

Safety Data Sheet

According to Occupational Health and Safety (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Malaysia Regulation 2013



ETRO 4+

Version 1.3

Release Date: 26.08.2020

SECTION 1: Identification of the hazardous chemical and of the supplier

Product identifier

Product name : ETRO 4+
Synonyms : Base Oil
CAS-No. : 64742-54-7
REACH Registration : 01-2119484627-25-XXXX
Number

Recommended use of the chemical and restrictions on use

Recommended use : Lubricant base oil

Manufacturer or supplier's details

Plant Site

Company : Malaysian Refining Company Sdn. Bhd.
Address : Persiaran Penapisan,
76300 Sungai Udang,
Melaka,
Malaysia
Emergency telephone : (+606)-352 2444 (Fire Station Radio Operator)
number : National Poison Centre:
+604-6570099 (Mon-Fri : 8.10 am - 5.10 pm)
+6012-4309499 (Mon-Fri : 5.10 pm - 10.10 pm) &
(Sat, Sun & Public holiday : 8.10 am - 5.10 pm)

SECTION 2: Hazards identification

Classification of the hazardous chemical

Aspiration hazard : Category 1

Label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H304 May be fatal if swallowed and enters airways.

Precautionary statements : **Response:**
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician.
P331 Do NOT induce vomiting.
Storage:
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

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Other hazards which do not result in classification

No information available.

SECTION 3: Composition and information of the ingredients of the hazardous chemical

Substance / Mixture : UVCB

Components

Chemical name	CAS-No.	Concentration (%)
Paraffinic Distillate, Heavy, Hydrotreated	64742-54-7	>= 99 -<= 100

SECTION 4: First aid measures

- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a medical doctor.
Move to fresh air.
- In case of skin contact : If on clothes, remove clothes.
- In case of eye contact : Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
- If swallowed : Keep respiratory tract clear.
Do NOT give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person.
Take victim immediately to hospital.
If symptoms persist, call a medical doctor.
Do NOT induce vomiting.
- General advice : Move out of dangerous area.
Show this safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
Symptoms of poisoning may appear several hours later.
- Most important symptoms and effects, both acute and delayed : No information available.

SECTION 5: Firefighting measures

Extinguishing media

Unsuitable extinguishing media : High volume water jet

Physicochemical hazards arising from the chemical

Special protective equipment and precautions for fire-fighters

- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.
- Specific extinguishing : Standard procedure for chemical fires.

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methods : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment. Ensure adequate ventilation.

Environmental precautions : If the product contaminates rivers and lakes or drains inform respective authorities. Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and materials for containment and cleaning up : Keep in suitable, closed containers for disposal. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).

SECTION 7: Handling and storage

Handling

Precautions for safe handling

Advice on protection against fire and explosion : Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapours/dust. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Dispose of rinse water in accordance with local and national regulations.

Storage

Conditions for safe storage, including any incompatibilities

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

Further information on storage stability : No decomposition if stored and applied as directed.

SECTION 8: Exposure controls and personal protection

Control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis

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Paraffinic Distillate, Heavy, Hydrotreated	64742-54-7	TWA (Mist)	5 mg/m ³	MY PEL
		TWA (Inhalable fraction)	5 mg/m ³	ACGIH

Individual protection measures, such as personal protective equipment

- Eye/face protection : Eye wash bottle with pure water.
Tightly fitting safety goggles
- Skin protection : Impervious clothing Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hand protection
- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

- Appearance : Clear and bright liquid
- Colour : L 0.5 Method: ASTM D 1500
- Odour : No data available
- Odour Threshold : No data available
- pH : No data available
- Pour point : -18 °C Method: ASTM D 97
- Melting point/freezing point : Not applicable
- Initial boiling point and boiling range : not determined
- Flash point : 222 °C Method: ASTM D92
- Evaporation rate : Method: ASTM D 5800 B
Noack 13.0% mass
- Flammability (solid, gas) : Not applicable
- Upper explosion limit / Upper flammability limit : 7 %(V)
- Lower explosion limit / Lower flammability limit : 0.6 %(V)
- Vapour pressure : No data available
- Relative vapour density : No data available
- Relative density : No data available
- Density : 0.8307 g/cm³ (15 °C)
Method: ASTM D 4052
- Solubility(ies)
- Water solubility : Insoluble
- Partition coefficient: n-octanol/water : No data available
- Auto-ignition temperature : No data available
- Decomposition temperature : No data available
- Viscosity
- Viscosity, kinematic : 18.15 mm²/s (40 °C) Method: ASTM D 445
4.13 mm²/s (100 °C) Method: ASTM D 445

