SAFETY DATA SHEET



(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

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

1.1. Product identifier

Product name: 100 2T Product code: 10000

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

2-stroke engine lubricant

1.3. Details of the supplier of the safety data sheet

Registered company name: MOTUL

Address: 119, Boulevard Felix Faure. 93300 AUBERVILLIERS CEDEX FRANCE

Telephone: 33.1.48.11.70.00. Fax: 33.1.48.33.28.79. Telex: .

Email: motul_hse@motul.fr

1.4. Emergency telephone number: +44 (0) 1235 239 670.

Association/Organisation: .



Other emergency numbers

BRAZIL: +55 11 3197 5891 / COLOMBIA: +57 1 508 7337 / ARGENTINA: +54 11 5984 3690 / CHILE: +562 2582 9336

Ireland: +353 1 8092566

UNITED STATES: 001 866 928 0789 / CANADA: 001 800 579 7421 / MEXICO: +52 55 5004 8763 / MIDDLE EAST - AFRICA: +44 1235

239671

24 hours a day, 7 days a week

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

May produce an allergic reaction (EUH208).

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Additional labeling:

EUH208 Contains PHENATES BRANCHED ALKYL CALCIUM. May produce an allergic reaction.

Precautionary statements - General:

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

P102 Keep out of reach of children. P103 Read label before use.

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European

CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures



Composition:

Identification	(EC) 1272/2008	Note	%
CAS: 64742-54-7		L	50 <= x % < 100
EC: 265-157-1			
REACH: 01-2119484627-25			
DISTILLATS PARAFFINIQUES LOURDS			
(PETROLE) HYDROTRAITÉS			
EC: 926-141-6	GHS08		2.5 <= x % < 10
REACH: 01-2119456620-43	Dgr		
	Asp. Tox. 1, H304		
HYDROCARBONS, C11-C14,	EUH:066		

REACH: *01-2119480472-38

RESIDUAL OILS (PETROLEUM),
SOLVENT-DEWAXED

CAS: - GHS07 0 <= x % < 1

EC: 420-470-4 Wng

REACH: 01-0000016710-0001 Skin Irrit. 2, H315
Skin Sens. 1, H317

PHENATES BRANCHED ALKYL CALCIUM Eye Irrit. 2, H319

(Full text of H-phrases: see section 16)

Information on ingredients:

Note L: The carcinogen classification does not apply because the substance contains less than 3 % w/w of dimethyl sulphoxide (DMSO) measured using the IP 346 method.

SECTION 4: FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation:

In the event of an allergic reaction, seek medical attention.

Remove the victim to fresh air. If the symptoms persist, call a physician.

In the event of splashes or contact with eyes :

Wash immediately and abundantly with water, including under the eyelids.

In the event of splashes or contact with skin:

In the event of an allergic reaction, seek medical attention.

Immediately remove all soiled clothing.

Wash immediately and abundantly with soap and water.

In the event of swallowing:

Seek medical attention, showing the label.

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

No data available.

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

No data available.

SECTION 5: FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media



Suitable methods of extinction

Dry agent, foam, carbon dioxide.



Unsuitable methods of extinction High volume water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed:

- carbon monoxide (CO)
- carbon dioxide (CO2)

5.3. Advice for firefighters

No data available.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

Spilled product may make surfaces slippery.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7: HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Avoid contact with eyes.

No special precaution apart from the observance of hygiene rules

Fire prevention:

Prevent access by unauthorised personnel.

Take precautionary measures against static discharges by bonding and grounding equipment.

No smoking.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Ensure good ventilation at the workplace

Prohibited equipment and procedures:

No smoking, eating or drinking in areas where the mixture is used.

Do not breathe fumes, vapour, spray.

7.2. Conditions for safe storage, including any incompatibilities

Store between 5°C and 40°C in a dry, well ventilated place.

Only use hydrocarbon-resistant containers, joints and pipes.

