Safety Data Sheet dated 31/1/2023, version 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Mixture identification:

Trade name: EULHM
Trade code: REUOT-258

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

Recommended use:

Hydraulic fluid for the braking and suspension circuits of some Cirtoen vehicles.
Rolling systems of road trains cabins.

1.3. Details of the supplier of the safety data sheet

Company:

RILUB S.p.A.
Via FF. SS. 139
80044 Ottaviano (NA)
Tel. (+39) 081 3383413

Competent person responsible for the safety data sheet:

infolab@rilub.it

1.4. Emergency telephone number

Poison Control Center: Az. Osp. "A. Cardarelli" Naples - Tel. 081 5453333

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Direct and prolonged contact can cause eye and skin irritation.
Hazards reported in section 2 are referred to the product in the finished form.
Hazards are reduced if the product is used in water emulsion.
EC regulation criteria 1272/2008 (CLP)

Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:

None

Hazard statements:

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

Restricted to professional users.

2.3. Other hazards

No PBT, vPvB or endocrine disruptor substances present in concentration >= 0.1%

Other Hazards:

No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances

N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 20% - < 25%	Distillati paraffinici leggeri (petrolio), idrotrattati	CAS: 64742-55-8 EC: 265-158-7	3.10/1 Asp. Tox. 1 H304
>= 20% - < 25%	Idrocarburi, C13-C16, n-alcani, isoalcani, ciclici, < 0.03% aromatici	EC: 934-954-2	3.10/1 Asp. Tox. 1 H304
>= 3% - < 5%	Gas oils (petroleum), hydrodesulfurized	CAS: 64742-79-6 EC: 265-182-8	3.1/4/Inhal Acute Tox. 4 H332 3.2/2 Skin Irrit. 2 H315 3.10/1 Asp. Tox. 1 H304 4.1/C2 Aquatic Chronic 2 H411
>= 0.5% - < 1%	2,6-di-ter-butilfenolo	CAS: 128-39-2 EC: 204-884-0	4.1/A1 Aquatic Acute 1 H400 M=1. 4.1/C1 Aquatic Chronic 1 H410 3.2/2 Skin Irrit. 2 H315
>= 0.1% - < 0.25%	fosfato di tris(metilfenile)	CAS: 1330-78-5 EC: 215-548-8	3.7/2 Repr. 2 H361fd 4.1/A1 Aquatic Acute 1 H400 M=1. 4.1/C1 Aquatic Chronic 1 H410 M=1.
500 ppm	Fenolo, dodecyl-, ramificati	CAS: 121158-58-5 EC: 310-154-3	4.1/A1 Aquatic Acute 1 H400 M=10. 4.1/C1 Aquatic Chronic 1 H410 M=10. 3.3/1 Eye Dam. 1 H318 3.7/1B Repr. 1B H360 3.2/1C Skin Corr. 1C H314
50 ppm	Naftalene	CAS: 91-20-3 EC: 202-049-5	3.1/4/Oral Acute Tox. 4 H302 3.6/2 Carc. 2 H351 4.1/A1 Aquatic Acute 1 H400 M=1. 4.1/C1 Aquatic Chronic 1 H410

SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:

Injuries due to high pressure jets require a prompt surgical intervention and possibly a steroids therapy, to minimize tissue damage and loss of functions.

Every substance, in case of accidents with high pressure pipes or similar, can be accidentaly injected under skin tissue, even without external noticeable skin damage. In this case it's necessary to bring the injured as soon as possible to the hospital for required treatment.
Remove contaminated clothes.
Remove contaminated clothes after having started washing of affected body parts and wash thoroughly with water and soap. Immediately call a doctor if necessary.
During usage of high pressure equipment, injection of the product under the skin is possible. In case of injuries due to high pressure jets, injured should be immediately accompanied to the hospital. Don't wait for symptoms to appear.
Wash with plenty of water and soap.

