



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

SDS # : 32897

LHM PLUS

Date of the previous version: 2017-10-17

Revision Date: 2017-10-31

Version 5.04

Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name	LHM PLUS
Number	529
Substance/mixture	Mixture

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

Identified uses	Hydraulic oil, Brake fluid.
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1.3. Details of the supplier of the safety data sheet

Supplier	<p>A - TOTAL UK LIMITED 183 Eversholt St, Kings Cross London, NW1 1BU UNITED KINGDOM Tel: +44 (0)20 7339 8000 Fax: +44 (0)20 7339 8033</p> <p>B - TOTAL LUBRIFIANTS 562 Avenue du Parc de L'île 92029 Nanterre Cedex FRANCE Tél: +33 (0)1 41 35 40 00 Fax: +33 (0)1 41 35 84 71</p>
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For further information, please contact:

Contact Point	A - HSE
	B - HSE
E-mail Address	A - rm.gb-msds@total.co.uk
	B - rm.msds-lubs@total.com

1.4. Emergency telephone number

Emergency telephone: +44 1235 239670

UK: National Poisons Information Service (NPIS): NHS on 111 or a doctor

Section 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture



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REGULATION (EC) No 1272/2008

For the full text of the H-Statements mentioned in this Section, see Section 2.2.

Classification

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008

Aspiration toxicity - Category 1 - (H304)

Chronic aquatic toxicity - Category 3 - (H412)

2.2. Label elements

Labelled according to REGULATION (EC) No 1272/2008

Contains Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics, Distillates (petroleum), hydrotreated light paraffinic, Gas oils (petroleum), hydrodesulfurized



Signal word

DANGER

Hazard Statements

H304 - May be fatal if swallowed and enters airways

H412 - Harmful to aquatic life with long lasting effects

Precautionary statements

P101 - If medical advice is needed, have product container or label at hand

P102 - Keep out of reach of children

P273 - Avoid release to the environment

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor

P331 - Do NOT induce vomiting

P501 - Dispose of contents/ container to an approved waste disposal plant

2.3. Other hazards

Physical-Chemical Properties Contaminated surfaces will be extremely slippery.

Environmental properties The product may form an oil film on the water surface that may stop the oxygen exchange.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

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Chemical nature Mineral oil of petroleum origin.

Hazardous components

Chemical Name	EC-No	REACH Registration Number	CAS-No	Weight %	GHS Classification
Distillates (petroleum), hydrotreated light paraffinic	265-158-7	01-2119487077-29	64742-55-8	40-<50	Asp. Tox. 1 (H304)
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	934-954-2	01-2119826592-36	^	40-<50	Asp. Tox. 1 (H304)
Gas oils (petroleum), hydrodesulfurized	265-182-8	-	64742-79-6	5-<10	Acute Tox. 4 (H332) Skin Irrit. 2 (H315) Asp. Tox. 1 (H304) Aquatic Chronic 2 (H411)
2,6-di-tert-butylphenol	204-884-0	01-2119490822-33	128-39-2	0.25-<1	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Skin Irrit. 2 (H315) Acute M factor = 1
tris(methylphenyl) phosphate	215-548-8	01-2119531335-46	1330-78-5	0.1-<0.25	Repr. 2 (H361fd) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Acute M factor = 1 Chronic M factor = 1
Tetrapropenyl phenol	310-154-3	01-2119513207-49	121158-58-5	0.025-<0.1	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Eye Dam. 1 (H318) Repr. 1B (H360F) Skin Irrit. 1C (H314) Acute M factor = 10 Chronic M factor = 10
Naphthalene	202-049-5	-	91-20-3	<0.01	Acute Tox. 4 (H302) Carc. 2 (H351) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410) Acute M factor = 1

Additional information Product containing mineral oil with less than 3% DMSO extract as measured by IP 346.

For the full text of the H-Statements mentioned in this Section, see Section 16.

Section 4: FIRST AID MEASURES

4.1. Description of first aid measures

General advice

IN CASE OF SERIOUS OR PERSISTENT CONDITIONS, CALL A DOCTOR OR EMERGENCY MEDICAL CARE.***

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing.

Skin contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. High pressure jets may cause skin damage. Take victim immediately to hospital.

Inhalation

Remove casualty to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration.



