

Safety Data Sheet

PETRONAS Durance PETROL INJECTORS CLEANER



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

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

1.1. Product identifier

Mixture identification:

Trade name: PETRONAS Durance PETROL INJECTORS CLEANER

Trade code: 9070

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):

⚠ Warning, Eye Irrit. 2, Causes serious eye irritation.

⚠ Warning, Skin Sens. 1B, May cause an allergic skin reaction.

⚠ 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:

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H336 May cause drowsiness or dizziness.

H304 May be fatal if swallowed and enters airways.

H411 Toxic to aquatic life with long lasting effects.

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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.
- P271 Use only outdoors or in a well-ventilated area.
- P273 Avoid release to the environment.
- P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection/...
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
- 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 tactile indications of danger for blind people.
- EUH208 Contains Fatty acids, C8-18 and C18-unsatd., reaction products with Diethanolamine and Propylene oxide.. May produce an allergic reaction.

Contains

- Distillates (petroleum), hydrotreated light
- Hydrocarbons, C10, aromatics, <1% naphthalene
- Hydrocarbons, C10-C13, n-alkanes, <2% aromatics
- 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 $\geq 0.1\%$

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:

$\geq 50\%$ - < 60% Distillates (petroleum), hydrotreated light

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

⚠ 3.10/1 Asp. Tox. 1 H304

EUH066

$\geq 25\%$ - < 30% 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)*

$\geq 7\%$ - < 10% 1-propene, 2-methyl-,homopolymer, hydroformylation products, reaction products with ammonia

CAS: 337367-30-3

⚠ 3.2/2 Skin Irrit. 2 H315

4.1/C3 Aquatic Chronic 3 H412

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>= 3% - < 5% Hydrocarbons, C10-C13, n-alkanes, <2% aromatics

REACH No.: 01-2119475608-26, EC: 929-018-5

⚠ 3.10/1 Asp. Tox. 1 H304

EUH066

>= 2% - < 3% Hydrocarbons, C10, aromatics, >1% naphthalene.

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

⚠ 4.1/C2 Aquatic Chronic 2 H411

⚠ 3.10/1 Asp. Tox. 1 H304

⚠ 3.8/3 STOT SE 3 H336

EUH066

>= 2% - < 3% 2-Ethylhexan-1-ol

REACH No.: 01-2119487289-20, CAS: 104-76-7, EC: 203-234-3

⚠ 3.8/3 STOT SE 3 H335

⚠ 3.3/2 Eye Irrit. 2 H319

⚠ 3.2/2 Skin Irrit. 2 H315

⚠ 3.1/4/Inhal Acute Tox. 4 H332

>= 1% - < 2% Fatty acids, C8-18 and C18-unsatd., reaction products with Diethanolamine and Propylene oxide.

REACH No.: 01-2119962886-18, CAS: 1000817-22-0

⚠ 3.4.2/1B Skin Sens. 1B H317

⚠ 3.3/1 Eye Dam. 1 H318

>= 1% - < 2% Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

REACH No.: 01-2119457273-39, EC: 918-481-9

⚠ 3.10/1 Asp. Tox. 1 H304

EUH066

>= 0.1% - < 0.25% naphthalene

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

⚠ 2.7/2 Flam. Sol. 2 H228

⚠ 3.6/2 Carc. 2 H351

⚠ 3.1/4/Oral Acute Tox. 4 H302

⚠ 4.1/A1 Aquatic Acute 1 H400 M=1.

⚠ 4.1/C1 Aquatic Chronic 1 H410 M=1.

*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.

After contact with skin, wash immediately with soap and plenty of water.

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In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

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

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in the containers.

See also section 8 for recommended protective equipment.

Advice on general occupational hygiene:

Contaminated 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

20101.12 - TWA: 1200 mg/m³, 165 ppm

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

ACGIH - TWA: 200 mg/m³

2-Ethylhexan-1-ol - CAS: 104-76-7

EU - TWA(8h): 5.4 mg/m³, 1 ppm

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

20101.12 - TWA(8h): 1200 ppm

naphthalene - CAS: 91-20-3

20101.13 - TWA: 50 mg/m³, 10 ppm

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

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

naphthalene - CAS: 91-20-3

Worker Professional: 25 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Professional: 3.57 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values

naphthalene - CAS: 91-20-3

Target: 09 - Value: 2.9 mg/l

Target: Marine water - Value: 2.4 03

Target: Marine water sediments - Value: 67.2 µg/kg

Target: Freshwater sediments - Value: 2.4 03

Target: Freshwater sediments - Value: 67.2 µg/kg

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:

Use adequate protective respiratory equipment.