In case of eyes contact:

Wash eyes immediately with plenty of water for some minute leaving eyelids open.
Immediately call a doctor if pain and redness persists.
Wash eyes immediately with plenty of water for some minute leaving eyelids open.
Immediately call a doctor.
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do not under any circumstances induce vomiting.
OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:

In case of exposition to high concentration of vapours and mist remove person from the contaminated area and move to a well ventilated place.
Call for medical attention if necessary.
In case of exposition to high concentration of vapours and mist remove person from the contaminated area, move to a well ventilated place and ask for medical attention.
Remove casualty to fresh air and keep warm and at rest.

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

None

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

Treatment:
In case of exposition to high concentration of vapours and mist remove person from the contaminated area and move to a well ventilated place.
Call for medical attention if necessary.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Use class B fire extinguishing media: carbon dioxide, dry chemical powder, foam, sand, earth. Water.
Carbon dioxide (CO2).
Extinguishing media which must not be used for safety reasons:
Avoid usage of water jets. Use water only to cool the surface of the container exposed to fire.
None in particular.

5.2. Special hazards arising from the substance or mixture

Avoid to breathe combustion smoke, because, as a result of fire, chlorine, sulfur, nitrogen and unburnt hydrocarbons compounds can be formed, as long as other potentially dangerous compounds.
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.

5.3. Advice for firefighters

Note: Cool with water all the containers not involved in fire but exposed to heat of fire, to avoid eventual explosion and propagation of fire.
Use suitable breathing apparatus.
Collect contaminated fire extinguishing water separately.
This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.
Full protective suit equipped with respiratory equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid contact with skin and eyes, using appropriate protective equipments.
In case of spillage of relevant quantities, most of all if in confined environment, avoid to breathe vapours and ventilate the environment, or use protective equipment for respiration.
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.

6.2. Environmental precautions

Avoid dispersion of the product and penetration in the soil, in the sewers or in surface water.
If necessary inform competent local authorities.
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up

In case of spill or leakage: danger of aerosol formation, which may, under appropriate condition of ignition, catch fire.
Stem in case of spillage of relevant quantities of product. Contains the spill of little quantities of product with earth, sand or other inert absorbing material. Transfer in appropriate impermeable containers, adequate for storage and transport of recovered material.
Dispose according to current regulation.
Wash with plenty of water.

6.4. Reference to other sections

See also section 8 and 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid direct contact with the product.
Avoid to breathe aerosol or vapours of the product, ensuring an adequate ventilation of workplace, most of all if confined.
Don't smoke or use open flames; avoid contact with sparks or possible sources of ignition; do not keep open containers in the workplace, in order to avoid formation of highly concentrated vapours.
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
See also section 8 for recommended protective equipment.
Advice on general occupational hygiene:
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities

Maintain the product in original containers, stored in an environment and conditions such as is possible to ensure control and containment of leakage. Store in a cool place, away from any heat source or possible ignition and from exposure to sun light. Avoid accumulating electrostatic charge. Containers must be maintained closed.
Ensure adequate ventilation of the room.
Keep away from food, drink and feed.
Incompatible materials:
None in particular.

Instructions as regards storage premises:
Adequately ventilated premises.

