

Product Name: MOBILTHERM 603 Revision Date: 21 Sep 2017 Page 1 of 24

SAFETY DATA SHEET

SECTION 1

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

As of the revision date above, this SDS meets the regulations in the United Kingdom & Ireland.

1.1. PRODUCT IDENTIFIER

Product Name:MOBILTHERM 603Product Description:Severely Treated Base OilsProduct Code:201560802010, 680512-60

Registration Name:

Distillates (petroleum), solvent-dewaxed heavy paraffinic Distillates (petroleum), hydrotreated heavy paraffinic

Identification Number: (CAS #)64742-65-0; (CAS #)64742-54-7

Registration Number:

01-2119471299-27 01-2119484627-25

1.2. RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST Intended Use: Heat transfer

Identified Uses:

Lubricants - Industrial Lubricants - Professional (Low Release) Lubricants - Professional (High Release) Lubricants - Consumer (Low Release) Lubricants - Consumer (High Release)

See Section 16 for list of REACH Use Descriptors for Identified Uses shown above.

Uses advised against: This product is not recommended for any industrial, professional or consumer use other than the Identified Uses above.

1.3. DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Supplier:

EXXONMOBIL MARINE LIMITED ERMYN HOUSE MAILPOINT 31, ERMYN WAY KT22 8UX LEATHERHEAD United Kingdom

Supplier General Contact: E-Mail: (UK) (+44) (0) 1372 222 000 sds.uk@exxonmobil.com



1.4. EMERGENCY TELEPHONE NUMBER 24 Hour Emergency Telephone:

(UK) (+44) (0) 23 8089 1558

SECTION 2

HAZARDS IDENTIFICATION

2.1. CLASSIFICATION OF SUBSTANCE OR MIXTURE

Classification according to Regulation (EC) No 1272/2008 Aspiration toxicant: Category 1. H304: May be fatal if swallowed and enters airways.

2.2. LABEL ELEMENTS

Label elements according to Regulation (EC) No 1272/2008

Pictograms:



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.
P405: Store locked up.
P501: Dispose of contents and container in accordance with local regulations.

Contains: Distillates (petroleum), solvent-dewaxed heavy paraffinic

2.3. OTHER HAZARDS

Physical / Chemical Hazards:

No significant hazards.

Health Hazards:

Excessive exposure may result in eye, skin, or respiratory irritation.

Environmental Hazards:



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No significant hazards. Material does not meet the criteria for PBT or vPvB in accordance with REACH Annex XIII.

SECTION 3

COMPOSITION / INFORMATION ON INGREDIENTS

3.1. SUBSTANCES

This material is defined as a substance. This SDS covers materials that have different CAS#. The composition is 100% of one of the CAS# in the Reportable Hazardous Substance(s) or Complex Substance(s) table.

Reportable hazardous substance(s) complying with the classification criteria and/or with an exposure limit (OEL)

Name	CAS#	EC#	Registration#	Concentration	GHS/CLP
			-	*	classification
Distillates (petroleum), hydrotreated heavy paraffinic	64742-54-7	265-157-1	01-2119484627-25	100%	Asp. Tox. 1 H304
Distillates (petroleum), solvent-dewaxed	64742-65-0	265-169-7	01-2119471299-27	100%	Asp. Tox. 1 H304
heavy paraffinic					

Note - any classification in brackets is a GHS building block that was not adopted by the EU in the CLP regulation (No 1272/2008) and therefore is not applicable in the EU or in non-EU countries which have implemented the CLP regulation and is shown for informational purposes only.

Note: See SDS Section 16 for full text of hazard statements.

3.2. MIXTURES Not Applicable. This product is regulated as a substance.

SECTION 4

FIRST AID MEASURES

4.1. DESCRIPTION OF FIRST AID MEASURES

INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek if breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT

Wash contact areas with soap and water.

EYE CONTACT

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION

Seek immediate medical attention. Do not induce vomiting.

4.2. MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED



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No important symptoms or effects.

