

#### Safety Data Sheet dated 19/5/2023, version 7

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

1.1. Product identifier

Mixture identification:

Trade name: DIESEL MIX

Trade code: 9849

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

Recommended use:

Diesel additive

1.3. Details of the supplier of the safety data sheet

Supplier:

Arexons S.p.A.

via Antica di Cassano, 23, 20063

Cernusco sul Naviglio (MI), Italy

Arexons S.p.A.

Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306

Competent person responsible for the safety data sheet:

arexons@arexons.it

1.4. Emergency telephone number

Arexons S.p.A.

Tel. +39 (0)2/924361 - Fax +39 (0)2/92436306

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

In Ireland: Beaumont Hospital - National Poisons Information Centre 01 809 2166 (7days, 8:00 -

22:00)

In South Africa: Poison Information Helpline 0861 555 777

In Malta: emergency number 112

#### **SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

- ♦ Warning, STOT SE 3, May cause drowsiness or dizziness.
- Danger, Asp. Tox. 1, May be fatal if swallowed and enters airways.
- Aquatic Chronic 2, Toxic to aquatic life with long lasting effects.

EUH066 Repeated exposure may cause skin dryness or cracking.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

Precautionary statements:

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

P102 Keep out of reach of children.

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P103 Read carefully and follow all instructions.

P271 Use only outdoors or in a well-ventilated area.

P273 Avoid release to the environment.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER.

P331 Do NOT induce vomiting.

P391 Collect spillage.

P405 Store locked up.

P501 Dispose of contents/container in accordance with applicable regulations.

#### **Special Provisions:**

EUH066 Repeated exposure may cause skin dryness or cracking.

PACK1 The packing must be featured by a safety lock for children.

PACK2 The packing must have tactive indications of danger for blind people.

#### Contains

Distillates (petroleum), hydrotreated light

Hydrocarbons, C10, aromatics, <1% naphthalene

Hydrocarbons, C10, aromatics, >1% naphthalene

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

None

#### 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:

45.4 % Distillates (petroleum), hydrotreated light

REACH No.: 01-2119456620-43, EC: 926-141-6

♦ 3.10/1 Asp. Tox. 1 H304

**EUH066** 

#### 38 % Hydrocarbons, C10, aromatics, <1% naphthalene

REACH No.: 01-2119463583-34, Index number: 649-424-00-3, EC: 918-811-1

- ♦ 3.10/1 Asp. Tox. 1 H304
- ◆ 3.8/3 STOT SE 3 H336
- 4.1/C2 Aquatic Chronic 2 H411

EUH066

DECLP (CLP)\*

#### 11.9 % Hydrocarbons, C10, aromatics, >1% naphthalene

REACH No.: 01-2119463588-24, EC: 919-284-0

- ♦ 3.10/1 Asp. Tox. 1 H304
- 4.1/C2 Aquatic Chronic 2 H411
- ◆ 3.8/3 STOT SE 3 H336
- 2.6/3 Flam. Liq. 3 H226

#### 0.73 % 1,2,4-trimethylbenzene

Index number: 601-043-00-3, CAS: 95-63-6, EC: 202-436-9

- 2.6/3 Flam. Liq. 3 H226
- ◆ 3.1/4/Inhal Acute Tox. 4 H332
- 1 3.2/2 Skin Irrit. 2 H315

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- ◆ 3.3/2 Eye Irrit. 2 H319
- ◆ 3.8/3 STOT SE 3 H335
- 4.1/C2 Aquatic Chronic 2 H411

#### 0.73 % naphthalene

Index number: 601-052-00-2, CAS: 91-20-3, EC: 202-049-5

- 3.6/2 Carc. 2 H351
- ◆ 3.1/4/Oral Acute Tox. 4 H302
- ♦ 4.1/A1 Aquatic Acute 1 H400
- 4.1/C1 Aquatic Chronic 1 H410
- 2.7/2 Flam, Sol. 2 H228