7.3. Specific end use(s)

None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No specific requirements in normal conditions of use.
Avoid generation of mists or aerosol and their diffusion through machine protection (if appropriate) and through the usage of localized ventilation/aspiration.
Naftalene - CAS: 91-20-3
EU - TWA(8h): 50 mg/m3, 10 ppm
ACGIH - TWA(8h): 10 ppm - Notes: Skin, A3 - URT irr, cataracts, hemolytic anemia
DNEL Exposure Limit Values
Distillati paraffinici leggeri (petrolio), idrotrattati - CAS: 64742-55-8
Worker Industry: 5.4 mg/m3 - Worker Professional: 5.4 mg/m3 - Exposure: Inhalation aerosol - Frequency: Long Term (Local effect) - Notes: 8h
Consumer: 1.2 mg/m3 - Exposure: Inhalation aerosol - Frequency: Long Term (Local effect) - Notes: 24h
Gas oils (petroleum), hydrodesulfurized - CAS: 64742-79-6
Worker Industry: 5000 mg/m3 - Worker Professional: 5000 mg/m3 - Consumer: 3000 mg/m3 - Exposure: Inhalation aerosol - Frequency: Short Term (Systemic effect) - Notes: 15 min
Worker Industry: 2.9 mg/kg - Worker Professional: 2.9 mg/Kg bw/day - Consumer: 1.3 mg/kg - Exposure: Dermal - Frequency: Long Term (Systemic effect) - Notes: 8h
Worker Industry: 16 mg/m3 - Worker Professional: 16 mg/m3 - Consumer: 4.8 mg/m3 - Exposure: Inhalation aerosol - Frequency: Short Term (Systemic effect) - Notes: 8h
2,6-di-ter-butilfenolo - CAS: 128-39-2
Worker Industry: 2.77 mg/Kg bw/day - Worker Professional: 2.77 mg/Kg bw/day - Exposure: Dermal
Worker Industry: 19.6 mg/m3 - Worker Professional: 19.6 mg/m3 - Consumer: 5.8 mg/m3 - Exposure: Human Inhalation
Consumer: 1.67 mg/Kg bw/day - Exposure: Oral
fosfato di tris(metilfenile) - CAS: 1330-78-5
Worker Industry: 1.11 mg/m3 - Worker Professional: 1.11 mg/m3 - Consumer: 0.28 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term (Systemic effect)
Worker Industry: 74 mg/Kg bw/day - Worker Professional: 74 mg/Kg bw/day - Consumer: 37 mg/Kg bw/day - Exposure: Dermal - Frequency: Short Term (Systemic effect)
Worker Industry: 16 rilub02 - Worker Professional: 16 rilub02 - Consumer: 8 rilub02 - Exposure: Dermal - Frequency: Short Term (Local effect)
Worker Industry: 0.47 mg/m3 - Worker Professional: 0.47 mg/m3 - Consumer: 0.06 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term (Systemic effect)
Worker Industry: 3.33 mg/Kg bw/day - Worker Professional: 3.33 mg/Kg bw/day - Consumer: 1.67 mg/Kg bw/day - Exposure: Dermal - Frequency: Long Term (Systemic effect)
Fenolo, dodecyl-, ramificati - CAS: 121158-58-5
Worker Industry: 166 mg/Kg bw/day - Worker Professional: 166 mg/Kg bw/day - Consumer: 50 mg/Kg bw/day - Exposure: Dermal - Frequency: Short Term (Systemic effect)
Worker Industry: 44.18 mg/m3 - Worker Professional: 44.18 mg/m3 - Consumer: 13.26 mg/m3 - Exposure: Human Inhalation - Frequency: Short Term (Systemic effect)
Worker Industry: 0.25 mg/Kg bw/day - Worker Professional: 0.25 mg/Kg bw/day - Consumer: 0.075 mg/Kg bw/day - Exposure: Dermal - Frequency: Long Term (Systemic effect)

Worker Industry: 1.7621 mg/m3 - Worker Professional: 1.7621 mg/m3 - Consumer: 0.79 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term (Systemic effect)
Consumer: 1.26 mg/Kg bw/day - Exposure: Oral - Frequency: Short Term (Systemic effect)

Naftalene - CAS: 91-20-3

Worker Industry: 25 mg/m3 - Worker Professional: 25 - Exposure: Human Inhalation - Frequency: Long Term (Systemic effect)
Worker Industry: 3.57 mg/Kg bw/day - Worker Professional: 3.57 - Exposure: Dermal - Frequency: Short Term (Systemic effect)
Worker Industry: 25 mg/m3 - Worker Professional: 25 - Exposure: Human Inhalation - Frequency: Long Term (Local effect)

