Safety Data Sheet
PULITORE INIETTORI - INJECTOR CLEANER

Safety Data Sheet dated 31/10/2024, version 9

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

1.1. Product identifier

Mixture identification:

Trade name: PULITORE INIETTORI - INJECTOR CLEANER

Trade code: 9844

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

Recommended use:

Diesel additive

Uses advised against:

Strictly adhere to the recommended uses.

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: emergency number 112

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 3, Harmful 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.

H412 Harmful 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.
P301+P310 IF SWALLOWED: Immediately call a POISON CENTER.
P331 Do NOT induce vomiting.
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
Solvent naphtha (petroleum), heavy arom.;

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:

stta	Name	Ident. Number	Classification
>= 70% - < 80%	Distillates (petroleum), hydrotreated light	EC: 926-141-6 REACH No.: 01-2119456620-43	3.10/1 Asp. Tox. 1 H304 EUH066
>= 20% - < 25%	2-Ethylhexyl nitrate	CAS: 27247-96-7 EC: 248-363-6 REACH No.: 01-2119539586-27	3.1/4/Oral Acute Tox. 4 H302 3.1/4/Dermal Acute Tox. 4 H312 3.1/4/Inhal Acute Tox. 4 H332 4.1/C2 Aquatic Chronic 2 H411 EUH044 EUH066
>= 2% - < 3%	Solvent naphtha (petroleum), heavy arom.;	CAS: 64742-94-5 EC: 265-198-5	3.2/2 Skin Irrit. 2 H315 3.8/3 STOT SE 3 H336 4.1/C2 Aquatic Chronic 2 H411 3.10/1 Asp. Tox. 1 H304
>= 0,5% - < 1%	2-Ethylhexan-1-ol	CAS: 104-76-7 EC: 203-234-3 REACH No.: 01-2119487289-20	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

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 dust.
To carbon dioxide.
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
Normal fire-fighting clothing, such as an open-circuit compressed air breathing apparatus (EN 137), flame-resistant suit (EN469), flame-resistant gloves (EN 659) and firefighter's boots (HO A29 or A30).

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
For cleaning up:
Avoid flame and/or spark near leak and produced waste. Do not smoke. In case of large spills dike,
absorb and shovel up into suitable containers for disposal. Contain small spills with absorbent material.
Put dirty material in suitable container. Dispose of dirty material in accordance with local or

national
regulations.

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
See also section 8 for recommended protective equipment.
Advice on general occupational hygiene:
Contamined clothing should be changed before entering eating areas.
Do not eat or drink while working.

7.2. Conditions for safe storage, including any incompatibilities
Store in well-closed containers, preferably in a cool place, away from sources of heat and direct sunlight.
Avoid exposure to direct sunlight.
Only store in the original container.
Keep away from food, drink and feed.
None in particular.
Instructions as regards storage premises:
Adequately ventilated premises.

7.3. Specific end use(s)
None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
2-Ethylhexyl nitrate - CAS: 27247-96-7
20101.13 - TWA(8h): 1 ppm
2-Ethylhexan-1-ol - CAS: 104-76-7
EU - TWA(8h): 5.4 mg/m3, 1 ppm

DNEL Exposure Limit Values
2-Ethylhexyl nitrate - CAS: 27247-96-7
Worker Professional: 1 mg/kg - Consumer: 0.52 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Professional: 0.35 mg/m3 - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

PNEC Exposure Limit Values
2-Ethylhexyl nitrate - CAS: 27247-96-7
Target: Fresh Water - Value: 0.008 mg/l
Target: Marine water - Value: 0.00008 mg/l

8.2. Exposure controls
Eye protection:
Safety goggles.
Compliant with EN 166

Protection for skin:
protective clothing

Protection for hands:
Nitrile or Viton gloves.
Compliant with EN 374.
Thickness: Cuff 0.10 mm; Palm 0.12 mm; Fingers 0.145 mm

Respiratory protection:
Use a suitable respiratory protection device.