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Ingestion	Clean mouth with water. Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control centre immediately. Do not ingest. If swallowed then seek immediate medical assistance.
Protection of first-aiders	First aider needs to protect himself. See Section 8 for more detail. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

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

Eye contact	Not classified based on available data.***
Skin contact	Not classified based on available data. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.***
Inhalation	Not classified based on available data. Inhalation of vapours in high concentration may cause irritation of respiratory system.***
Ingestion	May be fatal if swallowed and enters airways. If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours).***

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

Notes to physician	Treat symptomatically.
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Section 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO ₂). ABC powder. Foam. Water spray or fog.
Unsuitable Extinguishing Media	Do not use a solid water stream as it may scatter and spread fire.

5.2. Special hazards arising from the substance or mixture

Special hazard	Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. These may be highly dangerous if inhaled in confined spaces or at high concentration. Combustion products include sulphur oxides (SO ₂ and SO ₃) and Hydrogen sulphide H ₂ S. Mercaptans. Nitrogen oxides (NO _x). Phosphorous oxides.
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5.3. Precautions for fire-fighters

Special protective equipment for fire-fighters	Wear self-contained breathing apparatus and protective suit.***
Other information	Cool containers / tanks with water spray. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.



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Section 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

General Information Do not touch or walk through spilled material. Contaminated surfaces will be extremely slippery. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition.

6.2. Environmental precautions

General Information Do not allow material to contaminate ground water system. Prevent entry into waterways, sewers, basements or confined areas. Local authorities should be advised if significant spillages cannot be contained.

6.3. Methods and material for containment and cleaning up

Methods for containment Dike to collect large liquid spills. If necessary dike the product with dry earth, sand or similar non-combustible materials.

Methods for cleaning up Dispose of contents/container in accordance with local regulation. In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

6.4. Reference to other sections

Personal protective equipment See Section 8 for more detail.

Waste treatment See section 13.

Section 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advice on safe handling For personal protection see section 8. Use only in well-ventilated areas. Do not breathe vapours or spray mist. Avoid contact with skin, eyes and clothing.

Prevention of fire and explosion Take precautionary measures against static discharges. Ground/bond containers, tanks and transfer/receiving equipment.

Hygiene measures Ensure the application of strict rules of hygiene by the personnel exposed to the risk of contact with the product. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Provide regular cleaning of equipment, work area and clothing. Do not use abrasives, solvents or fuels. Do not dry hands with rags that have been contaminated with product. Do not put product contaminated rags into workwear pockets.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures/Storage conditions Keep away from food, drink and animal feedingstuffs. Keep in a banded area. Keep container tightly closed. Preferably keep in the original container. Otherwise, reproduce all



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the statutory information from the labels onto the new container. Do not remove the hazard labels of the containers (even if they are empty). Design the installations in order to avoid accidental emissions of product (due to seal breakage, for example) onto hot casings or electrical contacts. Store at room temperature. Protect from moisture.

Materials to avoid Strong oxidising agents.

7.3. Specific use(s)

Specific use(s) Please refer to Technical Data Sheet for further information.

Section 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. Control parametres

Exposure limits Mineral oil mist:
USA: OSHA (PEL) TWA 5 mg/m³, NIOSH (REL) TWA 5 mg/m³, STEL 10 mg/m³, ACGIH (TLV) TWA 5 mg/m³ (highly refined)
Components with workplace control parametres

Chemical Name	European Union	The United Kingdom	Ireland
Naphthalene 91-20-3	TWA 10 ppm TWA 50 mg/m ³		TWA 10 ppm TWA 50 mg/m ³ STEL 15 ppm STEL 75 mg/m ³

Legend See section 16

Derived No Effect Level (DNEL)

DNEL Worker (Industrial/Professional)

Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Distillates (petroleum), hydrotreated light paraffinic 64742-55-8				5.4 mg/m ³ /8h (aerosol - inhalation)
Gas oils (petroleum), hydrodesulfurized 64742-79-6	5000 mg/m ³ /15 min [aerosol]		2.9 mg/kg/8h (dermal) 16 mg/m ³ /8h (aerosol - inhalation)	
2,6-di-tert-butylphenol 128-39-2			2.77 mg/kg bw/day Dermal 19.6 mg/m ³ Inhalation	
tris(methylphenyl) phosphate 1330-78-5	1.11 mg/m ³ Inhalation 74 mg/kg/bw Dermal	16 mg/cm ² Dermal	0.47 mg/m ³ Inhalation 3.33 mg/kg/bw Dermal	
Tetrapropenyl phenol 121158-58-5	166 mg/kg bw/day Dermal 44.18 mg/m ³ Inhalation		0.25 mg/kg bw/day Dermal 1.7621 mg/m ³ Inhalation	
Naphthalene 91-20-3			25 mg/m ³ Inhalation 3.57 mg/kg Dermal	25 mg/m ³ Inhalation