4.3. INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

SECTION 5

FIRE FIGHTING MEASURES

5.1. EXTINGUISHING MEDIA

Suitable Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Unsuitable Extinguishing Media: Straight streams of water

5.2. SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

Hazardous Combustion Products: Aldehydes, Incomplete combustion products, Oxides of carbon, Smoke, Fume, Sulphur oxides

5.3. ADVICE FOR FIRE FIGHTERS

Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

FLAMMABILITY PROPERTIES

Flash Point [Method]: >194°C (381°F) [ASTM D-92] Upper/Lower Flammable Limits (Approximate volume % in air): UEL: 7.0 LEL: 0.9 [Estimated] Autoignition Temperature: No data available

SECTION 6

ACCIDENTAL RELEASE MEASURES

6.1. PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required, due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for



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emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

6.2. ENVIRONMENTAL PRECAUTIONS

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

6.3. METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP

Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

6.4. REFERENCES TO OTHER SECTIONS

See Sections 8 and 13.

SECTION 7

HANDLING AND STORAGE

7.1. PRECAUTIONS FOR SAFE HANDLING

Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or earthing procedures. However, bonding and earthing may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator.

7.2. CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

The type of container used to store the material may affect static accumulation and dissipation. Do not store in open or unlabelled containers.

7.3. SPECIFIC END USES

Section 1 informs about identified end-uses. No industrial or sector specific guidance available.

SECTION 8

EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1. CONTROL PARAMETERS

EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)



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Substance Name	Form	Limit/Sta	ndard	Note	Source
Distillates (petroleum), hydrotreated heavy paraffinic	Mist.	TWA	5 mg/m3		ACGIH
Distillates (petroleum), solvent- dewaxed heavy paraffinic	Mist.	TWA	5 mg/m3		ACGIH

Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur the following is recommended: 5 mg/m³ - ACGIH TLV (inhalable fraction).

Note: Information about recommended monitoring procedures can be obtained from the relevant agency(ies)/institute(s):

UK

Health and Safety Executive (HSE)

DERIVED NO EFFECT LEVEL (DNEL)/DERIVED MINIMAL EFFECT LEVEL (DMEL)

Worker	
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Substance Name	Dermal	Inhalation
Distillates (petroleum), hydrotreated	NA	5.4 mg/m3 DNEL, Chronic
heavy paraffinic		Exposure, Local Effects
Distillates (petroleum), solvent-	NA	5.4 mg/m3 DNEL, Chronic
dewaxed heavy paraffinic		Exposure, Local Effects

Consumer

Substance Name	Dermal	Inhalation	Oral
Distillates (petroleum), hydrotreated	NA	1.2 mg/m3 DNEL, Chronic	NA
heavy paraffinic		Exposure, Local Effects	
Distillates (petroleum), solvent-	NA	1.2 mg/m3 DNEL, Chronic	NA
dewaxed heavy paraffinic		Exposure, Local Effects	

Note: The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

PREDICTED NO EFFECT CONCENTRATION (PNEC)

Substance Name	Aqua (fresh water)	Aqua (marine water)	Aqua (intermittent release)	Sewage treatment plant	Sediment	 Oral (secondary poisoning)
Distillates (petroleum), hydrotreated heavy	NA	NA	NA	NA	NA	9.33 mg / kg (food)



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paraffinic						
Distillates (petroleum), solvent- dewaxed heavy paraffinic	NA	NA	NA	NA	NA	9.33 mg / kg (food)

8.2. EXPOSURE CONTROLS

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.



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For Summary of Risk Management Measures across all identified uses, see Annex.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

9.1. INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Liquid Colour: Pale Yellow Odour: Characteristic **Odour Threshold:** No data available Not technically feasible pH: Not technically feasible Melting Point: Freezing Point: No data available Initial Boiling Point / and Boiling Range: > 316°C (600°F) [Estimated] Flash Point [Method]: >194°C (381°F) [ASTM D-92] Evaporation Rate (n-butyl acetate = 1): No data available Flammability (Solid, Gas): Not technically feasible Upper/Lower Flammable Limits (Approximate volume % in air): UEL: 7.0 LEL: 0.9 [Estimated] Vapour Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C [Estimated] Vapour Density (Air = 1): > 2 at 101 kPa [Estimated] **Relative Density:** 0.9 [ASTM D1298] Solubility(ies): water Negligible Partition coefficient (n-Octanol/Water Partition Coefficient): > 3.5 [Estimated] Autoignition Temperature: No data available Decomposition Temperature: No data available 19.8 cSt (19.8 mm2/sec) at 40°C | 4.1 cSt (4.1 mm2/sec) at 100°C Viscosity: [ASTM D 445] Explosive Properties: None Oxidizing Properties: None

9.2. OTHER INFORMATION

Pour Point: -18°C (0°F) [ASTM D97] DMSO Extract (mineral oil only), IP-346: < 3 %wt



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10.1. REACTIVITY: See sub-sections below.