#### 0.365 % Benzene, 1,3,5-trimethyl-

CAS: 108-67-8, EC: 203-604-4

- 2.6/3 Flam. Liq. 3 H226
- 4 3.2/2 Skin Irrit. 2 H315
- 4 3.3/2 Eye Irrit. 2 H319
- ◆ 3.8/3 STOT SE 3 H335
- 4.1/C2 Aquatic Chronic 2 H411

#### 0.146 % 1,2,3-Trimetilbenzene

EC: 208-394-8

- 2.6/3 Flam. Liq. 3 H226
- ◆ 3.3/2 Eye Irrit. 2 H319
- 1 3.2/2 Skin Irrit. 2 H315

#### 760 ppm 1,2,4-trimethylbenzene

Index number: 601-043-00-3, CAS: 95-63-6, EC: 202-436-9

- 2.6/3 Flam. Liq. 3 H226
- ◆ 3.1/4/Inhal Acute Tox. 4 H332
- 1 3.2/2 Skin Irrit. 2 H315
- ◆ 3.3/2 Eye Irrit. 2 H319
- ◆ 3.8/3 STOT SE 3 H335
- 4.1/C2 Aquatic Chronic 2 H411

#### 500 ppm naphthalene

Index number: 601-052-00-2, CAS: 91-20-3, EC: 202-049-5

- 2.7/1 Flam. Sol. 1 H228
- ◆ 3.1/4/Oral Acute Tox. 4 H302
- ♦ 3.6/2 Carc. 2 H351
- ♦ 4.1/A1 Aquatic Acute 1 H400
- 4.1/C1 Aquatic Chronic 1 H410

#### 160 ppm Trimethylbenzene

CAS: 25551-13-7, EC: 247-099-9

- ◆ 2.6/3 Flam. Liq. 3 H226
- 3.1/4/Dermal Acute Tox. 4 H312
- 3.1/4/Oral Acute Tox. 4 H302
- ◆ 3.3/2 Eye Irrit. 2 H319

\*DECLP (CLP): Substance classified in accordance with Note P, Annex VI of EC Regulation (EC) 1272/2008. The harmonised classification as a carcinogen or mutagen applies unless it can be shown that the substance contains less than 0,1 % w/w benzene (Einecs No 200-753-7), in which case a classification in accordance with Title II of this Regulation shall be performed also for those hazard classes. Where the substance is not classified as a carcinogen or mutagen, at least the precautionary statements (P102-)P260-P262-P301 + P310-P331 shall apply.



#### **SECTION 4: First aid measures**

4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

Areas of the body that have - or are only even suspected of having - come into contact with the product must be rinsed immediately with plenty of running water and possibly with soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

In case of eyes contact:

In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

In case of Ingestion:

Do NOT induce vomiting.

In case of Inhalation:

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

None

#### **SECTION 5: Firefighting measures**

5.1. Extinguishing media

Appropriate Extinguishing Media:

To carbon dioxide.

Foam

To dust.

Water spray.

Not Recommended Extinguishing Media:

Do not use direct water jets.

5.2. Special hazards arising from the substance or mixture

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

5.3. Advice for firefighters

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.

#### **SECTION 6: Accidental release measures**

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove persons to safety.

See protective measures under point 7 and 8.

6.2. Environmental precautions

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

Wash with plenty of water.

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6.4. Reference to other sections See also section 8 and 13

#### **SECTION 7: Handling and storage**

7.1. Precautions for safe handling

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

Store in hermetically sealed containers, preferably in a cool place, away from sources of heat and direct sunlight.

Avoid exposure to direct sunlight.

Only store in the original container.

Keep away from food, drink and feed.