PNEC Exposure Limit Values

2,6-di-ter-butilfenolo - CAS: 128-39-2

Target: Water - Value: 0.045 mg/l - Notes: or
Target: Freshwater sediments - Value: 0.196 mg/kg - Notes: dw fw
Target: Soil - Value: 0.0389 mg/kg - Notes: dw
Target: STP - Value: 10 mg/l

fosfato di tris(metilfenile) - CAS: 1330-78-5

Target: Water - Value: 0.00146 mg/l - Notes: or
Target: Freshwater sediments - Value: 0.0404 mg/kg - Notes: dw fw
Target: Soil - Value: 0.00000317 mg/kg - Notes: dw
Target: STP - Value: 100 mg/l
Target: Orale - Value: 0.67 mg/kg

Fenolo, dodecyl-, ramificati - CAS: 121158-58-5

Target: Water - Value: 0.00037 mg/l - Notes: or
Target: Freshwater sediments - Value: 0.226 mg/kg - Notes: fw dw
Target: Soil - Value: 0.118 mg/kg - Notes: dw
Target: STP - Value: 100 mg/l
Target: Orale - Value: 4 mg/kg - Notes: food

Naftalene - CAS: 91-20-3

Target: Water - Value: 0.020 mg/l - Notes: or
Target: Freshwater sediments - Value: 0.0672 mg/kg - Notes: dw fw
Target: Soil - Value: 0.0533 mg/kg - Notes: dw
Target: STP - Value: 2.9 mg/l

8.2. Exposure controls

Eye protection:

Wear safety glasses whenever is possible to come in contact with the product.
For more information refer to UNI-EN 166 standard.
Not needed for normal use. Anyway, operate according good working practices.

Protection for skin:

Use full suit and apron in suitable material; change immediately contaminated clothes and wash carefully before reuse.
It's advisable to maintain good personal and work clothes hygiene.
For more information refer to UNI-EN 465/466/467 standard.
No special precaution must be adopted for normal use.

Protection for hands:

Wear work gloves (for example in neoprene, nitrile or PVC), preferably with inner cover, resistant to mineral oils or solvents. Gloves must be changed when signs of wear are visible.
Wear gloves after an adequate cleaning of the hands.
In case of not prolonged contacts, use of barrier creams may be an useful protection equipment.
In case of not prolonged contacts, use of barrier creams may be an useful protection equipment.
Choice of protective gloves depends also on use conditions and needs to consider the information from the supplier.
For more information refer to UNI-EN 374 standard.

Not needed for normal use.

Respiratory protection:

Whenever operational conditions and other equipment to limit workers exposure will be not adequate to respect exposure limits as specified in section 8, other protective equipments for respiratory ways are needed: mask with filter for organic vapours and for dusts/mists (e.g. active carbon mask)

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Properties	Value	Method:	Notes
Physical state:	liquid	--	--
Colour:	green	--	--
Odour:	caratteristico	--	--
Melting point/freezing point:	-55°C	ASTM D 97	--
Boiling point or initial boiling point and boiling range:	Not defined/ Not available	--	--
Flammability:	N.A.	--	--
Lower and upper explosion limit:	5.0 Vol% - 0.5 Vol%	--	--
Flash point:	125°C	ASTM D 92	--
Auto-ignition temperature:	Not defined/ Not available	--	--
Decomposition temperature:	Not defined/ Not available	--	--
pH:	Not defined/ Not available	--	--
Kinematic viscosity:	N.A.	--	--
Solubility in water:	Insolubile	--	--
Solubility in oil:	Solubile	--	--
Partition coefficient n-octanol/water (log value):	Not defined/ Not available	--	--
Vapour pressure:	0.1 hPa @ 20°C	--	--
Density and/or relative density:	0.845 kg/dm³	ASTM D 4052	--
Relative vapour density:	Not defined/ Not available	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes
Explosive properties:	Prodotto non esplosivo	--	--

Viscosity:	18.0 cSt @ 40°C - 6.5 cSt @ 100°C	ASTM D 445	--

SECTION 10: Stability and reactivity

10.1. Reactivity

Avoid contact with strong acids and bases and strong oxidizers.
Stable under normal conditions.

10.2. Chemical stability

Product is stable to room temperature.
Stable under normal conditions.