DNEL Consumer

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Chemical Name	Short term, systemic effects	Short term, local effects	Long term, systemic effects	Long term, local effects
Distillates (petroleum), hydrotreated light paraffinic 64742-55-8				1.2 mg/m ³ /24h (aerosol - inhalation)
Gas oils (petroleum), hydrodesulfurized 64742-79-6	3000 mg/m ³ /15 min (aerosol - inhalation)		1.3 mg/kg/8h (dermal) 4.8 mg/m ³ /8h (aerosol - inhalation)	
2,6-di-tert-butylphenol 128-39-2			1.67 mg/kg bw/day Oral 5.8 mg/m ³ Inhalation	
tris(methylphenyl) phosphate 1330-78-5	37 mg/kg/bw Dermal 0.28 mg/m ³ Inhalation 157.5 mg/kg/bw Oral	8 mg/cm ² Dermal	1.67 mg/kg/bw Dermal 0.06 mg/m ³ Inhalation 0.03 mg/cm ² Oral	
Tetrapropenyl phenol 121158-58-5	50 mg/kg bw/day Dermal 13.26 mg/m ³ Inhalation 1.26 mg/kg bw/day Oral		0.075 mg/kg bw/day Dermal 0.79 mg/m ³ Inhalation 0.075 mg/kg bw/day Oral	

Predicted No Effect Concentration (PNEC)

Chemical Name	Water	Sediment	Soil	Air	STP	Oral
2,6-di-tert-butylphenol 128-39-2	0.00045 mg/l fw 0.000045 mg/l mw 0.0045 mg/l or	0.196 mg/kg dw fw 0.0196 mg/kg dw mw	0.0389 mg/kg dw		10 mg/l	
tris(methylphenyl) phosphate 1330-78-5	0.000146 mg/l fw 0.0000146 mg/l mw 0.00146 mg/l or	0.0404 mg/kg dw fw 0.00404 mg/kg dw mw	0.00000317 mg/kg dw		100 mg/l	0.67 mg/kg
Tetrapropenyl phenol 121158-58-5	0.000074 mg/l fw 0.0000074 mg/l mw 0.00037 mg/l or	0.226 mg/kg fw dw 0.0266 mg/kg mw dw	0.118 mg/kg dw		100 mg/l	4 mg/kg food
Naphthalene 91-20-3	0.0024 mg/l fw 0.0024 mg/l mw 0.020 mg/l or	0.0672 mg/kg dw fw 0.0672 mg/kg dw mw	0.0533 mg/kg dw		2.9 mg/l	

8.2. Exposure controls

Occupational Exposure Controls

Engineering measures

Apply technical measures to comply with the occupational exposure limits. Ensure adequate ventilation, especially in confined areas. When working in confined spaces (tanks, containers, etc.), ensure that there is a supply of air suitable for breathing and wear the recommended equipment.***

Personal protective equipment

General Information

Protective engineering solutions should be implemented and in use before personal protective equipment is considered. The personal protective equipment (PPE) recommendations apply to the product AS DELIVERED. In case of mixtures or



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formulations, it is suggested that you contact the relevant PPE suppliers.***

Respiratory protection	None under normal use conditions. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators. Respirator with combination filter for vapour/particulate (EN 14387). Type A/P2. Warning ! filters have a limited use duration. The use of breathing apparatus must comply strictly with the manufacturer's instructions and the regulations governing their choices and uses.
Eye protection	If splashes are likely to occur, wear: Safety glasses with side-shields. EN 166.
Skin and body protection	Wear suitable protective clothing. Protective shoes or boots. Long sleeved clothing. Type 4/6.
Hand protection	Hydrocarbon-proof gloves. Fluorinated rubber. Nitrile rubber. In case of prolonged contact with the product, it is recommended to wear gloves complying with EN 420 and EN 374 standards, protecting at least for 480 minutes and having a thickness of 0,38 mm at least. These values are indicative only. The level of protection is provided by the material of the glove, its technical characteristics, its resistance to the chemicals to be handled, the appropriateness of its use and its replacement frequency. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time.

