

#### Safety Data Sheet dated 9/11/2021, version 11

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

1.1. Product identifier

Mixture identification:

Trade name: BOOSTER Petrol

Trade code: 31043

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

Recommended use:

Fuel 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):

- 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:

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.

P103 Read carefully and follow all instructions.

P273 Avoid release to the environment.

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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

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:

>= 90% Distillates (petroleum), hydrotreated light

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

♦ 3.10/1 Asp. Tox. 1 H304

**EUH066** 

>= 3% - < 5% Hydrocarbons ,C10, aromatics, > 1% naphthalene

EC: 919-284-0

◆ 3.8/3 STOT SE 3 H336

♦ 3.10/1 Asp. Tox. 1 H304

4.1/C2 Aquatic Chronic 2 H411

**EUH066** 

>= 0.25% - < 0.5% naphthalene

Index number: 601-052-00-2, 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 M=1.

>= 0.25% - < 0.5% Distillates (petroleum), hydro- treated light; Kerosine - unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 oC to 290 oC (302 oF to 554 oF).]

REACH No.: 01-2119484819-18, Index number: 649-422-00-2, CAS: 64742-47-8, EC: 265-149-8 3.10/1 Asp. Tox. 1 H304

>= 0.25% - < 0.5% Distillates (petroleum), hydro- treated light; Kerosine - unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through

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C16 and boiling in the range of approxi mately 150 oC to 290 oC (302 oF to 554 oF).]

REACH No.: 01-2119484819-18, Index number: 649-422-00-2, CAS: 64742-47-8, EC: 265-149-8

♦ 3.10/1 Asp. Tox. 1 H304

>= 0.25% - < 0.5% Ferrocene

REACH No.: 01-2119978280-34, CAS: 102-54-5, EC: 203-039-3

- ◆ 2.7/1 Flam. Sol. 1 H228
- ◆ 3.1/4/Oral Acute Tox. 4 H302
- ◆ 3.1/4/Inhal Acute Tox. 4 H332
- ♦ 3.7/1B Repr. 1B H360FD
- ♦ 3.9/2 STOT RE 2 H373 (inhalation, oral)
- 4.1/C1 Aquatic Chronic 1 H410 M=10.

#### >= 0.1% - < 0.25% 1,2,4-trimethylbenzene

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

- 2.6/3 Flam. Lig. 3 H226
- ◆ 3.1/4/Inhal Acute Tox. 4 H332
- 1.2/2 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

#### >= 0.02% - < 0.05% 2,2'-iminodiethanol; diethanolamine

Index number: 603-071-00-1, CAS: 111-42-2, EC: 203-868-0

- 3.1/4/Oral Acute Tox. 4 H302
- ♦ 3.6/2 Carc. 2 H351
- ♦ 3.9/2 STOT RE 2 H373
- ♦ 3.3/1 Eye Dam. 1 H318
- ◆ 3.2/2 Skin Irrit. 2 H315
- 4.1/C3 Aquatic Chronic 3 H412

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

4.1. Description of first aid measures

In case of skin contact:

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 with plenty of water and 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.

To dust.

Foam

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.

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

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

Distillates (petroleum), hydrotreated light

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20101.12 - TWA: 1200 mg/m3, 165 ppm

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 Distillates (petroleum), hydro- treated light; Kerosine - unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 oC to 290 oC (302 oF to 554 oF).] - CAS: 64742-47-8

TLV TWA - mg/m3 200 ,skin A3

TLV STEL - Skin A3

Distillates (petroleum), hydro- treated light; Kerosine - unspecified; [A complex combination of hydrocarbons obtained by treating a petroleum fraction with hydrogen in the presence of a catalyst. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approxi mately 150 oC to 290 oC (302 oF to 554 oF).] - CAS: 64742-47-8

TLV TWA - mg/m3 200 ,skin A3

TLV STEL - Skin A3

Ferrocene - CAS: 102-54-5

ACGIH - TWA(8h): 10 mg/m3 - Notes: Liver dam

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

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

2,2'-iminodiethanol; diethanolamine - CAS: 111-42-2

ACGIH - TWA(8h): 1 mg/m3 - Notes: (IFV), Skin, A3 - Liver and kidney dam

EU - TWA(8h): 15 mg/m3, 3 ppm - STEL(): 30 mg/m3, 6 ppm

**DNEL Exposure Limit Values** 

Hydrocarbons ,C10, aromatics, > 1% naphthalene

Consumer: 8.13 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects Worker Professional: 3.25 mg/m3 - Consumer: 10.2 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 23.4 mg/kg - Consumer: 42.4 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

2,2'-iminodiethanol; diethanolamine - CAS: 111-42-2

Worker Professional: 0.13 mg/kg - Consumer: 0.07 mg/kg - Exposure: Human Dermal Consumer: 0.06 mg/kg - Exposure: Human Oral

PNEC Exposure Limit Values

Hydrocarbons ,C10, aromatics, > 1% naphthalene

Target: Fresh Water - Value: 0.001 mg/l Target: Marine water - Value: 0.001 mg/l

2,2'-iminodiethanol; diethanolamine - CAS: 111-42-2

Target: Fresh Water - Value: 0.02 mg/l

8.2. Exposure controls

Eye protection:

Eye glasses with side protection.