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological information of the product:

EULHM

a) acute toxicity
Not classified
Based on available data, the classification criteria are not met

b) skin corrosion/irritation
Not classified
Based on available data, the classification criteria are not met

c) serious eye damage/irritation
Not classified
Based on available data, the classification criteria are not met

d) respiratory or skin sensitisation
Not classified
Based on available data, the classification criteria are not met

e) germ cell mutagenicity
Not classified
Based on available data, the classification criteria are not met

f) carcinogenicity
Not classified
Based on available data, the classification criteria are not met

g) reproductive toxicity
Not classified
Based on available data, the classification criteria are not met

h) STOT-single exposure
Not classified
Based on available data, the classification criteria are not met

i) STOT-repeated exposure
Not classified
Based on available data, the classification criteria are not met

j) aspiration hazard
Not classified
Based on available data, the classification criteria are not met

Toxicological information of the main substances found in the product:

Distillati paraffinici leggeri (petrolio), idrotrattati - CAS: 64742-55-8
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg
Test: LC50 - Route: Inhalation of aerosol - Species: Rat > 5 mg/l - Duration: 4h
Idrocarburi, C13-C16, n-alcani, isoalcani, ciclici, < 0.03% aromatici
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 3160 mg/kg - Duration: 24h
Test: LC50 - Route: Inhalation of aerosol - Species: Rat > 5 mg/l - Duration: 4h
Gas oils (petroleum), hydrodesulfurized - CAS: 64742-79-6
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
Test: LC50 - Route: Inhalation of aerosol - Species: Rat 4.6 mg/l - Duration: 4h
2,6-di-ter-butilfenolo - CAS: 128-39-2
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
fosfato di tris(metilfenile) - CAS: 1330-78-5
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 3700 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit 10000 mg/kg
Test: LD50 - Route: Inhalation 11.1 mg/l
g) reproductive toxicity:
Source: Unione Europea - Notes: Repr. 2 (H361fd)
Fenolo, dodecyl-, ramificati - CAS: 121158-58-5
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 2700 mg/kg
Test: LD50 - Route: Skin - Species: Rat > 3160 mg/kg
g) reproductive toxicity:
Source: Unione Europea - Notes: Repr. 1B (H360F)
Naftalene - CAS: 91-20-3
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat 490 mg/kg
Test: LD50 - Route: Skin - Species: Rat 2201 mg/kg
Test: LD50 - Route: Inhalation - Species: Rat > 500 mg/m3 - Duration: 8h
f) carcinogenicity:
Source: Unione Europea - Notes: Carc. 2 (H351)

11.2. Information on other hazards

Endocrine disrupting properties:
No endocrine disruptor substances present in concentration >= 0.1%

SECTION 12: Ecological information

12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment.
EULHM
The product is classified: Aquatic Chronic 3 - H412
Distillati paraffinici leggeri (petrolio), idrotrattati - CAS: 64742-55-8
Acute aquatic toxicity:
Endpoint: EL50 - Species: Pseudokirchneriella subcapitata > 100 mg/l - Duration h: 48
Endpoint: EL50 - Species: Daphnia > 1000 mg/l - Duration h: 48
Endpoint: LL50 - Species: Fish > 100 mg/l - Duration h: 96
Chronic aquatic toxicity:

Endpoint: NOELR - Species: Daphnia 10 mg/l - Notes: 21d
Endpoint: NOELR - Species: Oncorynchus Mykyss > 1000 mg/l - Notes: 14/21 d

Idrocarburi, C13-C16, n-alcani, isoalcani, ciclici, < 0.03% aromatici
Acute aquatic toxicity:
Endpoint: EL50 - Species: Skeletonema > 10000 mg/l - Duration h: 72
Endpoint: LL50 - Species: Acartia > 3193 mg/l - Duration h: 48
Endpoint: LL50 - Species: Scophthalmus > 1028 mg/l - Duration h: 96
Chronic aquatic toxicity:
Endpoint: NOELR - Species: Daphnia > 1000 mg/l - Notes: 21d
Endpoint: NOELR - Species: Oncorynchus Mykyss > 1000 mg/l - Notes: 28d