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

Hydrocarbons, C10, aromatics, <1% naphthalene - Index number: 649-424-00-3

ACGIH - TWA: 200 mg/m3

Hydrocarbons, C10, aromatics, >1% naphthalene

EU - TWA: 200 mg/m3

1,2,4-trimethylbenzene - CAS: 95-63-6

EU - TWA(8h): 100 mg/m3, 20 ppm

ACGIH - TWA(8h): 10 ppm - Notes: A4 - CNS impair, hematologic eff

naphthalene - CAS: 91-20-3

ACGIH - TWA(8h): 10 ppm - Notes: Skin, A3 - URT irr, cataracts, hemolytic anemia

EU - TWA(8h): 50 mg/m3, 10 ppm Benzene, 1,3,5-trimethyl- - CAS: 108-67-8

EU - TWA(8h): 100 mg/m3, 20 ppm

ACGIH - TWA(8h): 10 ppm - Notes: CNS impair, hematologic eff

1,2,3-Trimetilbenzene

EU - TWA: 100 mg/m3, 20 ppm

1,2,4-trimethylbenzene - CAS: 95-63-6

EU - TWA(8h): 100 mg/m3, 20 ppm

ACGIH - TWA(8h): 10 ppm - Notes: A4 - CNS impair, hematologic eff

naphthalene - 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

Trimethylbenzene - CAS: 25551-13-7

EU - TWA(8h): 100 mg/m3, 20 ppm

ACGIH - TWA(8h): 10 ppm - Notes: CNS impair, hematologic eff

**DNEL Exposure Limit Values** 

Hydrocarbons, C10, aromatics, <1% naphthalene - Index number: 649-424-00-3

Consumer: 7.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects Worker Professional: 151 mg/m3 - Consumer: 32 mg/m3 - Exposure: Human Inhalation -



Frequency: Long Term, systemic effects

Worker Professional: 12.5 mg/kg - Consumer: 7.5 mg/kg - Exposure: Human Dermal -

Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

N.A.

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.

Compliant with EN 166

Protection for skin:

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:

Nitrile or Viton gloves.

Compliant with EN 374.

Respiratory protection:

Use adequate protective respiratory equipment.

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:	Dark brown		
Odour:	Characteristic		
Melting point/freezing point:	N.A.		
Boiling point or initial boiling point and boiling range:	N.A.		
Flammability:	N.A.		
Lower and upper explosion limit:	N.A.		
Flash point:	N.A.		
Auto-ignition temperature:	N.A.		
Decomposition temperature:	N.A.		
pH:	N.A.		
Kinematic viscosity:	<= 14 mm2/ sec (40 °C)		
Solubility in water:	N.A.		



Solubility in oil:	N.A.		
Partition coefficient n-octanol/water (log value):	N.A.		
Vapour pressure:	N.A.		
Density and/or relative density:	N.A.		
Relative vapour density:	N.A.		
Particle characteristics:			
Particle size:	N.A.		

9.2. Other information

No other relevant information

#### **SECTION 10: Stability and reactivity**

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

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:

DIESEL MIX 500 ML

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

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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

The product is classified: STOT SE 3 H336

i) STOT-repeated exposure

Not classified

Based on available data, the classification criteria are not met

j) aspiration hazard

The product is classified: Asp. Tox. 1 H304

Toxicological information of the main substances found in the product:

Distillates (petroleum), hydrotreated light

a) acute toxicity:

Test: LC50 - Route: Inhalation - Species: Rat > 5000 mg/m3 - Duration: 8h

Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg

b) skin corrosion/irritation:

Test: OECD TG 404 - Route: Skin Negative

c) serious eye damage/irritation:

Test: OECD TG 405 - Route: EYE Negative

d) respiratory or skin sensitisation:
 Test: Inhalation Sesitization 3

Test: Skin Sensitization 3

j) aspiration hazard:

Test: May be fatal if swallowed and enters airways (physical-chemical properties) - Route:

**Oral Positive** 

Hydrocarbons, C10, aromatics, >1% naphthalene

b) skin corrosion/irritation:

Test: Skin Sensitization Negative

i) STOT-repeated exposure:

Positive

i) aspiration hazard:

Test: Respiratory Tract Irritant Positive

1,2,4-trimethylbenzene - CAS: 95-63-6

h) STOT-single exposure:

Test: Respiratory Tract Irritant Positive

naphthalene - CAS: 91-20-3

e) germ cell mutagenicity:

Species: vitro Positive Species: vivo Negative

f) carcinogenicity:

Species: Rat Positive

i) STOT-repeated exposure:

Test: oecd 16 Positive

Benzene, 1,3,5-trimethyl- - CAS: 108-67-8

h) STOT-single exposure:

Test: Respiratory Tract Irritant Positive

1,2,3-Trimetilbenzene

g) reproductive toxicity:

Test: Respiratory Tract Irritant Positive

1,2,4-trimethylbenzene - CAS: 95-63-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat 5000 mg/kg Test: LD50 - Route: Skin - Species: Rabbit 3160 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat 18000 mg/l - Duration: 4h



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. Distillates (petroleum), hydrotreated light

a) Aquatic acute toxicity:

Endpoint: EL0 - Species: Daphnia 1000 mg/l - Duration h: 48 Endpoint: EL0 - Species: Algae 1000 mg/l - Duration h: 72 Endpoint: CE7 - Species: Fish 1000 mg/l - Duration h: 96

Hydrocarbons, C10, aromatics, >1% naphthalene

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 2 mg/l - Duration h: 96 Endpoint: EC50 - Species: Daphnia 3 mg/l - Duration h: 48 Endpoint: EC50 - Species: Algae 1.1 mg/l - Duration h: 96

1,2,4-trimethylbenzene - CAS: 95-63-6

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish 7.72 mg/l - Duration h: 96 Endpoint: EC50 - Species: Daphnia 3.6 mg/l - Duration h: 48

naphthalene - CAS: 91-20-3 a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia 3.4 mg/l - Duration h: 48 Endpoint: LC50 - Species: Fish 0.51 mg/l - Duration h: 96

Benzene , 1,3,5-trimethyl- - CAS: 108-67-8

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia 6 mg/l - Duration h: 48 Endpoint: EC50 - Species: Algae 25 mg/l - Duration h: 48

1,2,4-trimethylbenzene - CAS: 95-63-6

b) Aquatic chronic toxicity:

Endpoint: LC50 - Species: Daphnia 6.14 mg/l - Duration h: 48

12.2. Persistence and degradability

None

Hydrocarbons, C10, aromatics, >1% naphthalene

Biodegradability: 4 - Test: BIOGDG10 - Duration: 28gg - %: 58

12.3. Bioaccumulative potential

N.A.

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

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

Additional disposal information:

Reuse if possible. Act in accordance with the local and national laws in force.

CER 14 06 03 other solvents and solvent mixtures.

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Contaminated packaging must be emptied as far as possible. After cleaning, send to an authorised centre for recycling or disposal.

#### **SECTION 14: Transport information**



14.1. UN number or ID number

ADR-UN Number: 3082 IATA-UN Number: 3082 IMDG-UN Number: 3082

14.2. UN proper shipping name

ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.(naphthalene, Hydrocarbons, C10, aromatics, >1%

naphthalene)

IATA-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.(naphthalene, Hydrocarbons, C10, aromatics, >1%

naphthalene)

IMDG-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.(naphthalene, Hydrocarbons, C10, aromatics, >1%

naphthalene)

14.3. Transport hazard class(es)

ADR-Class: 9

ADR - Hazard identification number: 90

IATA-Class: 9
IATA-Label: 9
IMDG-Class: 9

14.4. Packing group

ADR-Packing Group: III IATA-Packing group: III IMDG-Packing group: III

14.5. Environmental hazards

ADR-Enviromental Pollutant: Yes

IMDG-Marine pollutant: Marine Pollutant

IMDG-EmS: F-A, S-F

14.6. Special precautions for user

ADR-Subsidiary hazards: -

ADR-S.P.: 274 335 375 601

ADR-Transport category (Tunnel restriction code): 3 (-)

IATA-Passenger Aircraft: 964
IATA-Subsidiary hazards: IATA-Cargo Aircraft: 964

IATA-S.P.: A97 A158 A197

IATA-ERG: 9L IMDG-Subsidiary hazards: -

IMDG-Stowage and handling: Category A

IMDG-Segregation: -

14.7. Maritime transport in bulk according to IMO instruments

N.A.

