

Safety Data Sheet dated 11/11/2021, version 8

1.1. Product identifier Mixture identification:	
Trade name:	Petrol injector cleaner
Trade code:	31039
	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:	5
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 responsib	le for the safety data sheet:
arexons@arexons.it	
1.4. Emergency telephone nu	Imber
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 -	
	lospital - National Poisons Information Centre 01 809 2166 (7days, 8:00
22:00)	
	Information Helpline 0861 555 777
In Malta: emergency n	umber 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.
- Solution State of the second s
- 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.

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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. 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 tactive 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: >= 50% - < 60% Distillates (petroleum), hydrotreated light REACH No.: 01-2119456620-43, EC: 926-141-6 3.10/1 Asp. Tox. 1 H304 EUH066 >= 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 1.8/3 STOT SE 3 H336 4.1/C2 Aquatic Chronic 2 H411 EUH066 DECLP (CLP)* >= 7% - < 10% 1-propene, 2-methyl-, homopolymer, hydroformylation products, reaction products with ammonia CAS: 337367-30-3 31039/8 Page n. 2 of 13



1.2/2 Skin Irrit. 2 H315 4.1/C3 Aquatic Chronic 3 H412 >= 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 1.8/3 STOT SE 3 H336 EUH066 >= 2% - < 3% 2-Ethylhexan-1-ol REACH No.: 01-2119487289-20, CAS: 104-76-7, EC: 203-234-3 1.8/3 STOT SE 3 H335 1.3/2 Eye Irrit. 2 H319 1.2/2 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.

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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. In case of eves contact: After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an opthalmologist immediately. Protect uninjured eye. In case of Indestion: 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.

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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 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. 31039/8 Page n. 5 of 13



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:	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 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:	0,843 g/ml		
Relative vapour density:	N.A.		
Particle characteristics:			



	Particle size:	N.A.				
	9.2. Other information No other relevant information					
SEC	FION 10: Stability and rea	activity				
	10.1. Reactivity					
	Stable under normal of	conditions				
	10.2. Chemical stability					
	Stable under normal of					
	10.3. Possibility of hazardou	s reactions				
	None 10.4. Conditions to avoid					
	Stable under normal of	onditions				
	10.5. Incompatible materials					
	None in particular.					
	10.6. Hazardous decomposi	tion products				
	None.					
SEC	FION 11: Toxicological ir	formation				
	11.1. Information on hazard		ed in Regulation	(EC) No 1272/2008		
	Toxicological information of		0			
	PETROL INJECTORS	S CLEANER ML	_ 250			
	a) acute toxicity					
	Not classified					
			assification criter	ia are not met		
	b) skin corrosion/irrita	lion				
	Not classified	able data the ele	assification criter	ia aro not mot		
	c) serious eye damag					
		classified: Eye Ir	rit. 2 H319			
	d) respiratory or skin s					
		classified: Skin S	Sens. 1B H317			
	e) germ cell mutagenicity					
	Not classified					
	Based on available data, the classification criteria are not met					
	f) carcinogenicity					
	Not classified	able data the al	acification oritor	ia ara nat mat		
	g) reproductive toxicit		assification criter	la are not met		
	Not classified	y				
		able data, the cla	assification criter	ia are not met		
	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 exp	osure				
	Not classified					
		able data, the cla	assification criter	ia are not met		
	j) aspiration hazard					
		classified: Asp. 7		product:		
	Toxicological information of					
	Distillates (petroleum), hydrotreated light a) acute toxicity:					
	Test: LC50 - Route: Inhalation - Species: Rat > 5000 mg/m3 - Duration: 8h					
31039				0		

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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-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: Carcinogeneticy - Species: Mouse Negative naphthalene - CAS: 91-20-3 e) germ cell mutagenicity: Test: Mutagenesis - Species: vitro Positive f) carcinogenicity: Test: Carcinogeneticy - Route: Inhalation - Species: Rat Positive - Notes: IARC 2B 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-C13, n-alkanes, <2% aromatics a) Aquatic acute toxicity: Endpoint: LL50 - Species: Fish > 10-100 mg/l - Duration h: 96

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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	
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 - Bioconcentrantion 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 >= 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



ADR-UN Number: 3082	
IATA-UN Number: 3082	
IMDG-UN Number: 3082	
14.2. UN proper shipping name	
ADR-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIC N.O.S. (hydrocarbons, c10, aromatics, <1% naphthalene.)	
IATA-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIC N.O.S. (hydrocarbons, c10, aromatics, <1% naphthalene) hydrocarbons, c10, aromatics, >1% naphthalene.)	Э,
IMDG-Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIC 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	