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:	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	IP 170	--
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:	0,844 g/ml	ASTM D 4052-96	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

No other relevant information

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions
10.2. Chemical stability
Stable at normal ambient temperatures and when used as recommended.
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:
PULITORE INIETTORI DIESEL - Uso Professionale ml 325
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
j) aspiration hazard:
Test: May be fatal if swallowed and enters airways (physical-chemical properties) - Route: Oral Positive
2-Ethylhexyl nitrate - CAS: 27247-96-7
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Rat > 9600 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 4.6 mg/l - Duration: 1h
Test: LD50 - Route: Skin - Species: Rabbit > 4800 mg/kg
b) skin corrosion/irritation:
Test: Skin Irritant - Route: Skin - Species: Rabbit Negative
c) serious eye damage/irritation:
Test: Eye Irritant - Route: EYE - Species: Rabbit Negative
d) respiratory or skin sensitisation:
Test: Skin Sensitization - Route: Skin - Species: IND Negative
e) germ cell mutagenicity:
Test: oecd - Species: vitro Negative
f) carcinogenicity:
Test: oecd 4 - Species: Rat Negative - Notes: Teratogenicità
g) reproductive toxicity:
Test: OECD 421 - Route: Oral - Species: Rat Positive - Notes: Tossicità materna

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
2-Ethylhexyl nitrate - CAS: 27247-96-7
a) Aquatic acute toxicity:
Endpoint: EL50 - Species: Algae 3.22 mg/l - Duration h: 72
Endpoint: EL50 - Species: Daphnia > 12.6 mg/l - Duration h: 48
Endpoint: EL50 - Species: fanghi > 1000 mg/l - Duration h: 3
Endpoint: LC50 - Species: Fish 2 mg/l - Duration h: 96
b) Aquatic chronic toxicity:
Endpoint: EL10 - Species: Algae 1.54 mg/l - Duration h: 72
Solvent naphtha (petroleum), heavy arom.; - CAS: 64742-94-5
a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Daphnia > 1 mg/l - Duration h: 48
Endpoint: LC50 - Species: Fish > 1 mg/l - Duration h: 96

12.2. Persistence and degradability
None
2-Ethylhexyl nitrate - CAS: 27247-96-7
Biodegradability: Non-readily biodegradable - Test: OECD TG 310 - Duration: 28gg - %: 0

12.3. Bioaccumulative potential
2-Ethylhexyl nitrate - CAS: 27247-96-7

Bioaccumulation: Bioaccumulative - Test: Kow - Partition coefficient 5.24

12.4. Mobility in soil
N.A.

12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None

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

12.7. Other adverse effects
None

SECTION 13: Disposal considerations

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

Additional disposal information:
CER 14 06 03 other solvents and solvent mixtures.
Contaminated packaging must be emptied as far as possible. After cleaning, send to an authorised centre for recycling or disposal.
"Use in accordance with good working practices, avoiding dispersal in the environment.
Do not discharge into drains, ground water or water courses. Comply with current legislation on the protection of water and soil from pollution (Legislative Decree No. 152 of 3/4/2006).
Dispose of used product and containers by handing them over to authorised companies, in accordance with the provisions of
Legislative Decree No. 152/2006 (Consolidated Environmental Act, which replaced the Ronchi Decree) as amended.
The used product is to be considered special waste to be classified in accordance with Directive No. 2008/98/EC on waste and related matters. Recover if possible. Send to authorised disposal plants or incineration under
controlled conditions (152/2006 art. 184).
Act in accordance with the local and national laws in force.
Contaminated packaging must be emptied as far as possible. After cleaning, send to an authorised centre for recycling or disposal."

SECTION 14: Transport information

14.1. UN number or ID number

Not classified as dangerous in the meaning of transport regulations.