10.2. CHEMICAL STABILITY: Material is stable under normal conditions.

10.3. POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

10.4. CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

10.5. INCOMPATIBLE MATERIALS: Strong oxidisers

10.6. HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

SECTION 11 TOXICOLOGICAL INFORMATION

11.1. INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: (Rat) 4 hour(s) LC50 > 5000 mg/m3 (Aerosol) Test scores or other study results do not meet criteria for classification.	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 403
Irritation: No end point data for material.	Negligible hazard at ambient/normal handling temperatures.
Ingestion	
Acute Toxicity (Rat): LD50 > 5000 mg/kg Test scores or other study results do not meet criteria for classification.	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 401
Skin	
Acute Toxicity (Rabbit): LD50 > 5000 mg/kg Test scores or other study results do not meet criteria for classification.	Minimally Toxic. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 402
Skin Corrosion/Irritation (Rabbit): Data available. Test scores or other study results do not meet criteria for classification.	Negligible irritation to skin at ambient temperatures. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 404
Eye	
Serious Eye Damage/Irritation (Rabbit): Data available. Test scores or other study results do not meet criteria for classification.	May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 405
Sensitisation	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: Data available. Test scores or other study results do not meet criteria for classification.	Not expected to be a skin sensitizer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 406
Aspiration: Data available.	May be fatal if swallowed and enters airways. Based on physico- chemical properties of the material.
Germ Cell Mutagenicity: Data available. Test scores or other study results do not meet criteria for classification.	Not expected to be a germ cell mutagen. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 471 473 474 476
Carcinogenicity: Data available. Test scores or other study results do not meet criteria for classification.	Not expected to cause cancer. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 451 453
Reproductive Toxicity: Data available.	Not expected to be a reproductive toxicant. Based on test data for



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Test scores or other study results do not	structurally similar materials. Test(s) equivalent or similar to OECD
meet criteria for classification.	Guideline 414 421
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for	Not expected to cause organ damage from a single exposure.
material.	
Repeated Exposure: Data available. Test	Not expected to cause organ damage from prolonged or repeated
scores or other study results do not meet	exposure. Based on test data for structurally similar materials.
criteria for classification.	Test(s) equivalent or similar to OECD Guideline 408 410 411
	412 453

OTHER INFORMATION

For the product itself:

Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitising in test animals.

SECTION 12

ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

12.1. TOXICITY

Material -- Not expected to be harmful to aquatic organisms.

12.2. PERSISTENCE AND DEGRADABILITY

Biodegradation:

Material -- Expected to be inherently biodegradable

12.3. BIOACCUMULATIVE POTENTIAL

Material -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

12.4. MOBILITY IN SOIL

Material -- Low solubility and floats and is expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

Material -- Low potential to migrate through soil.

12.5. PERSISTENCE, BIOACCUMULATION AND TOXICITY FOR SUBSTANCE(S)

This product is not, or does not contain, a substance that is a PBT or a vPvB.

12.6. OTHER ADVERSE EFFECTS

No adverse effects are expected.



ECOLOGICAL DATA

Ecotoxicity

Test	Duration	Organism Type	Test Results
Aquatic - Acute Toxicity	48 hour(s)	Daphnia magna	EL0 1000 - 10000 mg/l: data for similar materials
Aquatic - Acute Toxicity	96 hour(s)	Pimephales promelas	LL0 100 mg/l: data for similar materials
Aquatic - Acute Toxicity	72 hour(s)	Pseudokirchneriella subcapitata	EL0 100 mg/l: data for similar materials
Aquatic - Chronic Toxicity	21 day(s)	Daphnia magna	NOELR 10 - 1000 mg/l: data for similar materials
Aquatic - Chronic Toxicity	72 hour(s)	Pseudokirchneriella subcapitata	NOELR 100 mg/l: data for similar materials

Persistence, Degradability and Bioaccumulation Potential

Media	Test Type	Duration	Test Results: Basis
Water	Ready Biodegradability	28 day(s)	Percent Degraded < 60 : similar
			material

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

13.1. WASTE TREATMENT METHODS

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

REGULATORY DISPOSAL INFORMATION

European Waste Code: 13 03 07*

NOTE: These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the proper waste disposal code(s).