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SECTION 10: Stability and reactivity

Reactivity : Hazardous polymerisation does not occur.
 Chemical stability : Stable under normal conditions.
 Possibility of hazardous reactions : No dangerous reaction known under conditions of normal use.
 Incompatible materials : Strong oxidizing agents
 Hazardous decomposition products : Fumes, smoke, carbon monoxide

SECTION 11: Toxicological information

Acute toxicity

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
 Acute inhalation toxicity : LC50 (Rat): > 5.53 mg/l
 Acute dermal toxicity : LD50 (Rabbit): > 2,000 mg/kg

Skin corrosion/irritation

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Species : Rabbit
 Result : No skin irritation

Serious eye damage/eye irritation

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Species : Rabbit
 Result : No eye irritation

Respiratory or skin sensitisation

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Exposure routes : Skin contact
 Result : No evidence of skin sensitization.
 Exposure routes : Inhalation
 Remarks : No data available

Germ cell mutagenicity

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Germ cell mutagenicity - Assessment : No data available

Carcinogenicity

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Carcinogenicity - Assessment : Contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl

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sulphoxide extraction refractive index method'

Reproductive toxicity

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Reproductive toxicity - Assessment : Not suspected to be a reproductive toxicant.

STOT - single exposure

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Assessment : No specific organ toxicity following single exposure.

STOT - repeated exposure

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Assessment : No specific organ toxicity following repeated exposure.

Aspiration toxicity

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Statement on Aspiration Tox. : May be fatal if swallowed and enters airways.

SECTION 12: Ecological information

Ecotoxicity

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Toxicity to fish : LC50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Crustaceans): > 100 mg/l
Exposure time: 48 h

Toxicity to algae : ErC50 (Algae): > 100 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity) : NOEC (Fish): > 1 mg/l

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) : NOEC (Daphnia sp. (water flea)): > 1 mg/l

Toxicity to microorganisms : Remarks: No data available

Persistence and degradability

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Biodegradability : Result: Inherently biodegradable.

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Bioaccumulative potential

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Bioaccumulation : Remarks: Potentially bio-accumulative.
Partition coefficient: n- : log Pow: 2 - 6
octanol/water

Mobility in soil

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Mobility : Medium: Soil
Remarks: No data available

Other adverse effects

Product:

Additional ecological : No data available
information

Components:

Paraffinic Distillate, Heavy, Hydrotreated:

Additional ecological : No data available
information

SECTION 13: Disposal information

Disposal methods

Waste from residues : Do not dispose of waste into sewer.
Do not contaminate ponds, waterways or ditches with
chemical or used container.
Send to a licensed waste management company.

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

SECTION 14: Transport information

International Regulations

UNRTDG

Not regulated as a dangerous good

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Not applicable for product as supplied.

SECTION 15: Regulatory information

Safety, health, and environmental regulations specific for the hazardous chemical

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

REACH	:	This mixture contains only ingredients which have been registered according to Regulation (EC) No. 1907/2006 (REACH).
DSL	:	All components of this product are on the Canadian DSL
AICS	:	On the inventory, or in compliance with the inventory.
NZIoC	:	On the inventory, or in compliance with the inventory.
ENCS	:	On the inventory, or in compliance with the inventory.
ISHL	:	On the inventory, or in compliance with the inventory.
KECI	:	On the inventory, or in compliance with the inventory.
PICCS	:	On the inventory, or in compliance with the inventory.
IECSC	:	On the inventory, or in compliance with the inventory.
TCSI	:	On the inventory, or in compliance with the inventory.
TSCA	:	On TSCA Inventory.