14.2. UN proper shipping name
N.A.

14.3. Transport hazard class(es)
N.A.

14.4. Packing group
N.A.

14.5. Environmental hazards
ADR-Enviromental Pollutant: No
IMDG-Marine pollutant: No

14.6. Special precautions for user
N.A.

14.7. Maritime transport in bulk according to IMO instruments
N.A.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 2020/878
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Regulation (EU) n. 605/2014 (ATP 6 CLP)
Regulation (EU) n. 2015/1221 (ATP 7 CLP)
Regulation (EU) n. 2016/918 (ATP 8 CLP)
Regulation (EU) n. 2016/1179 (ATP 9 CLP)
Regulation (EU) n. 2017/776 (ATP 10 CLP)
Regulation (EU) n. 2018/669 (ATP 11 CLP)
Regulation (EU) n. 2018/1480 (ATP 13 CLP)
Regulation (EU) n. 2019/521 (ATP 12 CLP)
Regulation (EU) n. 2020/217 (ATP 14 CLP)
Regulation (EU) n. 2020/1182 (ATP 15 CLP)
Regulation (EU) n. 2021/643 (ATP 16 CLP)
Regulation (EU) n. 2021/849 (ATP 17 CLP)
Regulation (EU) n. 2022/692 (ATP 18 CLP)
Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:
Restrictions related to the product:
Restriction 3
Restrictions related to the substances contained:
No restriction.

Volatile Organic compounds - VOCs = 94.68 %
Volatile Organic compounds - VOCs = 946.84 g/Kg
Volatile Organic compounds - VOCs = 776.41 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
None

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:
Distillates (petroleum), hydrotreated light
2-Ethylhexyl nitrate

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.
H302 Harmful if swallowed.
H312 Harmful in contact with skin.
H332 Harmful if inhaled.
H411 Toxic to aquatic life with long lasting effects.

EUH044 Risk of explosion if heated under confinement.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H335 May cause respiratory irritation.
H319 Causes serious eye irritation.

Hazard class and hazard category	Code	Description
Acute Tox. 4	3.1/4/Dermal	Acute toxicity (dermal), Category 4
Acute Tox. 4	3.1/4/Inhal	Acute toxicity (inhalation), Category 4
Acute Tox. 4	3.1/4/Oral	Acute toxicity (oral), Category 4
Asp. Tox. 1	3.10/1	Aspiration hazard, Category 1
Skin Irrit. 2	3.2/2	Skin irritation, Category 2
Eye Irrit. 2	3.3/2	Eye irritation, Category 2
STOT SE 3	3.8/3	Specific target organ toxicity - single exposure, Category 3
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 5: Firefighting measures
SECTION 6: Accidental release measures
SECTION 8: Exposure controls/personal protection
SECTION 9: Physical and chemical properties
SECTION 10: Stability and reactivity
SECTION 13: Disposal considerations
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
Asp. Tox. 1, H304	Calculation method
Aquatic Chronic 3, H412	Calculation method

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:
ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold
The information contained herein is based on our state of knowledge at the above-specified date. It

refers solely to the product indicated and constitutes no guarantee of particular quality.
It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.
This MSDS cancels and replaces any preceding release.

ADR:	European Agreement concerning the International Carriage of Dangerous Goods by Road.
ATE:	Acute Toxicity Estimate
ATEmix:	Acute toxicity Estimate (Mixtures)
CAS:	Chemical Abstracts Service (division of the American Chemical Society).
CLP:	Classification, Labeling, Packaging.
DNEL:	Derived No Effect Level.
EINECS:	European Inventory of Existing Commercial Chemical Substances.
GefStoffVO:	Ordinance on Hazardous Substances, Germany.
GHS:	Globally Harmonized System of Classification and Labeling of Chemicals.
IATA:	International Air Transport Association.
IATA-DGR:	Dangerous Goods Regulation by the "International Air Transport Association" (IATA).
ICAO:	International Civil Aviation Organization.
ICAO-TI:	Technical Instructions by the "International Civil Aviation Organization" (ICAO).
IMDG:	International Maritime Code for Dangerous Goods.
INCI:	International Nomenclature of Cosmetic Ingredients.
KSt:	Explosion coefficient.
LC50:	Lethal concentration, for 50 percent of test population.
LD50:	Lethal dose, for 50 percent of test population.
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, 09/10/2019