This material is considered as hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be



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taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

LAND (ADR/RID): 14.1-14.6 Not Regulated for Land Transport

INLAND WATERWAYS (ADNR/ADN): 14.1-14.6 Not Regulated for Inland Waterways Transport

SEA (IMDG): 14.1-14.6 Not Regulated for Sea Transport according to IMDG-Code

SEA (MARPOL 73/78 Convention - Annex II):

- 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not classified according to Annex II
- AIR (IATA): 14.1-14.6 Not Regulated for Air Transport

SECTION 15 REGULATORY INFORMATION

REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories: AICS, DSL, ENCS, IECSC, KECI, PICCS, TSCA

15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE

Applicable EU Directives and Regulations:

1907/2006 [... on the Registration, Evaluation, Authorisation and Restriction of Chemicals ... and amendments thereto] 1272/2008 [on classification, labelling and packaging of substances and mixtures.. and amendments thereto]

15.2. CHEMICAL SAFETY ASSESSMENT



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REACH Information: A Chemical Safety Assessment has been carried out for one or more substances present in the material.

SECTION 16

OTHER INFORMATION

IDENTIFIED USES:

Lubricants - Industrial (PROC1, PROC10, PROC13, PROC17, PROC18, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9, SU3) Lubricants - Professional (Low Release) (PROC1, PROC10, PROC11, PROC13, PROC17, PROC18, PROC2, PROC20, PROC3, PROC4, PROC8a, PROC8b, PROC9, SU22) Lubricants - Professional (High Release) (PROC1, PROC10, PROC11, PROC13, PROC17, PROC18, PROC2, PROC20, PROC3, PROC4, PROC8a, PROC8b, PROC9, SU22) Lubricants - Consumer (Low Release) (PC01,PC24,PC31, SU21) Lubricants - Consumer (Ligh Release) (PC01,PC24,PC31, SU21)

Lubricants - Consumer (High Release) (PC01,PC24,PC31, SU21)

REFERENCES: Sources of information used in preparing this SDS included one or more of the following: results from in house or supplier toxicology studies, CONCAWE Product Dossiers, publications from other trade associations, such as the EU Hydrocarbon Solvents REACH Consortium, U.S. HPV Program Robust Summaries, the EU IUCLID Data Base, U.S. NTP publications, and other sources, as appropriate.

List of abbrevia	tions and acronyms that could be (but not necessarily are) used in this safety data sheet:
Acronym	Full text
N/A	Not applicable
N/D	Not determined
NE	Not established
VOC	Volatile Organic Compound
AICS	Australian Inventory of Chemical Substances
AIHA WEEL	American Industrial Hygiene Association Workplace Environmental Exposure Limits
ASTM	ASTM International, originally known as the American Society for Testing and Materials (ASTM)
DSL	Domestic Substance List (Canada)
EINECS	European Inventory of Existing Commercial Substances
ELINCS	European List of Notified Chemical Substances
ENCS	Existing and new Chemical Substances (Japanese inventory)
IECSC	Inventory of Existing Chemical Substances in China
KECI	Korean Existing Chemicals Inventory
NDSL	Non-Domestic Substances List (Canada)
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances
TLV	Threshold Limit Value (American Conference of Governmental Industrial Hygienists)
TSCA	Toxic Substances Control Act (U.S. inventory)
UVCB	Substances of Unknown or Variable composition, Complex reaction products or Biological materials
LC	Lethal Concentration
LD	Lethal Dose
LL	Lethal Loading
EC	Effective Concentration
EL	Effective Loading
NOEC	No Observable Effect Concentration
NOELR	No Observable Effect Loading Rate



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KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only): Asp. Tox. 1 H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

Section 01: Company Emergency Contact information was modified.

The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief, accurate and reliable as of the date issued. You can contact ExxonMobil to insure that this document is the most current available from ExxonMobil. The information and recommendations are offered for the user's consideration and examination. It is the user's responsibility to satisfy itself that the product is suitable for the intended use. If buyer repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alteration of this document is strictly prohibited. Except to the extent required by law, republication or retransmission of this document, in whole or in part, is not permitted. The term, "ExxonMobil" is used for convenience, and may include any one or more of ExxonMobil Chemical Company, Exxon Mobil Corporation, or any affiliates in which they directly or indirectly hold any interest.