SECTION 16: Other information

Revision Date	:	26.08.2020
Sources of key data used to compile the Safety Data Sheet	:	CONCAWE - The oil companies' European association for Environment, Health and Safety in refining and distribution (2017)

Full text of other abbreviations

(Q)SAR	-	(Quantitative) Structure Activity Relationship
ACGIH	-	American Conference of Governmental Industrial Hygienists
AICS	-	Australian Inventory of Chemical Substances
ANTT	-	National Agency for Transport by Land of Brazil
ASTM	-	American Society for the Testing of Materials
bw	-	Body weight
C	-	Ceiling
CCHC	-	Chemicals Classification and Hazard Communication
CEIL	-	Ceiling
CMR	-	Carcinogen, Mutagen or Reproductive Toxicant
CPR	-	Controlled Products Regulations
DIN	-	Standard of the German Institute for Standardisation
DSL	-	Domestic Substances List (Canada)
ECx	-	Concentration associated with x% response
ELx	-	Loading rate associated with x% response
EmS	-	Emergency Schedule
ENCS	-	Existing and New Chemical Substances (Japan)
ErCx	-	Concentration associated with x% growth rate response

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ERG	-	Emergency Response Guide
GHS	-	Globally Harmonized System of Classification and Labelling of Chemicals
GLP	-	Good Laboratory Practice
IARC	-	International Agency for Research on Cancer
IATA	-	International Air Transport Association
IBC	-	International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IC50	-	Half maximal inhibitory concentration
ICAO	-	International Civil Aviation Organization
ICOP	-	Industry Code of Practice on Chemicals Classification and Hazard Communication
IECSC	-	Inventory of Existing Chemical Substances in China
IMDG	-	International Maritime Dangerous Goods
IMO	-	International Maritime Organization
ISHL	-	Industrial Safety and Health Law (Japan)
ISO	-	International Organisation for Standardization
KECI	-	Korea Existing Chemicals Inventory
LC50	-	Lethal Concentration to 50 % of a test population
LD50	-	Lethal Dose to 50% of a test population (Median Lethal Dose)
MARPOL	-	International Convention for the Prevention of Pollution from Ships
MY PEL	-	Malaysian Permissible Exposure Limit
n.o.s.	-	Not Otherwise Specified
Nch	-	Chilean Norm
NITE	-	National Institute of Technology and Evaluation
NO(A)EC	-	No Observed (Adverse) Effect Concentration
NO(A)EL	-	No Observed (Adverse) Effect Level
NOELR	-	No Observable Effect Loading Rate
NOM	-	Official Mexican Norm
NTP	-	National Toxicology Program
NZIoC	-	New Zealand Inventory of Chemicals
OCSPP	-	Office of Chemical Safety and Pollution Prevention
OECD	-	Organization for Economic Co-operation and Development
PBT	-	Persistent, Bioaccumulative and Toxic
PICCS	-	Philippines Inventory of Chemicals and Chemical Substances
REACH	-	Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals
SADT	-	Self-Accelerating Decomposition Temperature
SDS	-	Safety Data Sheet
STEL	-	Short Term Exposure Limit
TCSI	-	Taiwan Chemical Substance Inventory
TDG	-	Transportation of Dangerous Goods
TSCA	-	Toxic Substances Control Act (United States)
TWA	-	Time Weighted Average
UN	-	United Nations
UNRTDG	-	United Nations Recommendations on the Transport of Dangerous Goods
UVCB	-	Unknown or Variable Composition, Complex Reaction Products and Biological Materials
vPvB	-	Very Persistent and Very Bioaccumulative
WHMIS	-	Workplace Hazardous Materials Information System
LLx	-	Loading rate associated with x% lethality effect

Disclaimer

To the best of PETRONAS knowledge, the information contained herein is accurate and reliable as of the date of publication. Any use of information provided should be undertaken in

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Product Stewardship Advisory:

PETRONAS aims to increase awareness of all the hazards associated with the storage, handling and use of its products. Thoroughly reviewing the accompanying Safety Data Sheets and disseminating the information to all dependent and interested parties is an essential part of any 'Responsible Care' programme.

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