungs during the act of swallowing or vomiting. This could result in severe injury to the lungs and death. Not classified for acute toxicity based on available data.
Corrosivity/Irritation	Prolonged or repeated skin contact as from clothing wet with material may cause dermatitis. Symptoms may include redness, oedema, drying, and cracking of the skin. Prolonged or repeated contact may cause irritation. Remarks: Causes mild skin irritation.
Sensitisation	Not a skin sensitiser.
Repeated-dose Toxicity	Repeated-dose oral toxicity studies in rats using a component contained in this product revealed internal organ effects (i.e., liver and thyroid enlargement). These effects were considered adaptive and were reversible upon cessation of treatment. (Based on component information)
Mutagenicity	This material has not exhibited mutagenic or genotoxic potential in laboratory tests.
Carcinogenicity	This product contains mineral oils which are severely refined and not considered carcinogenic. All of the oils in this product have been demonstrated to contain less than 3% extractables by the IP 346 test.
Reproductive Toxicity	Contains Phenol, dodecyl-, branched – suspected of damaging fertility

SECTION 12 ECOLOGICAL INFORMATION

12.1 Toxicity	Fish Mineral oil Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated Reaction products of Benzeneamine, N-phenyl- with nonene (branched) Phenol, dodecyl-, branched Alcohols, C12-16, ethoxylated Aquatic Invertebrates Mineral oil Dec-1-ene, homopolymer, hydrogenated Dec-1-ene, oligomers, hydrogenated Reaction products of Benzeneamine, N-phenyl- with nonene (branched) Phenol, dodecyl-, branched Alcohols, C12-16, ethoxylated	LC 50 (Fathead Minnow, 4 d): > 100 mg/l LC 50 (Rainbow Trout, 4 h): > 1,000 mg/l LC 50 (Zebra Fish, 4 h): > 100 mg/l LC 50 (Fathead Minnow, 4 d): 40 mg/l LC 50 (Not reported, 96 h): > 1 - 10 mg/l EC 50 (Water flea (Daphnia magna), 2 d): > 10,000 mg/l EC 50 (Water flea (Daphnia magna), 21 d): > 10 mg/l NOEC (Water flea (Daphnia magna), 21 d): > 10 mg/l EC 50 (Water flea (Daphnia magna), 2 d): > 1,000 mg/l EC 50 (Water flea (Daphnia magna), 21 d): > 125 mg/l NOEC (Water flea (Daphnia magna), 21 d): 125 mg/l EC 50 (Water flea (Daphnia magna), 2 d): > 100 mg/l EC 50 (Water flea (Daphnia magna), 2 d): 0.037 mg/l EC 50 (Shrimp (Mysidopsis Bahia), 4 d): > 0.58 mg/l EC 50 (Water flea (Daphnia magna), 21 d): 0.0079 mg/l NOEC (Water flea (Daphnia magna), 21 d): 0.0037 mg/l EC 50 (Water flea (Daphnia), 48 h): > 0.1 - 1 mg/l NOEC (Water flea (Daphnia magna), 21 d): > 0.1 - 1 mg/l
12.2 Persistence and Degradability	Not readily degradable but inherently biodegradable	
12.3 Bioaccumulative Potential	Not expected to bioaccumulate	
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.	
12.5 Results of PBT and vPvB Assessment	No data available	
12.6 Other Adverse Effects	Information given is based on data on the components and the ecotoxicology of similar products.	



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SECTION 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.

SECTION 14 TRANSPORT INFORMATION

14.1 UN Number	Not Classified
14.2 UN Proper Shipping Name	-
14.3 Transport Hazard Class(es)	-
14.4 Packing Group	-
14.5 Environmental hazards	Environmentally hazardous substance/marine pollutant - No.
14.6 Special Precautions for User	-
14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	-

SECTION 15 REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture	EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended). Commission Regulation (EU) No 453/2010 of 20 May 2010. Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
15.2 Chemical Safety Assessment	No chemical safety assessment has been carried out

SECTION 16 OTHER INFORMATION

Second Issue September 2018

First Issue September 2016: Changed name

Full text of classification data in sections 2 and 3

Asp. Tox. 1; H304	May be fatal if swallowed and enters airways
Eye Dam. 1; H318	Causes serious eye damage
Eye Dam. 2; H319	Causes serious eye irritation
Repr. 2; H361f	Suspected of damaging fertility of the unborn child
Skin Corr. 2; H315	Causes skin irritation
Aquatic Acute 1; H400	Very toxic to aquatic life
Aquatic Chronic 1; H410	Very toxic to aquatic life with long lasting effects
Aquatic Chronic 3; H412	Harmful to aquatic life with long lasting effects
Aquatic Chronic 4; H413	May cause long lasting harmful effects to aquatic life