Environmental exposure controls

General Information The product should not be allowed to enter drains, water courses or the soil.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance		Clear	
Colour		Fluorescent yellowish-green	
Physical state @20°C		liquid	
Odour		characteristic	
Odour Threshold		No information available	
Property	Values	Remarks	Method
pH		Not applicable	
Melting point/range		No information available	
Boiling point/boiling range		No information available	
Flash point	105 °C 221 °F		ASTM D 93 ASTM D 93
Evaporation rate		No information available	
Flammability Limits in Air			
Upper		No information available	
Lower		No information available	
Vapour pressure		No information available	



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Vapour density		No information available	
Relative density	0.842 - 0.852	@ 15 °C	ISO 12185
Density	842 - 852 kg/m ³	@ 15 °C	ISO 12185
Water solubility		Insoluble	
Solubility in other solvents		No information available	
logPow		No information available***	
Autoignition temperature		No information available	
Decomposition temperature		No information available	
Viscosity, kinematic	17 - 19 mm ² /s	@ 40 °C	ISO 3104
Explosive properties	Not explosive		
Oxidising properties	Not applicable		
Possibility of hazardous reactions	None under normal processing		

9.2. Other information

Freezing point No information available

Section 10: STABILITY AND REACTIVITY

10.1. Reactivity

General Information None under normal processing.

10.2. Chemical stability

Stability Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Hazardous reactions No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Conditions to avoid Keep away from open flames, hot surfaces and sources of ignition. Keep away from heat and sparks.

10.5. Incompatible materials

Materials to avoid Strong oxidising agents.

10.6. Hazardous Decomposition Products

Hazardous Decomposition Products Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot. Combustion products include sulphur oxides (SO₂ and SO₃) and Hydrogen sulphide H₂S. Mercaptans. Nitrogen oxides (NO_x). Phosphorous oxides.

Section 11: TOXICOLOGICAL INFORMATION



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11.1. Information on toxicological effectsAcute toxicity Local effects Product Information

- Skin contact** . Not classified based on available data. High pressure injection of the products under the skin may have very serious consequences even though no symptom or injury may be apparent.***
- Eye contact** . Not classified based on available data.***
- Inhalation** . Not classified based on available data. Inhalation of vapours in high concentration may cause irritation of respiratory system.***
- Ingestion** . May be fatal if swallowed and enters airways. If swallowed accidentally, the product may enter the lungs due to its low viscosity and lead to the rapid development of very serious pulmonary lesions (medical survey during 48 hours).***

ATEmix (inhalation-dust/mist) 10.20 mg/l

Acute toxicity - Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Distillates (petroleum), hydrotreated light paraffinic	LD50 > 5000 mg/kg bw (rat - OECD 420)	LD50 > 5000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5 mg/l (aerosol) (rat - OECD 403)
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics	LD50 > 5000 mg/kg bw (rat - OECD 401)	LD50 (24h) > 3160mg/kg bw (rabbit - OECD 402)	LC50 (4h) > 5266 mg/m ³ (aerosol) (rat - OECD 403)
Gas oils (petroleum), hydrodesulfurized	LD50 > 5000 mg/kg bw (rat - OECD 401)	LD50 > 2000 mg/kg bw (rabbit - OECD 402)	LC50 (4h) 4.6 mg/l (aerosol) (rat - OECD 403)
2,6-di-tert-butylphenol	> 5000 mg/kg (Rat)	LD50 > 2000 mg/kg (Rabbit)	
tris(methylphenyl) phosphate	DL50 3700 mg/kg (Rat)	LD50 10000 mg/kg (Rabbit)	LD50 11.1 mg/l
Tetrapropenyl phenol	LD50 2700 mg/kg (Rat)	LD50 > 3160 mg/kg (Rat)	
Naphthalene	LD50 490 mg/kg (Rat)	LD50 2201 mg/kg (Rat)	LD50 (8h) > 500 mg/m ³ (Rat)

Sensitisation

Sensitisation Not classified based on available data.***

Specific effects

Carcinogenicity Not classified based on available data.***

Chemical Name	European Union
Naphthalene 91-20-3	Carc. 2 (H351)

Mutagenicity Not classified based on available data.

Germ cell mutagenicity Not classified based on available data.

Reproductive toxicity Not classified based on available data. Contains toxic substance(s) listed as toxic to reproduction.