	Use Only 2A, 0B, 0, 0, 0, 0	PPEC:	A
DGN:	2011270QGB (548419)		

ANNEX				
Annex not required for this material.				
Section 1 Exposure Scenario Title				
Title:				
Lubricants - Industrial				
Use Descriptor				
Sector(s) of Use	SU3			
Process Categories	PROC1, PROC10, PROC13, PROC17, PROC18, PROC2, PROC3, PROC4, PROC7, PROC8a, PROC8b, PROC9			
Environmental Release Categories	ERC4, ERC7			
Specific Environmental Release Category				
Processes, tasks, activities covered				
Covers the use of formulated lubricants in closed and open systems including transfer operations, operation of machinery/engines and similar articles, reworking on reject articles, equipment maintenance and disposal of wastes.				
Section 2 Operational conditions and risk management measures				
Section 2.1 Control of worker exposure				
Product Characteristic				
Liquid				
Duration, frequency and amount				



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Covers daily exposures up to 8 hours (unless stated differently)[G2]				
Covers percentage substance in the product up to 100 %[G13]				
Other given operational conditions affecting workers exposure				
Assumes a good basic standard of occupational hygiene is implemented [G1]				
Contributing Scenarios/				
Specific Risk Management Measures and Operating Conditions				
(only required controls to demonstrate safe use listed)				
General measures (Aspiration Hazard)				
The H304 risk phrase (May be fatal if swallowed and enters airways) relates to potential for aspiration, a non-				
quantifiable hazard determined by physico-chemical properties (i.e. viscosity) that can occur during ingestion and also				
if it is vomited following ingestion. A DNEL cannot be derived. Risks from the physicochemical hazards of substances				
can be controlled by implementing risk management measures. For substances classified as H304, the following				
measures need to be implemented to control the aspiration hazard.				
Do not ingest. If swallowed then seek immediate medical attention. Do NOT induce vomiting. Section 2.2 Control of environmental exposure				
Product characteristics				
Not applicable				
Duration, frequency and amount				
Not applicable				
Environmental factors not influenced by risk management				
Not applicable				
Other given operational conditions affecting environmental exposure				
Not applicable				
Technical conditions and measures at process level (source) to prevent release				
Not applicable				
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil				
Not applicable				
Organisation measures to prevent/limit release from site				
Not applicable				
Conditions and measures related to municipal sewage treatment plant				
Not applicable				
Conditions and measures related to external treatment of waste for disposal				
Not applicable				
Conditions and measures related to external recovery of waste				
Not applicable				
Section 3 Exposure Estimation				
3.1. Health				
Not applicable				
3.2. Environment				
Not applicable				
Section 4 Guidance to check compliance with the Exposure Scenario				
4.1. Health				
Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]				
Risk Management Measures are based on qualitative risk characterisation. [G37]				
4.2. Environment				
Not applicable				



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Section 1 Exposure Scenario Title Title: Lubricants - Professional (Low Release) Use Descriptor Sector(s) of Use Process Categories				
Use Descriptor Sector(s) of Use				
Use Descriptor Sector(s) of Use				
Sector(s) of Use				
	SU22			
	PROC1, PROC10, PROC11, PROC13, PROC17,			
	PROC18, PROC2, PROC20, PROC3, PROC4, PROC8a,			
	PROC8b, PROC9			
Environmental Release Categories	ERC9A, ERC9B			
Specific Environmental Release Category				
Processes, tasks, activities covered				
	systems including transfer operations, operation of engines			
and similar articles, reworking on reject articles, equipment				
Section 2 Operational conditions and risk manageme	nt measures			
Section 2.1 Control of worker exposure				
Product Characteristic				
Liquid				
Duration, frequency and amount				
Covers daily exposures up to 8 hours (unless stated different	ntlv)[G2]			
Covers percentage substance in the product up to 100 %[0				
Other given operational conditions affecting workers e				
Assumes a good basic standard of occupational hygiene is				
Contributing Scenarios/				
Specific Risk Management Measures and Operating Co	onditions			
(only required controls to demonstrate safe use listed)				
General measures (Aspiration Hazard)				
The H304 risk phrase (May be fatal if swallowed and enters	s airways) relates to potential for aspiration, a non-			
	rties (i.e. viscosity) that can occur during ingestion and also			
	ed. Risks from the physicochemical hazards of substances			
can be controlled by implementing risk management measured	ures. For substances classified as H304, the following			
measures need to be implemented to control the aspiration	hazard.			
Do not ingest. If swallowed then seek immediate medical	attention. Do NOT induce vomiting.			
Section 2.2 Control of environmental exposure				
Product characteristics				
Not applicable				
Duration, frequency and amount				
Not applicable				
Environmental factors not influenced by risk management				
Not applicable				
Other given operational conditions affecting environme	ental exposure			
Not applicable	•			
Technical conditions and measures at process level (source) to prevent release				
Not applicable				
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil				
Not applicable				
Organisation measures to prevent/limit release from site				
Not applicable				
Conditions and measures related to municipal sewage treatment plant				
Not applicable				