Compliant with EN 166

Protection for skin:

protective clothing

Protection for hands:

Nitrile or Viton gloves.

Compliant with EN 374.

Respiratory protection:

Not needed for normal use.

Thermal Hazards:

None

Environmental exposure controls:

None

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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:	Orange		
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:	>65°C		
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:	0.8205 g/ml		
Relative vapour density:	N.A.		
Particle characteristics:			
Particle size:	N.A.		
9.2. Other information  No other relevant info  Viscosity:	rmation <7 cSt		



#### **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

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:

**BOOSTER Petrol** 

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

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 i) aspiration hazard: Test: May be fatal if swallowed and enters airways (physical-chemical properties) - Route: Oral Positive naphthalene - CAS: 91-20-3 a) acute toxicity: Test: LD50 - Route: Oral - Species: Rat > 500 mg/kg Test: LD50 - Route: Skin - Species: Rabbit > 2500 mg/kg 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 2,2'-iminodiethanol; diethanolamine - CAS: 111-42-2 a) acute toxicity: Test: LC50 - Route: Inhalation - Species: Rat 3.35 mg/l - Duration: 4h Test: LD50 - Route: Skin - Species: Rabbit 12200 mg/kg Test: LD50 - Route: Oral - Species: Rat 1600 mg/kg b) skin corrosion/irritation: Test: Skin Irritant - Species: Rabbit Positive c) serious eye damage/irritation: Test: Eye Irritant - Species: Rabbit Positive d) respiratory or skin sensitisation: Test: Skin Sensitization - Species: IND Negative e) germ cell mutagenicity: Test: oecd - Species: vitro Negative f) carcinogenicity: Test: Carcinogeneticy - Species: Rat Positive g) reproductive toxicity: Test: oecd 3 - Route: Oral - Species: Rat Positive 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 naphthalene - CAS: 91-20-3 b) Aquatic chronic toxicity:

Endpoint: LC50 - Species: Fish 0.51 mg/l - Duration h: 96

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Endpoint: EC50 - Species: Daphnia 3.4 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

2,2'-iminodiethanol; diethanolamine - CAS: 111-42-2

a) Aquatic acute toxicity:

Endpoint: EL10 - Species: fanghi > 1000 mg/l - Duration h: 0.5 Endpoint: EL50 - Species: Algae 9.5 mg/l - Duration h: 72 Endpoint: EL50 - Species: Daphnia 30.1 mg/l - Duration h: 48 Endpoint: LC50 - Species: Fish 1370 mg/l - Duration h: 96 Endpoint: LL50 - Species: Fish 460 mg/l - Duration h: 96

b) Aquatic chronic toxicity:

Endpoint: EL10 - Species: Daphnia 0.78 mg/l - Duration h: 504 Endpoint: NOEL - Species: Algae 0.6 mg/l - Duration h: 72

12.2. Persistence and degradability

None

Distillates (petroleum), hydrotreated light

Biodegradability: Readily biodegradable - Duration: 28gg - %: 69

2,2'-iminodiethanol; diethanolamine - CAS: 111-42-2

Biodegradability: Readily biodegradable - Test: BIOGDG10 - Duration: 28gg - %: 93

12.3. Bioaccumulative potential

2,2'-iminodiethanol; diethanolamine - CAS: 111-42-2

Bioaccumulation: Not bioaccumulative - Test: log Pow -1.43

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.

#### **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:

ping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.(Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene,

Hydrocarbons, C10, aromatics, > 1% naphthalene)

IATA-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.(Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene,

Hydrocarbons ,C10, aromatics, > 1% naphthalene)



IMDG-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.(Hydrocarbons, C10-C13, Aromatics, >1% Naphthalene,

Hydrocarbons, C10, aromatics, > 1% naphthalene)

3 (-)

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):

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)

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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 40
Restriction 75

Volatile Organic compounds - VOCs = 95.70 %

Volatile Organic compounds - VOCs = 956.96 g/Kg

Volatile Organic compounds - VOCs = 785.18 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.

H411 Toxic to aquatic life with long lasting effects.

H302 Harmful if swallowed.

H351 Suspected of causing cancer.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

H228 Flammable solid.

H332 Harmful if inhaled.

H360FD May damage fertility. May damage the unborn child.

H373 (inhalation, oral) May cause damage to organs through prolonged or repeated exposure if inhaled or swallowed.

H226 Flammable liquid and vapour.

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H373 May cause damage to organs through prolonged or repeated exposure.

H318 Causes serious eye damage.

H412 Harmful to aquatic life with long lasting effects.

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
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 Dam. 1	3.3/1	Serious eye damage, Category 1
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
Carc. 2	3.6/2	Carcinogenicity, Category 2
Repr. 1B	3.7/1B	Reproductive toxicity, Category 1B
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
STOT RE 2	3.9/2	Specific target organ toxicity - repeated exposure, 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

Paragraphs modified from the previous revision:

SECTION 9: Physical and chemical properties

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
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
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- 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)	
<b>Environment Contributing So</b>	enario	
CS1 Covered by		ERC7
Worker Contributing Scenar	o	
CS2 Industrial		PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16
1.2 Conditions of use affecting exposure		
1.2. CS1: Environment Contr	ibuting 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:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

### 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:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

### 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:

Where other risk management measures/operational conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.