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 14.4. Packing group	III
ADR-Packing Group:	III
IATA-Packing group:	III
IMDG-Packing group: 14.5. Environmental hazards	Yes
ADR-Enviromental Pollutant:	Marine Pollutant
IMDG-Marine pollutant:	F-A,
IMDG-EmS:	S-F
 14.6. Special precautions for user ADR-Subsidiary hazards: ADR-S.P.: ADR-Transport category (Tunn IATA-Passenger Aircraft: IATA-Subsidiary hazards: IATA-Cargo Aircraft: IATA-Cargo Aircraft: IATA-Cargo Aircraft: IATA-Cargo Aircraft: IATA-ERG: IMDG-Subsidiary hazards: IMDG-Subsidiary hazards: IMDG-Subsidiary hazards: IMDG-Segregation: 14.7. Maritime transport in bulk accor N.A. Limited Quantity: 5 L Exempted Quantity: E1 	964 - 964 A97 A158 A197 9L - Category A

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture Dir. 98/24/EC (Risks related to chemical agents at work) Dir. 2000/39/EC (Occupational exposure limit values) Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP) Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013 Regulation (EU) n. 2020/878 Regulation (EU) n. 286/2011 (ATP 2 CLP) Regulation (EU) n. 618/2012 (ATP 3 CLP) Regulation (EU) n. 487/2013 (ATP 4 CLP) Regulation (EU) n. 944/2013 (ATP 5 CLP) Regulation (EU) n. 605/2014 (ATP 6 CLP) Regulation (EU) n. 2015/1221 (ATP 7 CLP) Regulation (EU) n. 2016/918 (ATP 8 CLP) Regulation (EU) n. 2016/1179 (ATP 9 CLP) Regulation (EU) n. 2017/776 (ATP 10 CLP) Regulation (EU) n. 2018/669 (ATP 11 CLP) Regulation (EU) n. 2018/1480 (ATP 13 CLP) Regulation (EU) n. 2019/521 (ATP 12 CLP) Regulation (EU) n. 2020/217 (ATP 14 CLP) Regulation (EU) n. 2020/1182 (ATP 15 CLP) Regulation (EU) n. 2021/643 (ATP 16 CLP) Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications: Restrictions related to the product: **Restriction 3** Restrictions related to the substances contained: **Restriction 40 Restriction 75** 31039/8

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Volatile Organic compounds - VOCs = 90.40 % Volatile Organic compounds - VOCs = 904.02 g/Kg Volatile Organic compounds - VOCs = 762.08 g/I 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. 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
Aquatic Chronic 3	4.1/C3	Chronic (long term) aquatic hazard, category 3

Paragraphs modified from the previous revision:

SECTION 1: Identification of the substance/mixture and of the company/undertaking SECTION 2: Hazards identification SECTION 3: Composition/information on ingredients SECTION 4: First aid measures SECTION 8: Exposure controls/personal protection SECTION 9: Physical and chemical properties SECTION 11: Toxicological information SECTION 12: Ecological information SECTION 14: Transport information SECTION 15: Regulatory information SECTION 16: Other 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.

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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: TWA:	Threshold Limiting Value.
WGK:	Time-weighted average German Water Hazard Class
WGIL.	German water nazaru Glass.

Exposure Scenario, 18/07/2019

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

Table of contents

- 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	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 Sce	enario		
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 Contrib	outing 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, PRO	C8a, 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) character		-,,	
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 t the ES	o evaluate whether he works inside	e the boundaries set by	

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.

Widespread use by professional workers 2. ES 2

2 1 TITLE SECTION

2.1 TITLE SECTION			
Exposure Scenario name	Fuel		
Date - Version	18/07/2019 - 1.0		
Life Cycle Stage	Widespread use by professional workers	Widespread use by professional workers	
Main user group	Professional uses	Professional uses	
Environment Contributing S	cenario		
CS1 Solids based process		ERC9a - ERC9b	
Worker Contributing Scenario			
CS2 General use from professional operators PROC1 - PROC2 - PROC3 - PROC8 PROC8b - PROC16		PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16	
2.2 Conditions of us	e 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)		
2.2. CS2: Worker Contributin PROC8a, PROC8b, PROC16)	ng Scenario: General use from professional operato	rs (PROC1, PROC2, PROC3,	
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) characte	ristics		

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 Sce	nario	
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 categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (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.