Gas oils (petroleum), hydrodesulfurized - CAS: 64742-79-6
Acute aquatic toxicity:
Endpoint: EL50 - Species: Daphnia 7385 mg/l - Duration h: 48
Endpoint: LL50 - Species: Oncorynchus Mykyss 21 mg/l - Duration h: 96
Chronic aquatic toxicity:
Endpoint: NOELR - Species: Daphnia 0.163 mg/l - Notes: 21d

2,6-di-ter-butilfenolo - CAS: 128-39-2
Acute aquatic toxicity:
Endpoint: EC50 - Species: Algae 1.2 mg/l - Duration h: 72
Endpoint: EC50 - Species: Daphnia 0.45 mg/l - Duration h: 48
Endpoint: LC50 - Species: Oncorynchus Mykyss 1 mg/l - Duration h: 96
Chronic aquatic toxicity:
Endpoint: NOEC 0.3 mg/l - Notes: 28d

fosfato di tris(metilfenile) - CAS: 1330-78-5
Acute aquatic toxicity:
Endpoint: EC50 - Species: Algae 0.4 mg/l - Duration h: 72
Endpoint: EC50 - Species: Daphnia 0.14 mg/l - Duration h: 48
Endpoint: LC50 - Species: Fish 0.6 mg/l - Duration h: 96
Chronic aquatic toxicity:
Endpoint: NOEC - Species: Danio Rerio 0.0037 mg/l - Notes: 21d

Fenolo, dodecyl-, ramificati - CAS: 121158-58-5
Acute aquatic toxicity:
Endpoint: EC50 - Species: Algae 0.15 mg/l - Duration h: 72
Endpoint: EC50 - Species: Daphnia 0.037 mg/l - Duration h: 48
Endpoint: EL50 - Species: Pimephales Promelas 40 mg/l - Duration h: 96
Chronic aquatic toxicity:
Endpoint: NOEC - Species: Daphnia 0.0037 mg/l - Notes: 21d

Naftalene - CAS: 91-20-3
Acute aquatic toxicity:
Endpoint: LC50 2.16 mg/l - Duration h: 48 - Notes: Daphnia magna
Endpoint: EC50 - Species: Daphnia 1.96 mg/l - Duration h: 48
Notes: Daphnia magna Flow through
Endpoint: EC50 - Species: Daphnia 3.4 mg/l - Duration h: 48
Notes: Daphnia magna Static
Endpoint: LC50 - Species: Oncorynchus Mykyss 1.6 mg/l - Duration h: 96
Notes: Oncorhynchus mykiss (flow - through)
Endpoint: LC50 - Species: Pimephales Promelas 6.44 mg/l - Duration h: 96
Notes: (flow-through)
Endpoint: LC50 - Species: Oncorynchus Mykyss 2.82 mg/l - Duration h: 96
Notes: (static)
Endpoint: LC50 - Species: Pimephales Promelas 31.0265 mg/l - Duration h: 96
Notes: Lepomis macrochirus (static)
Endpoint: EC50 0.93 mg/l - Notes: 30 min
Endpoint: EC50 > 20 mg/l - Duration h: 18

12.2. Persistence and degradability

Although the product is not classified hazardous for the environment, it is believed that it's not easily biodegradable.
The product sinks in the water (if the density is >1)
The product floats on the water (if density is <1)
Product is easily dispersible in the soil.
Product is easily dispersible in water.
Product is easily absorbed in the soil.
Product evaporates and can be easily dispersed in the air.
The product floats on the water (if density is <1)
Product is adsorbed superficially in the soil.
The product evaporates difficultly.