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Conditions and measures related to external tractment of works for dispacel		
Conditions and measures related to external treatment of waste for disposal		
Not applicable		
Conditions and measures related to external recovery of waste		
Not applicable		
Section 3 Exposure Estimation		
3.1. Health		
Not applicable		
3.2. Environment		
Not applicable		
Section 4 Guidance to check compliance with the Exposure Scenario		
4.1. Health		
Available hazard data do not support the need for a DNEL to be established for other health effects.[G36]		
Risk Management Measures are based on qualitative risk characterisation. [G37]		
4.2. Environment		
Not applicable		



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Section 1 Exposure Scenario Title				
Title:				
Lubricants - Professional (High Release)				
Use Descriptor				
Sector(s) of Use	SU22			
Process Categories	PROC1, PROC10, PROC11, PROC13, PROC17,			
Frocess Calegories	PROC18, PROC2, PROC20, PROC3, PROC4, PROC8a,			
	PROC8b, PROC9			
Environmental Belease Categories	ERC8A, ERC8D			
Environmental Release Categories				
Specific Environmental Release Category				
Processes, tasks, activities covered				
Covers the use of formulated lubricants in closed and open systems including transfer operations, operation of engines				
and similar articles, reworking on reject articles, equipment				
Section 2 Operational conditions and risk management	nt measures			
Section 2.1 Control of worker exposure				
Product Characteristic				
Liquid				
Duration, frequency and amount				
Covers daily exposures up to 8 hours (unless stated differe				
Covers percentage substance in the product up to 100 %[G				
Other given operational conditions affecting workers ex	xposure			
Assumes a good basic standard of occupational hygiene is	implemented [G1]			
Contributing Scenarios/				
Specific Risk Management Measures and Operating Co	nditions			
(only required controls to demonstrate safe use listed)				
General measures (Aspiration Hazard)				
The H304 risk phrase (May be fatal if swallowed and enters	airways) relates to potential for aspiration, a non-			
quantifiable hazard determined by physico-chemical proper				
	ed. Risks from the physicochemical hazards of substances			
can be controlled by implementing risk management measure	ures. For substances classified as H304, the following			
measures need to be implemented to control the aspiration				
Do not ingest. If swallowed then seek immediate medical				
Section 2.2 Control of environmental exposure	Ť			
Product characteristics				
Not applicable				
Duration, frequency and amount				
Not applicable				
Environmental factors not influenced by risk management				
Not applicable				
Other given operational conditions affecting environme	ontal oxposuro			
Not applicable				
• •				
Technical conditions and measures at process level (source) to prevent release				
Not applicable				
Technical onsite conditions and measures to reduce or limit discharges, air emissions and releases to soil				
Not applicable				
Organisation measures to prevent/limit release from site				
Not applicable				
Conditions and measures related to municipal sewage	treatment plant			
Not applicable				



