

Revision Date: 30 Jan 2021

Page 1 of 11

# SAFETY DATA SHEET

#### SECTION 1 IDENTIFICATION OF THE HAZARDOUS CHEMICAL AND OF THE SUPPLIER

As of the revision date above, this SDS meets the regulations in Malaysia.

**PRODUCT IDENTIFIER** 

Product Name: MOBILTHERM 605

**Product Description:** Base Oil and Additives **Product Code:** 201560802020, 680538

Substance Name: SEVERELY HYDROTREATED HEAVY PARAFFINIC DISTILLATE

**CAS Number:** 64742-54-7

RECOMMENDED USE OF THE CHEMICAL AND RESTRICTIONS ON USE

Recommended Use: Heat transfer

**Restrictions on Use:** None unless specified elsewhere in this SDS.

**SUPPLIER DETAILS** 

Supplier: ExxonMobil Asia Pacific Pte.Ltd. (Company No.: 196800312N)

1 Harbour Front Place

#06-00 Harbour Front Tower One 098633 Singapore

**24 Hour Emergency Telephone** 1-800-815-308 / +1-703-527-3887

Supplier General Contact (+65) 6885 8000

Supplier: HT LUBRICANT SENDIRIAN BERHAD (646137-M)

90, Jin Tampoi

Johor Bahru 81200 Malaysia

Supplier General Contact +607-335 3663

Supplier: MOBILUB TRADING SENDIRIAN BERHAD (514125-H)

No.1, Jalan Meranti Puchong,

D'25@Meranti Puchong

Selangor Darul Ehsan 47120 Malaysia

Supplier General Contact +603-8066 5081

Supplier: OPTIMUM FLUIDS MARKETING SENDIRIAN BERHAD (668909-D)

PLOT 110, LGR.PERINDUSTRIAN, BUKIT MINYAK 11

KAW.PENINDUSTRIAN, Bukit Mertajam Penang 14100 Malaysia

Supplier General Contact +604-510 2166

Supplier: TIMUR LUBE SDN. BHD. (806793-H)



Revision Date: 30 Jan 2021

Page 2 of 11

Wisma Hubline,1st Floor, Lease No.3815, Lot 10914, Section 64

KTLD, Jalan Datuk Abang Abdul Rahim

93450 Kuching

Sarawak Malaysia

Supplier General Contact +6082 338567

#### SECTION 2 HAZARDS IDENTIFICATION

This material is not hazardous according to regulatory guidelines (see SDS Section 15).

Other hazard information:

# PHYSICAL / CHEMICAL HAZARDS

No significant hazards.

#### **HEALTH HAZARDS**

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

#### **ENVIRONMENTAL HAZARDS**

No significant hazards.

**NOTE:** This material should not be used for any other purpose than the recommended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

# SECTION 3 COMPOSITION AND INFORMATION OF THE INGREDIENTS OF THE HAZARDOUS CHEMICAL

This material is defined as a complex substance.

No Hazardous Substance(s) or Complex Substance(s) required for disclosure.

#### SECTION 4 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 immediate medical assistance. 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. For hot product: Immediately immerse in or flush affected area with large amounts of cold water to dissipate heat. Cover with clean cotton sheeting or gauze and get prompt medical attention.

# **EYE CONTACT**



Revision Date: 30 Jan 2021

Page 3 of 11

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

#### **INGESTION**

First aid is normally not required. Seek medical attention if discomfort occurs.

#### **NOTE TO PHYSICIAN**

None

# SECTION 5 FIRE FIGHTING MEASURES

#### **EXTINGUISHING MEDIA**

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

Inappropriate Extinguishing Media: Straight streams of water

#### FIRE FIGHTING

**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.

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

# FLAMMABILITY PROPERTIES

Flash Point [Method]: >200°C (392°F) [ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0

**Autoignition Temperature:** >=380°C (716°F)

## SECTION 6 ACCIDENTAL RELEASE MEASURES

## PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY 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. See Section 6 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 5 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 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



Revision Date: 30 Jan 2021

Page 4 of 11

material is recommended.

#### **ENVIRONMENTAL PRECAUTIONS**

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

#### 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.

# SECTION 7 HANDLING AND STORAGE

# 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.

**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.

# 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. Keep away from incompatible materials.

#### SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

#### **CONTROL PARAMETERS**

**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).



Revision Date: 30 Jan 2021

Page 5 of 11

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

### **Biological limits**

No biological limits allocated.

#### **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. Particulate

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. If product is hot, thermally protective, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves. Nitrile, Viton

**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. If product is hot, thermally protective, chemical resistant apron and long sleeves are recommended.

#### **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



Revision Date: 30 Jan 2021

Page 6 of 11

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.