Storage

Keep out of reach of children.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

DISTILLATS PARAFFINIQUES LOURDS (PETROLE) HYDROTRAITÉS (CAS: 64742-54-7)

Final use: Workers.

Exposure method: Inhalation.

Potential health effects: Long term local effects.

DNEL: 5.4 mg de substance/m3

Final use: Consumers.

Exposure method: Inhalation.

Potential health effects:

DNEL:

Long term local effects.

1.2 mg de substance/m3

8.2. Exposure controls

Appropriate engineering controls

Ensure adequate ventilation, if possible with extractor fans at work posts and appropriate general extraction.

Personnel shall wear regularly laundered overalls.

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE):



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles in accordance with standard EN166.



- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question: other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

- Impervious gloves in accordance with standard EN374

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Breathing apparatus only when aerosol or spray are formed.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :

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Color:	green			
Important health, safety and environmental information				
pH:	Not relevant.			
Flash Point Interval	FP > 100°C			

Fluid liquid.

pH:	Not relevant.
Flash Point Interval :	FP > 100°C.
Vapour pressure (50°C):	Not relevant.
Density:	<1
Water solubility:	Insoluble.
Viscosity:	77.9 mm²/s à 40°C

9.2. Other information

No data available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

No data available.



10.4. Conditions to avoid

Keep away from heat and from sources of ignition

Take precautionary measures against static discharges.



10.5. Incompatible materials

Strong oxidants

Acids

100 2T - 10000

10.6. Hazardous decomposition products

 $\mathbb{T}\text{he}$ thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

No data available.

11.1.1. Substances

Acute toxicity:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED (CAS: 64742-62-7)

LC50 = 5.53 mg/l Species : Rat

HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Oral route: LD50 > 5000 mg/kg

Species: Rat

OCDE Ligne directrice 401 (Toxicité aiguë par voie orale)

Dermal route : LD50 > 5000 mg/kg

Species : Rabbit

OCDE Ligne directrice 402 (Toxicité aiguë par voie cutanée)

Inhalation route (n/a): LC50 > 5000 mg/m3

Species : Rat

DISTILLATS PARAFFINIQUES LOURDS (PETROLE) HYDROTRAITÉS (CAS: 64742-54-7)

Oral route: LD50 > 5000 mg/kg

Species : Rat

OCDE Ligne directrice 420 (Toxicité orale aiguë - Méthode de la dose

prédéterminée)

Dermal route: LD50 > 5000 mg/kg

Species : Rabbit

OCDE Ligne directrice 402 (Toxicité aiguë par voie cutanée)

Inhalation route (n/a): Inhalation route (n/a):

LC50 > 5 mg/l Species : Cat

OCDE Ligne directrice 403 (Toxicité aiguë par inhalation)

Skin corrosion/skin irritation:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED (CAS: 64742-62-7)

Irritation: No observed effect.

Average score < 1.5 Species : Rabbit

Duration of exposure: 72 h

Serious damage to eyes/eye irritation :

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED (CAS: 64742-62-7)

Iritis : Average score = 0

Species : Rabbit

Duration of exposure: 48 h

Conjunctival redness : Average score = 0.33

Species : Rabbit

Duration of exposure : 48 h

Respiratory or skin sensitisation:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED (CAS: 64742-62-7)
Guinea Pig Maximisation Test (GMPT): Non-sensitiser.

Species: Or

Germ cell mutagenicity:

Carcinogenicity:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED (CAS: 64742-62-7)

Species: Mouse

Reproductive toxicant:

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED (CAS: 64742-62-7)

No toxic effect for reproduction

11.1.2. Mixture

Skin corrosion/skin irritation:

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in non allergic contact dermatitis and absorption through the skin.

Serious damage to eyes/eye irritation :

Mild eye irritation

Respiratory or skin sensitisation:

Contains at least one sensitising substance. May cause an allergic reaction.

Aspiration hazard:

"Inhalation of vapours may cause irritation of the respiratory system in very susceptible persons."