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Protion 4 Exposure Cooperin Title					
Section 1 Exposure Scenario Title					
Title:					
Lubricants - Consumer (Low Release)					
Use Descriptor Sector(s) of Use	SU21				
Product Categories	PC01, PC24, PC31				
Environmental Release Categories	ERC9A, ERC9B				
Specific Environmental Release Category					
Processes, tasks, activities covered					
Covers the consumer use of formulated lubricants in closed and open systems including transfer operations,					
application, operation of engines and similar articles, equipment maintenance and disposal of waste oil.					
Section 2 Operational conditions and risk management measures					
Section 2.1 Control of consumer exposure					
Product Characteristic					
Liquid					
Duration, frequency and amount					
Not applicable					
Other given operational conditions affecting consumer	exposure				
	se (May be fatal if swallowed and enters airways) relates to				
potential for aspiration, a non-quantifiable hazard determin					
occur during ingestion and also if it is vomited following ing					
physicochemical hazards of substances can be controlled					
substances classified as H304, the following measures nee					
not ingest. If swallowed then seek immediate medical atte					
vomiting. Just a sip of lamp oil - or even sucking the wick	of lamps may lead to life threatening lung damage. Keep				
lamps filled with this liquid out of the reach of children.					
Contributing Scenarios/					
Specific Risk Management Measures and Operating Co	onaltions				
(only required controls to demonstrate safe use listed)					
Contian 2.2 Control of any incompanial own course					
Section 2.2 Control of environmental exposure					
Product characteristics					
Not applicable					
Duration, frequency and amount					
Not applicable					
Environmental factors not influenced by risk management					
Not applicable					
Other given operational conditions affecting environme	ental exposure				
Not applicable					
Conditions and measures related to municipal sewage treatment plant					
Not applicable					
Conditions and measures related to external treatment of waste for disposal					
Not applicable					
Conditions and measures related to external recovery of waste					
Not applicable					
Section 3 Exposure Estimation					
3.1. Health					
Not applicable					



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3.2. Environment

Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

4.2. Environment

Not applicable



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Section 1 Exposure Scenario Title				
Title:				
Lubricants - Consumer (High Release)				
Use Descriptor				
Sector(s) of Use	SU21			
Product Categories	PC01, PC24, PC31			
°				
Environmental Release Categories	ERC8A, ERC8D			
Specific Environmental Release Category				
Processes, tasks, activities covered	d and an an anti-market start discussion from a surface a			
Covers the consumer use of formulated lubricants in close				
application, operation of engines and similar articles, equip				
Section 2 Operational conditions and risk manageme	nt measures			
Section 2.1 Control of consumer exposure				
Product Characteristic				
Liquid				
Duration, frequency and amount				
Not applicable				
Other given operational conditions affecting consumer				
	se (May be fatal if swallowed and enters airways) relates to			
potential for aspiration, a non-quantifiable hazard determin				
occur during ingestion and also if it is vomited following ing				
physicochemical hazards of substances can be controlled				
substances classified as H304, the following measures need				
not ingest. If swallowed then seek immediate medical atte				
vomiting. Just a sip of lamp oil - or even sucking the wick	of lamps may lead to life threatening lung damage. Keep			
lamps filled with this liquid out of the reach of children.				
Contributing Scenarios/				
Specific Risk Management Measures and Operating Co	onditions			
(only required controls to demonstrate safe use listed)				
Os stien 0.0. Os námel of em insum antel euroseuro				
Section 2.2 Control of environmental exposure				
Product characteristics				
Not applicable				
Duration, frequency and amount				
Not applicable				
Environmental factors not influenced by risk management				
Not applicable				
Other given operational conditions affecting environmental exposure				
Not applicable				
Conditions and measures related to municipal sewage treatment plant				
Conditions and measures related to municipal sewage	treatment plant			
Conditions and measures related to municipal sewage Not applicable	treatment plant			
	·			
Not applicable Conditions and measures related to external treatment of v	·			
Not applicable Conditions and measures related to external treatment of v Not applicable	vaste for disposal			
Not applicable Conditions and measures related to external treatment of v Not applicable Conditions and measures related to external recovery of w	vaste for disposal			
Not applicable Conditions and measures related to external treatment of v Not applicable Conditions and measures related to external recovery of w Not applicable	vaste for disposal			
Not applicable Conditions and measures related to external treatment of v Not applicable Conditions and measures related to external recovery of w Not applicable Section 3 Exposure Estimation	vaste for disposal			
Not applicable Conditions and measures related to external treatment of v Not applicable Conditions and measures related to external recovery of w Not applicable Section 3 Exposure Estimation 3.1. Health	vaste for disposal			
Not applicable Conditions and measures related to external treatment of v Not applicable Conditions and measures related to external recovery of w Not applicable Section 3 Exposure Estimation	vaste for disposal			



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Not applicable

Section 4 Guidance to check compliance with the Exposure Scenario

4.1. Health

Available hazard data do not support the need for a DNEL to be established for other health effects.[G36] Risk Management Measures are based on qualitative risk characterisation. [G37]

4.2. Environment

Not applicable