Limited Quantity: 5 L Exempted Quantity: E1



#### **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) Regulation (EU) n. 2021/849 (ATP 17 CLP)

Regulation (EU) n. 2022/692 (ATP 18 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 40

Restriction 75

Volatile Organic compounds - VOCs = 97.40 %

Volatile Organic compounds - VOCs = 973.96 g/Kg

Volatile Organic compounds - VOCs = 830.79 g/l

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)

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

Seveso III category according to Annex 1, part 1

Product belongs to category: E2

#### 15.2. Chemical safety assessment

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

Substances for which a Chemical Safety Assessment has been carried out:

None

#### **SECTION 16: Other information**

Text of phrases referred to under heading 3:

H304 May be fatal if swallowed and enters airways.

EUH066 Repeated exposure may cause skin dryness or cracking.

H336 May cause drowsiness or dizziness.

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H411 Toxic to aquatic life with long lasting effects.

H226 Flammable liquid and vapour.

H332 Harmful if inhaled.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H351 Suspected of causing cancer.

H302 Harmful if swallowed.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H228 Flammable solid.

H312 Harmful in contact with skin.

Hazard class and hazard category	Code	Description
Flam. Liq. 3	2.6/3	Flammable liquid, Category 3
Flam. Sol. 1	2.7/1	Flammable solid, Category 1
Flam. Sol. 2	2.7/2	Flammable solid, Category 2
Acute Tox. 4	3.1/4/Dermal	Acute toxicity (dermal), Category 4
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 Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Carc. 2	3.6/2	Carcinogenicity, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
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

Paragraphs modified from the previous revision:

SECTION 3: Composition/information on ingredients

SECTION 8: Exposure controls/personal protection

SECTION 15: Regulatory information

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
STOT SE 3, H336	Calculation method
Asp. Tox. 1, H304	Calculation method
Aquatic Chronic 2, H411	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.

NA: Not applicable

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.

## Exposure Scenario, 18/07/2019

Substance identity	
Chemical name	Idrocarburi , C11- C14 , n-alcani , isoalcani, ciclici,< 2% aromatici.
CAS No.	64742-47-8
EINECS No.	926-141-6

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- 1. **ES 1** Use at industrial site
- 2. **ES 2** Widespread use by professional workers
- 3. **ES 3** Consumer use; Fuels (PC13)

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1. ES 1 Use	at industrial site		
1.1 TITLE SECTION			
Exposure Scenario name	Fuel		
Date - Version	18/07/2019 - 1.0		
Life Cycle Stage	Use at industrial site		
Main user group	Industrial uses		
Sector(s) of use	Industrial uses (SU3)		
Environment Contributing Scenario			
CS1 Covered by		ERC7	
Worker Contributing Scenario			
CS2 Industrial		PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16	
1.2 Conditions of use affecting exposure			
1.2. CS1: Environment Contr	1.2. CS1: Environment Contributing Scenario: Covered by (ERC7)		
Environmental release categories	Use of functional fluid at industrial site (ERC7)		
1.2. CS2: Worker Contributing Scenario: Industrial (PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16)			
Process Categories	Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent		

containment condition - Transfer of substance or mixture (charging and discharging) at nondedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated

facilities - Use of fuels (PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16)

#### Product (article) characteristics

#### Physical form of product:

Liquid

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

#### **Duration:**

Covers daily exposures up to 8 hours

### 1.3 Exposure estimation and reference to its source

N/A

# 1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

#### Guidance to check compliance with the exposure scenario:

### 2. ES 2 Widespread use by professional workers

#### 2.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	18/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses

#### **Environment Contributing Scenario**

CS1 Solids based process ERC9a - ERC9b

#### **Worker Contributing Scenario**

CS2 General use from professional operators

PROC1 - PROC2 - PROC3 - PROC8a -

#### PROC8b - PROC16

### 2.2 Conditions of use affecting exposure

#### 2.2. CS1: Environment Contributing Scenario: Solids based process (ERC9a, ERC9b)

<b>Environmental release</b>	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor)
categories	(ERC9a, ERC9b)