#### **GENERAL INFORMATION**

Physical State: Liquid

Colour: Amber
Odour: Characteristic
Odour Threshold: N/D

# IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.86 Flammability (Solid, Gas): N/A

Flash Point [Method]: >200°C (392°F) [ASTM D-92]

Flammable Limits (Approximate volume % in air): LEL: 0.9 UEL: 7.0

**Autoignition Temperature:** >=380°C (716°F)

**Boiling Point / Range:** > 316°C (600°F)

**Decomposition Temperature:** N/D **Vapour Density (Air = 1):** > 2 at 101 kPa

Vapour Pressure: < 0.013 kPa (0.1 mm Hg) at 20 °C

Evaporation Rate (n-butyl acetate = 1): N/D

pH: N/A

Log Pow (n-Octanol/Water Partition Coefficient): > 3

Solubility in Water: Negligible

Viscosity: 30.5 cSt (30.5 mm2/sec) at 40°C | 5.2 cSt (5.2 mm2/sec) at 100°C

Oxidizing Properties: See Hazards Identification Section.

# OTHER INFORMATION

Freezing Point: N/D Melting Point: N/A

**Pour Point:**  $-6^{\circ}$ C (21°F)

DMSO Extract (mineral oil only), IP-346: < 3 %wt

#### SECTION 10 STABILITY AND REACTIVITY

**REACTIVITY:** See sub-sections below.

**STABILITY:** Material is stable under normal conditions.

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

**INCOMPATIBLE MATERIALS:** Strong oxidisers

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

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.



Revision Date: 30 Jan 2021

Page 7 of 11

# SECTION 11 TOXICOLOGICAL INFORMATION

# **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 > 2000 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.	Not expected to be an aspiration hazard. 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. Test scores or other study results do not meet criteria for classification.	Not expected to be a reproductive toxicant. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD 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 material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: Data available. Test scores or other study results do not meet criteria for classification.	Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials.  Test(s) equivalent or similar to OECD Guideline 408 410 411 412 453

# OTHER INFORMATION

For the product itself: Base oil severely refined: Not carcinogenic in animal studies. Representative



Revision Date: 30 Jan 2021

Page 8 of 11

\_\_\_\_\_\_

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.

#### IARC Classification:

The following ingredients are cited on the lists below: None.

-- REGULATORY LISTS SEARCHED--

1 = IARC 1 2 = IARC 2A 3 = IARC 2B

# SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

#### **ECOTOXICITY**

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

#### **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.

# PERSISTENCE AND DEGRADABILITY

#### **Biodegradation:**

Material -- Expected to be inherently biodegradable

#### **BIOACCUMULATIVE POTENTIAL**

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

#### 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	LL0 100 mg/l: data for similar materials
		promelas	
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	NOELR 100 mg/l: data for similar



Revision Date: 30 Jan 2021

Page 9 of 11

subcapitata materials

Persistence Degradability and Bioaccumulation Potential

r crosscrice, beg	idadonity and biodocamantion i ot	and Biodocamalation i otential			
Media	Test Type	Duration	Test Results		
Water	Ready Biodegradability	28 day(s)	Percent Degraded <60 :		
			similar material		

#### SECTION 13 DISPOSAL INFORMATION

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.

#### **DISPOSAL 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

## Environmental Quality (Scheduled Wastes) Regulations 2005 waste code: SW 305

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 Environmental Quality (Scheduled Wastes) Regulations 2005.

**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 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**: Not Regulated for Land Transport

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

Marine Pollutant: No

**AIR (IATA):** Not Regulated for Air Transport

# SECTION 15 REGULATORY INFORMATION



Revision Date: 30 Jan 2021

Page 10 of 11

This material is not hazardous as defined by the Occupational Safety and Health (Classification, Labeling and

This material is not hazardous as defined by the Occupational Safety and Health (Classification, Labeling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013.

#### REGULATORY STATUS AND APPLICABLE LAWS AND REGULATIONS

Listed or exempt from listing/notification on the following chemical inventories (May contain substance(s) subject to notification to the EPA Active TSCA inventory prior to import to USA):

DSL, ENCS, IECSC, ISHL, KECI, PICCS, TCSI, TSCA

# National Laws and Regulations:

Occupational Safety and Health (Use and Standards of Exposure of Chemicals Hazardous to Health) Regulations 2000

#### **SECTION 16 OTHER INFORMATION**

## List of abbreviations and acronyms that could be (but not necessarily are) used in this safety data sheet:

AcronymFull textN/ANot applicableN/DNot determinedNENot established

VOC Volatile Organic Compound

AIIC Australian Inventory of Industrial Chemicals

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

# THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:

OPTIMUM FLUIDS MARKETING SENDIRIAN BERHAD (668909-D): Section 01: Supplier Mailing Address information was modified.

TIMUR LUBE SDN. BHD. (806793-H): Section 01: Supplier Mailing Address information was modified.

The information and recommendations contained herein are, to the best of ExxonMobil's knowledge and belief,



Revision Date: 30 Jan 2021

Page 11 of 11

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 of indirectly hold any interest.

DGN:	2026890XMY	(542515)