Exposure Scenario, 18/07/2019

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

Table of contents

- 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 a	t 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 Sce	enario		
CS1 Covered by		ERC7	
Worker Contributing Scenario)		
CS2 Industrial		PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16	
1.2 Conditions of use	e affecting exposure		
	outing Scenario: Covered by (ERC7)		
Environmental release categories	Use of functional fluid at industrial site (ERC7)		
Amount used, frequency an	d duration of use (or from service life)		
Control measures to prevent			
Treat air emission to provide the re	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 re	elated to sewage treatment plant		
STP type: Municipal Sewage Treatment Pla Water - minimum efficiency of: = STP effluent (m ³ /day): 2000	int - 94.6 %		
	elated to treatment of waste (including artic	le waste)	
Waste treatment External treatment and disposal of waste should comply with applicable local and/or national regulations.			
Other conditions affecting e	environmental exposure		
Local marine water dilution fa Local freshwater dilution fact			
1.2. CS2: Worker Contributing	Scenario: Industrial (PROC1, PROC2, PROC3, PI	ROC8a, 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

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.

Widespread use by professional workers 2. ES 2

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 Sce	enario	
CS1 Covered by		ERC9a - ERC9b
Worker Contributing Scenario	•	
CS2 General use from profession	al operators	PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16
2.2 Conditions of use	affecting exposure	
2.2. CS1: Environment Contrib	outing Scenario: Covered by (ERC9a, ERC9b)	
Environmental release categories	Widespread use of functional fluid (indoor) - Widespr (ERC9a, ERC9b)	ead use of functional fluid (outdoor)
Amount used, frequency an	d duration of use (or from service life)	
Release type: Continuous release Emission days: 365 days per year		
	al 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 re	elated to sewage treatment plant	
STP type: Municipal Sewage Treatment Plant Water - minimum efficiency of: = 94.6 % STP effluent (m ³ /day): 2000		
Conditions and measures re	elated 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 fa		
	Scenario: General use from professional operato	rs (PROC1, PROC2, PROC3,
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) c	haracteristics
Physical form of pro Liquid	duct:
Vapour pressure: < 5 hPa	
Concentration of sul Covers percentage su	ostance in product: Ibstance in the product up to 100 %.
Amount used, frequ	uency and duration of use/exposure
Duration: Covers daily exposure	es up to 8 hours
Technical and orgo	inisational 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 Consu	ımer use; Fuels (PC13)	
3.1 TITLE SECTION		
Exposure Scenario name		
Date - Version		
	18/07/2019 - 1.0	
Life Cycle Stage	Consumer use	
Main user group	Consumer uses	
Product Categories	Fuels (PC13)	
Environment Contributing Sce	nario	
CS1 Covered by		ERC9a - ERC9b
Consumer Contributing Scenar	rio	
CS2 Liquid: Automotive Refuelling	g	PC13
CS3 Liquid, Garden equipment - L	Jse	PC13
CS4 Liquid: Garden equipment - F	Refuelling	PC13
CS5 Liquid: Home space heater fu	lel	PC13
CS6 Liquid: Lamp oil		PC13
3.2 Conditions of use	affecting exposure	
3.2. CS1: Environment Contrib	uting Scenario: Covered by (ERC9a, ERC9b)	
Environmental release categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (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	lated to treatment of waste (including article	wasto)
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 Covers percentage substance in	•	
Amount used, frequency an	nd 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	e of 100 m³	
3.2. CS3: Consumer Contribu	ting Scenario: Liquid, Garden equipment - Use (PC13)	
Product Categories	Fuels (PC13)	
Product (article) character	ristics	
Physical form of product: Liquid		
Vapour pressure: < 5 hPa Concentration of substance i Covers percentage substance ir Amount used, frequency and		
Amounts used: Amount per use 750 g		
Duration: Exposure duration 120 min Frequency: Use frequency 26 days per year		
Other conditions affecting	A	
Room size: Covers use in room size		
	ting Scenario: Liquid: Garden equipment - Refuelling (PC13) Fuels (PC13)	
Product Categories		
Physical form of product:	Product (article) characteristics Physical form of product:	
Liquid		
Vapour pressure: < 5 hPa		
Concentration of substance in Covers percentage substance in	•	
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 of	consumers exposure
Room size: Covers use in a one car	garage (>34 m ³) under typical ventilation.
3.2. CS5: Consumer Contribut	ing Scenario: Liquid: Home space heater fuel (PC13)
Product Categories	Fuels (PC13)
Product (article) character	istics
Physical form of product: Liquid	
Vapour pressure: < 5 hPa	
Concentration of substance in Covers percentage substance in	•
Amount used, frequency an	d 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 a	consumers exposure
Room size: Covers use in a one car a Temperature: 20°C	garage (>34 m ³) under typical ventilation.
3.2. CS6: Consumer Contribut	ing Scenario: Liquid: Lamp oil (PC13)
Product Categories	Fuels (PC13)
Product (article) character	istics
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.