May cause lung damage if swallowed

(1)

Monograph(s) from the IARC (International Agency for Research on Cancer):

CAS 91-20-3: IARC Group 2B: The agent is possibly carcinogenic to humans.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity



12.1.1. Substances

HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Fish toxicity: LC50 > 1000 mg/l

Duration of exposure: 96 h

OCDE Ligne directrice 203 (Poisson, essai de toxicité aiguë)

Crustacean toxicity: EC50 > 1000 mg/l

Species : Daphnia magna

Duration of exposure: 48 h

Algae toxicity: ECr50 >= 1000 mg/l

Species: Pseudokirchnerella subcapitata

Duration of exposure: 72 h

OCDE Ligne directrice 201 (Algues, Essai d'inhibition de la croissance)

DISTILLATS PARAFFINIQUES LOURDS (PETROLE) HYDROTRAITÉS (CAS: 64742-54-7)

Fish toxicity:

Duration of exposure: 96 h

Crustacean toxicity : EC50 > 10000 mg/l

Duration of exposure: 48 h

Algae toxicity: ECr50 > 100 mg/l

Duration of exposure: 72 h

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability



12.2.1. Substances

PHENATES BRANCHED ALKYL CALCIUM (CAS: -)

100 2T - 10000

Biodegradability: no degradability data is available, the substance is considered as not

degrading quickly.

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED (CAS: 64742-62-7) Biodegradability:

Rapidly degradable.

HYDROCARBONS, C11-C14, N-ALKANES, ISOALKANES, CYCLICS, <2% AROMATICS

Biodegradability: no degradability data is available, the substance is considered as not

degrading quickly.

DISTILLATS PARAFFINIQUES LOURDS (PETROLE) HYDROTRAITÉS (CAS: 64742-54-7)

Biodegradability: Rapidly degradable.

12.3. Bioaccumulative potential



12.3.1. Substances

RESIDUAL OILS (PETROLEUM), SOLVENT-DEWAXED (CAS: 64742-62-7)

Octanol/water partition coefficient : log Koe > 3

DISTILLATS PARAFFINIQUES LOURDS (PETROLE) HYDROTRAITÉS (CAS: 64742-54-7)

Octanol/water partition coefficient : log Koe > 6

12.4. Mobility in soil

Not very mobile in soil.

The product is insoluble in water and will spread on the surface

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

Do not dispose of the product in the natural environment, effluents or surface waters.



German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws):

WGK 1: Slightly hazardous for water.

SECTION 13: DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste:

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging:

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14: TRANSPORT INFORMATION

Exempt from transport classification and labelling.

14.1. UN number

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14.2. UN proper shipping name

14.3. Transport hazard class(es)

14.4. Packing group

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14.5. Environmental hazards

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14.6. Special precautions for user

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SECTION 15: REGULATORY INFORMATION

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 1297/2014.

Container information:

No data available.

- Particular provisions :

No data available.

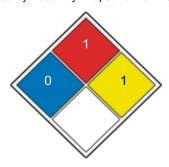


- German regulations concerning the classification of hazards for water (WGK, AwSV vom 18/04/2017, KBws):

WGK 1: Slightly hazardous for water.

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704):

NFPA 704, Labelling: Health=0 Inflammability=1 Instability/Reactivity=1 Specific Risk=none



15.2. Chemical safety assessment

Product is not classified health and environmental hazard. Exposure scenarios are not required.

SECTION 16: OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3:

H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
EUH066	Repeated exposure may cause skin dryness or cracking.

Abbreviations:

DNEL: Derived No-Effect Level

ADR: European agreement concerning the international carriage of dangerous goods by Road.

IMDG: International Maritime Dangerous Goods. IATA: International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID: Regulations concerning the International carriage of Dangerous goods by rail.

WGK: Wassergefahrdungsklasse (Water Hazard Class).

PBT: Persistent, bioaccumulable and toxic. vPvB: Very persistent, very bioaccumulable. SVHC: Substances of very high concern.