Chemical Name	European Union
tris(methylphenyl) phosphate 1330-78-5	Repr. 2 (H361fd)
Tetrapropenyl phenol	Repr. 1B (H360F)



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121 158-58-5

Repeated dose toxicity**Subchronic Toxicity** Not classified based on available data.**Target Organ Effects (STOT)****Target Organ Effects (STOT)** Not classified based on available data.*****Specific target organ systemic toxicity (single exposure)** Not classified based on available data.**Specific target organ toxicity - repeated exposure** Not classified based on available data.**Aspiration toxicity** May be fatal if swallowed and enters airways. The fluid can enter the lungs and cause damage (chemical pneumonitis, potentially fatal).**Other information****Other adverse effects** Characteristic skin lesions (oil blisters) may develop following prolonged and repeated exposures (contact with contaminated clothing).**Section 12: ECOLOGICAL INFORMATION****12.1. Toxicity**

Harmful to aquatic life with long lasting effects.

Acute aquatic toxicity - Product Information***

No information available.

Acute aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated light paraffinic 64742-55-8	EL50 (48h) > 100 mg (Pseudokirchnerella subcapitata - OECD 201)	EL50 (48h) > 10000 mg/l (Daphnia magna - OECD 202)	LL50 (96h) > 100 mg/l (Oncorhynchus mykiss - OECD 203)	
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics ^	ErL50 (72h) > 10000 mg/l (Skeletonema costatum - ISO 10253)	LL50 (48h) > 3193 mg/l (Acartia tonsa - ISO 14669)	LL50 (96h) > 1028 mg/l (Scophthalmus maximus - OECD 203)	
Gas oils (petroleum), hydrodesulfurized 64742-79-6		EL50 (48h) 7.385 mg/l (Daphnia magna - QSAR Petrotox)	LL50 (96h) 21 mg/l (Oncorhynchus mykiss - OECD 203)	
2,6-di-tert-butylphenol 128-39-2	EC50 (72h) 1.2 mg/l	EC50 (48h) = 0.45 mg/L Daphnia magna	LC50(96h) 1 mg/l (fish)	
tris(methylphenyl) phosphate 1330-78-5	EC50 (72h) 0.4 mg/l Desmodesmus subspicatus	LC50 (48h) 0.14 mg/l Daphnia magna	LC50 (96h) 0.6 mg/l	
Tetrapropenyl phenol	EbC50 (72h) 0.15 mg/l	EC50(48h) 0.037 mg/l	EL50(96h) 40 mg/l	



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121158-58-5	(Scenedesmus subspicatus - OECD 201)	(Daphnia magna - static - OECD 202)	Pimephales promelas semi-static (OECD 203)	
Naphthalene 91-20-3		LC50 (48h) = 2.16 mg/L Daphnia magna EC50 (48h) = 1.96 mg/L Daphnia magna Flow through EC50 (48h) 1.09 - 3.4 mg/L Daphnia magna Static	LC50 (96h) = 1.6 mg/L Oncorhynchus mykiss (flow-through) LC50 (96h) 5.74-6.44 mg/L Pimephales promelas (flow-through) LC50 (96h) 0.91-2.82 mg/L Oncorhynchus mykiss (static) LC50 (96h) = 1.99 mg/L Pimephales promelas (static) LC50 (96h) = 31.0265 mg/L Lepomis macrochirus (static)	EC50 = 0.93 mg/L 30 min EC50 > 20 mg/L 18 h

Chronic aquatic toxicity - Product Information

No information available.

Chronic aquatic toxicity - Component Information

Chemical Name	Toxicity to algae	Toxicity to daphnia and other aquatic invertebrates.	Toxicity to fish	Toxicity to microorganisms
Distillates (petroleum), hydrotreated light paraffinic 64742-55-8		NOEL (21d) 10 mg/l (Daphnia magna - OECD 211)	NOEL (14/21d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
Hydrocarbons, C13-C16, n-alkanes, isoalkanes, cyclics, < 0.03% aromatics ^		NOELR (21d) > 1000 mg/l (Daphnia magna - QSAR Petrotox)	NOELR (28d) > 1000 mg/l (Oncorhynchus mykiss - QSAR Petrotox)	
Gas oils (petroleum), hydrodesulfurized 64742-79-6		NOEL (21d) 0.163 mg/l (Daphnia magna - QSAR Petrotox)		
2,6-di-tert-butylphenol 128-39-2			NOEC (28d) 0.3 mg/l (fish)	
tris(methylphenyl) phosphate 1330-78-5			NOEC (28d) 0.01 mg/l Oncorhynchus mykiss	
Tetrapropenyl phenol 121158-58-5		NOEC(21d) 0.0037 mg/l (Daphnia magna - semi-static - OECD 211)		

Effects on terrestrial organisms

No information available.***

12.2. Persistence and Degradability**General Information**

No information available.