12.3. Bioaccumulative potential

2,6-di-ter-butilfenolo - CAS: 128-39-2
Test: Kow - octanol-water coefficient 4.48
fosfato di tris(metilfenile) - CAS: 1330-78-5
Test: Kow - octanol-water coefficient 5.93
Fenolo, dodecyl-, ramificati - CAS: 121158-58-5
Test: Kow - octanol-water coefficient 7.14
Naftalene - CAS: 91-20-3
Test: Kow - octanol-water coefficient 3.3

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Endocrine disrupting properties

No endocrine disruptor substances present in concentration >= 0.1%

12.7. Other adverse effects

None

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose product (and emulsions in case of water-soluble lubrorefrigerants products) and containers sending it to approved companies, paying attention to obligations of DPR n.691 of 23/08/82 (Mandatory consortium for used oils) and Part IV of the Environmental code (D.Lgs. n. 152 of 3/4/2006) and updates
Don't discharge in sewers, tunnels or water courses. Follow current legal obligations.
Recover if possible. In so doing, comply with the local and national regulations currently in force.

SECTION 14: Transport information

14.1. UN number or ID number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

N.A.

14.4. Packing group

N.A.

14.5. Environmental hazards

N.A.

14.6. Special precautions for user

N.A.

14.7. Maritime transport in bulk according to IMO instruments

N.A.

SECTION 15: Regulatory information

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

Restriction 28

Where applicable, refer to the following regulatory provisions :

Directive 2012/18/EU (Seveso III)
Regulation (EC) nr 648/2004 (detergents).
Dir. 2004/42/EC (VOC directive)
D.M. of 13 february 2003: third list of harmonized laws concerning the implementation of directive 89/686/CEE on personal protective equipment. D. Lgs. N. 81 of 9/4/2008: implementation of article 1 of Law 3 august 2007, n. 123, on health and security safeguard in the workplace.
D.M. 14 january 2008: List of diseases for which is mandatory a report according to article 139 of Testo Unico, approved with decree of the President of the Italian Republic 30 june 1965, n. 1124, and subsequent integrations. D.P.R. n. 689 of 26/05/1959: Determination of companies and processes subject to control of the Fire protection command, to enhance fire protection. Directive 98/8/CE of 16 february 1998 on placing of biocidal products on the market.

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1

None

15.2. Chemical safety assessment

No Chemical Safety Assessment has been carried out for the mixture.

SECTION 16: Other information

Don't use this product for uses different from those identified. In this case user may be subject to risk not evaluated.

This sheet has been compiled in accordance to Guidance on preparation of Safety Data Sheets for lubricants, prepared by the Industrial Group of Lube Companies (GAIL) - Website: http://aispec.federchimica.it
Full text of phrases referred to in Section 3:

H304 May be fatal if swallowed and enters airways.
H332 Harmful if inhaled.
H315 Causes skin irritation.
H411 Toxic to aquatic life with long lasting effects.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.
H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
H318 Causes serious eye damage.
H360 May damage fertility or the unborn child.
H314 Causes severe skin burns and eye damage.
H302 Harmful if swallowed.
H351 Suspected of causing cancer.

Hazard class and hazard category	**Code**	**Description**
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Skin Corr. 1C	3.2/1C	Skin corrosion, Category 1C
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Dam. 1	3.3/1	Serious eye damage, Category 1
Carc. 2	3.6/2	Carcinogenicity, Category 2
Repr. 1B	3.7/1B	Reproductive toxicity, Category 1B
Repr. 2	3.7/2	Reproductive toxicity, Category 2
Aquatic Acute 1	4.1/A1	Acute aquatic hazard, category 1
Aquatic Chronic 1	4.1/C1	Chronic (long term) aquatic hazard, category 1
Aquatic Chronic 2	4.1/C2	Chronic (long term) aquatic hazard, category 2
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

This safety data sheet has been completely updated in compliance to Regulation 2020/878.
Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Classification according to Regulation (EC) Nr. 1272/2008	**Classification procedure**
Aquatic Chronic 3, H412	Calculation method

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of

	Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
PNEC:	Predicted No Effect Concentration.
RID:	Regulation Concerning the International Transport of Dangerous Goods by Rail.
STEL:	Short Term Exposure limit.
STOT:	Specific Target Organ Toxicity.
TLV:	Threshold Limiting Value.
TWA:	Time-weighted average
WGK:	German Water Hazard Class.