## 2.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16)

### **Process Categories**

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Use of fuels (PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16)

#### Product (article) characteristics

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

#### **Duration:**

Covers daily exposures up to 8 hours

### 2.3 Exposure estimation and reference to its source

N/A

# 2.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

#### Guidance to check compliance with the exposure scenario:

### 3. ES 3 Consumer use; Fuels (PC13)

#### 3.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	18/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)
Product Categories	Fuels (PC13)

#### **Environment Contributing Scenario**

CS1 Covered by ERC9a - ERC9b

#### **Consumer Contributing Scenario**

CS2 Consumer PC13

### 3.2 Conditions of use affecting exposure

#### 3.2. CS1: Environment Contributing Scenario: Covered by (ERC9a, ERC9b)

**Environmental release** Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) categories (ERC9a, ERC9b)

#### 3.2. CS2: Consumer Contributing Scenario: Consumer (PC13)

**Product Categories** Fuels (PC13)

### 3.3 Exposure estimation and reference to its source

N/A

# 3.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

#### Guidance to check compliance with the exposure scenario:

## Exposure Scenario, 18/07/2019

Substance identity	
Chemical name	Idrocarburi, C10, aromatici, < 1% naftalene
EINECS No.	918-811-1

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- 1. **ES 1** Use at industrial site
- 2. **ES 2** Widespread use by professional workers
- 3. **ES 3** Consumer use; Fuels (PC13)

### 1. ES 1 Use at industrial site

#### 1.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	18/07/2019 - 1.0
Life Cycle Stage	Use at industrial site
Main user group	Industrial uses
Sector(s) of use	Industrial uses (SU3)

#### **Environment Contributing Scenario**

CS1 Covered by ERC7

#### **Worker Contributing Scenario**

PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16

### 1.2 Conditions of use affecting exposure

#### 1.2. CS1: Environment Contributing Scenario: Covered by (ERC7)

**Environmental release** categories

Use of functional fluid at industrial site (ERC7)

#### Amount used, frequency and duration of use (or from service life)

#### Amounts used:

Annual site tonnage 2500 t(onnes)/year Daily amount per site 2500 kg/day

#### Maximum allowable site tonnage (MSafe): 999999 kg/day

Technical and organisational conditions and measures

#### Control measures to prevent releases

Treat air emission to provide the required removal efficiency of (%):

Air - minimum efficiency of: 95 %

Prevent discharge of undissolved substance to or recover from onsite wastewater.

#### Conditions and measures related to sewage treatment plant

#### STP type:

Municipal Sewage Treatment Plant Water - minimum efficiency of: = 94.6 %

STP effluent (m³/day): 2000

#### Conditions and measures related to treatment of waste (including article waste)

#### Waste treatment

External treatment and disposal of waste should comply with applicable local and/or national regulations.

#### Other conditions affecting environmental exposure

Local marine water dilution factor: 100 Local freshwater dilution factor: 10

#### 1.2. CS2: Worker Contributing Scenario: Industrial (PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16)

### **Process Categories**

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent

containment condition - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Use of fuels (PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16)

#### Product (article) characteristics

#### Physical form of product:

Liquid

#### Vapour pressure:

< 5 hPa

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

#### Amount used, frequency and duration of use/exposure

#### **Duration:**

Covers daily exposures up to 8 hours

#### Technical and organisational conditions and measures

#### **Technical and organisational measures**

Handle substance within a closed system.

Drain down system prior to equipment break-in or maintenance.

Store substance within a closed system.