12.3. Bioaccumulative potential**Product Information**

No information available.***

logPow

No information available***



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Component Information ***

Chemical Name	log Pow
2,6-di-tert-butylphenol - 128-39-2	4.48
tris(methylphenyl) phosphate - 1330-78-5	5.93
Tetrapropenyl phenol - 121158-58-5	7.14
Naphthalene - 91-20-3	3.3

12.4. Mobility in soil

Soil	Given its physical and chemical characteristics, the product generally shows low soil mobility.***
Air	Loss by evaporation is limited.***
Water	The product is insoluble and floats on water.***

12.5. Results of PBT and vPvB assessment**PBT and vPvB assessment** No information available.12.6. Other adverse effects**General Information** No information available.***

Section 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues / unused products	Should not be released into the environment. Do not empty into drains. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. Where possible recycling is preferred to disposal or incineration.
Contaminated packaging	Empty containers should be taken to an approved waste handling site for recycling or disposal.***
EWC Waste Disposal No	According to the European Waste Catalogue, Waste Codes are not product specific, but application specific. Waste codes should be assigned by the user based on the application for which the product was used. The following Waste Codes are only suggestions: 13 01 10.
Other information	Refer to section 8 for safety and protective measures for disposal personnel.

Section 14: TRANSPORT INFORMATION

ADR/RID not regulatedIMDG/IMO not regulated



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ICAO/IATA not regulatedADN

UN/ID No	ID9006
Hazard Class	9
Hazard Labels	none
Description	ID9006, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9 (Gas oils (petroleum), hydrodesulfurized)
Equipment Requirements	PP

Section 15: REGULATORY INFORMATION

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

European Union

Further information

No information available***

15.2. Chemical Safety Assessment**Chemical Safety Assessment** No information available15.3. National regulatory information**The United Kingdom**

- Avoid exceeding occupational exposure limits (see section 8).

Ireland

- Avoid exceeding occupational exposure limits (see section 8).

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed
 H304 - May be fatal if swallowed and enters airways
 H314 - Causes severe skin burns and eye damage
 H315 - Causes skin irritation
 H318 - Causes serious eye damage
 H332 - Harmful if inhaled
 H351 - Suspected of causing cancer
 H360F - May damage fertility



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H361fd - Suspected of damaging fertility. Suspected of damaging the unborn child

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

H411 - Toxic to aquatic life with long lasting effects

Abbreviations, acronyms

ACGIH = American Conference of Governmental Industrial Hygienists

bw = body weight

bw/day = body weight/day

EC x = Effect Concentration associated with x% response

GLP = Good Laboratory Practice

IARC = International Agency for Research of Cancer

LC50 = 50% Lethal concentration - Concentration of a chemical in air or a chemical in water which causes the death of 50% (one half) of a group of test animals

LD50 = 50% Lethal Dose - Chemical amount, given at once, which causes the death of 50% (one half) of a group of test animals

LL = Lethal Loading

NIOSH = National Institute of Occupational Safety and Health

NOAEL = No Observed Adverse Effect Level

NOEC = No Observed Effect Concentration

NOEL = No Observed Effect Level

OECD = Organization for Economic Co-operation and Development

OSHA = Occupational Safety and Health Administration

UVCB = Substance of unknown or Variable composition, Complex reaction products or Biological material

DNEL = Derived No Effect Level

PNEC = Predicted No Effect Concentration

dw = dry weight

fw = fresh water

mw = marine water

or = occasional release

Legend Section 8

TWA: Time Weight Average

STEL: Short Time Exposure Limit

+ Sensitiser

** Hazard Designation

M: Mutagen

*

C:

R:

Skin designation

Carcinogen

Toxic to reproduction

Revision Date: 2017-10-31

Revision Note: *** Indicates updated section. & 1.***

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

This safety data sheet serves to complete but not to replace the technical product sheets. The information contained herein is given in good faith and is accurate to the best of knowledge at the date indicated above. It is understood by the user that any use of the product for purposes other than those for which it was designed entails potential risk. The information given herein in no way dispenses the user from knowing and applying all provisions regulating his activity. The user bears sole liability for the precautions required when using the product. The regulatory texts indicated herein are intended to aid the user to fulfil his obligations. This list is not to be considered complete and exhaustive. It is the user's responsibility to ensure that he is subject to no other obligations than those mentioned.

End of Safety Data Sheet