Substance identity	
Chemical name	KEROPUR DP 5211

Table of contents

1. ES 1 Use at industrial site

1.1 TITLE SECTION

Exposure Scenario name	Fuel additive
Date - Version	09/10/2019 - 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)

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

Maximum allowable site tonnage (MSafe): 7500 tonnes/day

Release type: Continuous release

Emission days: 100 days per year

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant
Water - minimum efficiency of: = 94.7 %

STP effluent (m³/day): 2000

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)

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	0.5 %	N/A
Water	0.001 %	N/A
soil	0 %	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 additive
Date - Version	09/10/2019 - 1.0
Life Cycle Stage	Widespread use by professional workers
Main user group	Professional uses
Sector(s) of use	Professional uses (SU22)

Environment Contributing Scenario

CS1 Covered by	ERC9a - ERC9b

Worker Contributing Scenario

CS2 General use from professional operators	PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16

2.2 Conditions of use affecting exposure

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

Environmental release 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)

Maximum allowable site tonnage (MSafe): 980 tonnes/day

Release type: Continuous release

Emission days: 365 days per year

Conditions and measures related to sewage treatment plant

STP type:

Municipal Sewage Treatment Plant
Water - minimum efficiency of: = 94.7 %

STP effluent (m³/day): 2000

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)

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	0.1 %	N/A
Water	0.001 %	N/A

soil	0.001 %	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

3.1 TITLE SECTION

Exposure Scenario name	Fuel additive
Date - Version	09/10/2019 - 1.0
Life Cycle Stage	Consumer use
Main user group	Consumer uses
Sector(s) of use	Consumer uses (SU21)

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 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)

Maximum allowable site tonnage (MSafe): 44000 kg/day

Release type: Continuous release

Emission days: 245 days per year

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

Product Categories	Fuels (PC13)

3.3 Exposure estimation and reference to its source

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

Release route	Release rate	Release estimation method
Air	0.1 %	N/A
Water	0.001 %	N/A
soil	0.001 %	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 , 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

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

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)	
Environmental release categories	Widespread use of functional fluid (indoor) - Widespread use of functional fluid (outdoor) (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 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, 07/04/2020

Substance identity	
Chemical name	2-Ethylhexyl nitrate
CAS No.	27247-96-7
EINECS No.	248-363-6

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1. ES 1 Consumer use; Fuels (PC13)

1.1 TITLE SECTION

Exposure Scenario name	Fuel additive
Date - Version	07/04/2020 - 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 Fuel additives	PC13

1.2 Conditions of use affecting exposure

1.2. 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)

Product (article) characteristics

Physical form of product:
Liquid

Other conditions affecting environmental exposure

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

1.2. CS2: Consumer Contributing Scenario: Fuel additives (PC13)

Product Categories	Fuels (PC13)

Product (article) characteristics

Physical form of product:
Liquid

Amount used, frequency and duration of use/exposure

Amounts used:
Amount per use 120 g for event

Information and behavioural advice for consumers

Information and behavioural advice for consumers:
Keep away from children.

Other conditions affecting consumers exposure

Covers indoor and outdoor use
Ventilation rate: Open windows during application to ensure natural ventilation.
Body parts exposed:
Palm of one hand

1.3 Exposure estimation and reference to its source

1.2. CS2: Consumer Contributing Scenario: Fuel additives (PC13)

Exposure route, Health effect, Exposure indicator	Exposure level	Calculation method	Risk Characterization Ratio (RCR)
combined routes, systemic, long-term	N/A	EASY TRA v4.1	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.