#### Other conditions affecting worker exposure

**Temperature:** Assumes use at not more than 20 °C above ambient temperature.

#### 1.3 Exposure estimation and reference to its source

#### 1.3. CS1: Environment Contributing Scenario: Covered by (ERC7)

Release route	Release rate	Release estimation method
Air	0.00025 %	N/A
Air	1E-05 %	N/A

# 1.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

#### Guidance to check compliance with the exposure scenario:

### 2. ES 2 Widespread use by professional workers

#### 2.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	18/07/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

#### **Environment Contributing Scenario**

CS1 Covered by ERC9a - ERC9b

#### **Worker Contributing Scenario**

CS2 General use from professional operators

PROC1 - PROC2 - PROC3 - PROC8a -

PROC8b - PROC16

### 2.2 Conditions of use affecting exposure

#### 2.2. CS1: Environment Contributing Scenario: Covered by (ERC9a, ERC9b)

**Environmental release** Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) categories (ERC9a, ERC9b)

Amount used, frequency and duration of use (or from service life)

#### **Amounts used:**

Annual site tonnage 0.0006 t(onnes)/year Annual site tonnage 0.00017 kg/day

Maximum allowable site tonnage (MSafe): 0.048 kg/day

**Release type:** Continuous release

Emission days: 365 days per year

#### Technical and organisational conditions and measures

#### Control measures to prevent releases

Prevent discharge of undissolved substance to or recover from onsite wastewater.

Do not apply industrial sludge to natural soils.

#### Conditions and measures related to sewage treatment plant

#### STP type:

Municipal Sewage Treatment Plant Water - minimum efficiency of: = 94.6 %

STP effluent (m³/day): 2000

#### Conditions and measures related to treatment of waste (including article waste)

#### Waste treatment

Do not apply industrial sludge to natural soils.

External treatment and disposal of waste should comply with applicable local and/or national regulations.

#### Other conditions affecting environmental exposure

Local marine water dilution factor: 100 Local freshwater dilution factor: 10

#### 2.2. CS2: Worker Contributing Scenario: General use from professional operators (PROC1, PROC2, PROC3,

PROC8a, PROC8b, PROC16)

Process Categories

Chemical production or refinery in closed process without likelihood of exposure or processes with equivalent containment conditions - Chemical production or refinery in

closed continuous process with occasional controlled exposure or processes with equivalent containment conditions - Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment condition - Transfer of substance or mixture (charging and discharging) at non-dedicated facilities - Transfer of substance or mixture (charging and discharging) at dedicated facilities - Use of fuels (PROC1, PROC2, PROC3, PROC8a, PROC8b, PROC16)

#### **Product (article) characteristics**

#### Physical form of product:

Liquid

#### Vapour pressure:

< 5 hPa

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

#### Amount used, frequency and duration of use/exposure

#### **Duration:**

Covers daily exposures up to 8 hours

#### Technical and organisational conditions and measures

#### **Technical and organisational measures**

Handle substance within a closed system.

Use drum pumps.

Drain down system prior to equipment break-in or maintenance.

#### Other conditions affecting worker exposure

**Temperature:** Assumes use at not more than 20 °C above ambient temperature.

### 2.3 Exposure estimation and reference to its source

#### 2.3. CS1: Environment Contributing Scenario: Covered by (ERC9a, ERC9b)

Release route	Release rate	Release estimation method
Air	0.001 %	N/A
Water	1E-05 %	N/A
soil	1E-05 %	N/A

# 2.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

#### Guidance to check compliance with the exposure scenario:

### 3. ES 3 Consumer use; Fuels (PC13)

#### 3.1 TITLE SECTION

Exposure Scenario name	Fuel additive
Date - Version	18/07/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Product Categories	Fuels (PC13)

#### **Environment Contributing Scenario**

CS1 Covered by	ERC9a - ERC9b		
Consumer Contributing Scenario			
CS2 Liquid: Automotive Refuelling	PC13		
CS3 Liquid, Garden equipment - Use	PC13		
CS4 Liquid: Garden equipment - Refuelling	PC13		
CS5 Liquid: Home space heater fuel	PC13		
CS6 Liquid: Lamp oil	PC13		