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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:	Light yellow	--	--
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 mm ² /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:	0,843 g/ml	--	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

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- 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:

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- 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
The product is classified: Eye Irrit. 2 H319
- d) respiratory or skin sensitisation
The product is classified: Skin Sens. 1B H317
- 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
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

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- c) serious eye damage/irritation:
Test: OECD TG 405 - Route: EYE Negative
- d) respiratory or skin sensitisation:
Test: Inhalation Sensitization 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-C13, n-alkanes, <2% aromatics

- a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 5000 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 5 mg/l - Duration: 8h
Test: LD50 - Route: Skin - Species: Rabbit > 5000 mg/kg

- g) reproductive toxicity:
Test: NOAEL - Route: Oral - Species: Rat = 1000 mg/kg
- Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

- a) acute toxicity:
Test: LC50 - Route: Inhalation - Species: Rat > 7630 mg/m³ - Duration: 4h
Test: LC0 - Route: Inhalation - Species: Rat > 5000 mg/m³ - Duration: 8h
Test: LD50 - Route: Skin - Species: Rabbit > 2000 mg/kg
Test: LD50 - Route: Oral - Species: Rat > 5000 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 2 - Species: vitro Negative

- f) carcinogenicity:
Test: Carcinogeneticity - Species: Mouse Negative

naphthalene - CAS: 91-20-3

- e) germ cell mutagenicity:
Test: Mutagenesis - Species: vitro Positive

- f) carcinogenicity:
Test: Carcinogeneticity - Route: Inhalation - Species: Rat Positive - Notes: IARC 2B

11.2. Information on other hazards

Endocrine disrupting properties:

No endocrine disruptor substances present in concentration $\geq 0.1\%$

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-C13, n-alkanes, <2% aromatics

- a) Aquatic acute toxicity:
Endpoint: LL50 - Species: Fish > 10-100 mg/l - Duration h: 96
Endpoint: EL50 - Species: Daphnia > 100 mg/l - Duration h: 48
Endpoint: EL50 - Species: Algae > 100 mg/l - Duration h: 72
Endpoint: NOELR - Species: Algae > 100 mg/l - Duration h: 72

12.2. Persistence and degradability

None

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Distillates (petroleum), hydrotreated light

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

Hydrocarbons, C10-C13, n-alkanes, <2% aromatics

Biodegradability: Readily biodegradable - Duration: 28gg - %: 61

12.3. Bioaccumulative potential

Hydrocarbons, C10-C13, n-alkanes, <2% aromatics

Bioaccumulation: Not bioaccumulative

Hydrocarbons, C10-C13, n-alkanes, isoalkanes, cyclics, < 2% aromatics

Test: BCF - Bioconcentration factor 10-2500

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 $\geq 0.1\%$

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: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hydrocarbons, c10, aromatics, <1% naphthalene, hydrocarbons, c10, aromatics, >1% naphthalene.)

IATA-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hydrocarbons, c10, aromatics, <1% naphthalene, hydrocarbons, c10, aromatics, >1% naphthalene.)

IMDG-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (hydrocarbons, c10, aromatics, <1% 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-Environmental Pollutant: Yes

IMDG-Marine pollutant: Marine Pollutant

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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)
- 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 = 90.40 %

Volatile Organic compounds - VOCs = 904.02 g/Kg

Volatile Organic compounds - VOCs = 762.08 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)

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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.
H315 Causes skin irritation.
H412 Harmful to aquatic life with long lasting effects.
H335 May cause respiratory irritation.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H228 Flammable solid.
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.

Hazard class and hazard category	Code	Description
Flam. Sol. 2	2.7/2	Flammable solid, Category 2
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
Skin Sens. 1B	3.4.2/1B	Skin Sensitisation, Category 1B
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

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Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3	PETRONAS
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Paragraphs modified from the previous revision:

SECTION 1: Identification of the substance/mixture and of the company/undertaking
 SECTION 3: Composition/information on ingredients
 SECTION 14: Transport information
 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
Eye Irrit. 2, H319	Calculation method
Skin Sens. 1B, H317	Calculation method
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).

Safety Data Sheet

PETRONAS Durance PETROL INJECTORS CLEANER



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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)

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 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 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	
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
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Worker Contributing Scenario

CS2 General use from professional operators	PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16
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2.2 Conditions of use affecting exposure

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

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

CS2 Consumer	PC13
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3.2 Conditions of use affecting exposure

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

Environmental release categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (ERC9a, ERC9b)
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3.2. CS2: Consumer Contributing Scenario: Consumer (PC13)

Product Categories	Fuels (PC13)
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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.

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	
CS2 Industrial	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)
<i>Amount used, frequency and duration of use (or from service life)</i>	
Amounts used: Annual site tonnage 2500 t(tonnes)/year Daily amount per site 2500 kg/day	
Maximum allowable site tonnage (MSafe): 999999 kg/day	
<i>Technical and organisational conditions and measures</i>	
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.	
<i>Conditions and measures related to sewage treatment plant</i>	
STP type: Municipal Sewage Treatment Plant Water - minimum efficiency of: = 94.6 % STP effluent (m³/day): 2000	
<i>Conditions and measures related to treatment of waste (including article waste)</i>	
Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.	
<i>Other conditions affecting environmental exposure</i>	
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:

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
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Covered by	ERC9a - ERC9b
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Worker Contributing Scenario

CS2 General use from professional operators	PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16
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2.2 Conditions of use affecting exposure

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

Environmental release categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (ERC9a, ERC9b)
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Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 0.0006 t(tonnes)/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
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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:

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 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
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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 categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (ERC9a, ERC9b)
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Amount used, frequency and duration of use (or from service life)

Amounts used:

Annual site tonnage 1.2 t(tonnes)/year
Daily amount per site 3.2 t(tonnes)/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)
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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 m³

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 m³

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:

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