### 3.2 Conditions of use affecting exposure

#### 3.2. CS1: Environment Contributing Scenario: Covered by (ERC9a, ERC9b)

**Environmental release** Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) categories (ERC9a, ERC9b)

#### Amount used, frequency and duration of use (or from service life)

#### Amounts used:

Annual site tonnage 1.2 t(onnes)/year Daily amount per site 3.2 t(onnes)/year

Maximum allowable site tonnage (MSafe): 140 kg/day

Release type: Continuous release

Emission days: 365 days per year

#### Conditions and measures related to treatment of waste (including article waste)

#### Waste treatment

Do not apply industrial sludge to natural soils.

External treatment and disposal of waste should comply with applicable local and/or national regulations.

#### Other conditions affecting environmental exposure

Local marine water dilution factor: 100 Local freshwater dilution factor: 10

#### 3.2. CS2: Consumer Contributing Scenario: Liquid: Automotive Refuelling (PC13)

**Product Categories** Fuels (PC13)

#### **Product (article) characteristics**

#### Physical form of product:

Liquid

#### Vapour pressure:

< 5 hPa

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

#### Amount used, frequency and duration of use/exposure

#### Amounts used:

Amount per use 3750 g

#### **Duration:**

Exposure duration 2 min

#### Frequency:

Use frequency 52 days per year

#### Other conditions affecting consumers exposure

Room size: Covers use in room size of 100 m<sup>3</sup>

#### 3.2. CS3: Consumer Contributing Scenario: Liquid, Garden equipment - Use (PC13)

**Product Categories** 

Fuels (PC13)

#### **Product (article) characteristics**

#### Physical form of product:

Liquid

#### Vapour pressure:

< 5 hPa

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

#### Amount used, frequency and duration of use/exposure

#### Amounts used:

Amount per use 750 g

#### **Duration:**

Exposure duration 120 min

#### Frequency:

Use frequency 26 days per year

#### Other conditions affecting consumers exposure

Room size: Covers use in room size of 100 m<sup>3</sup>

#### 3.2. CS4: Consumer Contributing Scenario: Liquid: Garden equipment - Refuelling (PC13)

**Product Categories** 

Fuels (PC13)

#### **Product (article) characteristics**

#### Physical form of product:

Liquid

#### Vapour pressure:

< 5 hPa

#### **Concentration of substance in product:**

Covers percentage substance in the product up to 100 %.

#### Amount used, frequency and duration of use/exposure

#### Amounts used:

Amount per use 750 g

**Duration:** 

Exposure duration 3 min

Frequency:

Use frequency 26 days per year

Other conditions affecting consumers exposure

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

3.2. CS5: Consumer Contributing Scenario: Liquid: Home space heater fuel (PC13)

Product Categories Fuels (PC13)

**Product (article) characteristics** 

Physical form of product:

Liquid

Vapour pressure:

< 5 hPa

**Concentration of substance in product:** 

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

**Amounts used:** 

Amount per use 3000 g

**Duration:** 

Exposure duration < 1 min

Frequency:

Use frequency 52 days per year

Other conditions affecting consumers exposure

Room size: Covers use in a one car garage (>34 m³) under typical ventilation.

Temperature: 20°C

3.2. CS6: Consumer Contributing Scenario: Liquid: Lamp oil (PC13)

Product Categories Fuels (PC13)

**Product (article) characteristics** 

Physical form of product:

Liquid

Vapour pressure:

< 5 hPa

**Concentration of substance in product:** 

Covers percentage substance in the product up to 100 %.

Amount used, frequency and duration of use/exposure

**Amounts used:** 

Amount per use 100 g

**Duration:** 

Exposure duration < 1 min

Frequency:

Use frequency 52 days per year

Other conditions affecting consumers exposure

Temperature: 20°C

Ventilation rate: Covers use under typical household ventilation.

### 3.3 Exposure estimation and reference to its source

N/A

# 3.4 Guidance to DU to evaluate whether he works inside the boundaries set by the ES

#### Guidance to check compliance with the exposure scenario: