

Safety Data Sheet
PULITORE INIETTORI BENZINA PROFESSIONAL
ML 350



Safety Data Sheet dated 27/10/2021, version 8

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

1.1. Product identifier

Mixture identification:

Trade name: PULITORE INIETTORI BENZINA PROFESSIONAL ML 350

Trade code: 9843

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

Recommended use:

Fuel additive

1.3. Details of the supplier of the safety data sheet

Supplier:

Arexons S.p.A.

via Antica di Cassano, 23, 20063

Cernusco sul Naviglio (MI), Italy

Arexons S.p.A.

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

Competent person responsible for the safety data sheet:

arexons@arexons.it

1.4. Emergency telephone number

Arexons S.p.A.

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

In England and Wales: NHS 111 - dial 111

In Scotland: NHS 24 - dial 111

In Ireland: Beaumont Hospital - National Poisons Information Centre 01 809 2166 (7days, 8:00 - 22:00)

In South Africa: Poison Information Helpline 0861 555 777

In Malta: emergency number 112

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

☠ Danger, Asp. Tox. 1, May be fatal if swallowed and enters airways.

Aquatic Chronic 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.

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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 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

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:

$\geq 70\%$ - $< 80\%$ Distillates (petroleum), hydrotreated light

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

⚠ 3.10/1 Asp. Tox. 1 H304

EUH066

$\geq 12.5\%$ - $< 15\%$ 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)*

$\geq 3\%$ - $< 5\%$ 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

$\geq 1\%$ - $< 2\%$ Hydrocarbons, C10-C13, n-alkanes, <2% aromatics

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

⚠ 3.10/1 Asp. Tox. 1 H304

EUH066

$\geq 0.5\%$ - $< 1\%$ 2-Ethylhexan-1-ol

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

⚠

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- 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

>= 0.5% - < 1% 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

>= 0.05% - < 0.1% 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:

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

Wash with plenty of water and soap.

Wash thoroughly the body (shower or bath).

Remove contaminated clothing immediately and dispose off safely.

In case of eyes contact:

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

In case of Ingestion:

Do NOT induce vomiting.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

4.2. Most important symptoms and effects, both acute and delayed

None

4.3. Indication of any immediate medical attention and special treatment needed

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

Treatment:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Appropriate Extinguishing Media:

To carbon dioxide.

To dust.

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Foam
Water spray.
Not Recommended Extinguishing Media:
Do not use direct water jets.

- 5.2. Special hazards arising from the substance or mixture
Do not inhale explosion and combustion gases.
Burning produces heavy smoke.
- 5.3. Advice for firefighters
Use suitable breathing apparatus .
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: Accidental release measures

- 6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.
- 6.2. Environmental precautions
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand
- 6.3. Methods and material for containment and cleaning up
Wash with plenty of water.
- 6.4. Reference to other sections
See also section 8 and 13

SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Don't use empty container before they have been cleaned.
Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
See also section 8 for recommended protective equipment.
Advice on general occupational hygiene:
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
naphthalene - CAS: 91-20-3

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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:

Safety goggles.
 Compliant with EN 166

Protection for skin:

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

Protection for hands:

Nitrile or Viton gloves.
 Compliant with EN 374.

Respiratory protection:

Not needed for normal use.

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:	N.A.	--	--
Melting point/freezing point:	N.A.	--	--
Boiling point or initial boiling point and boiling range:	N.A.	--	--

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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:	0.825 g/ml	--	--
Relative vapour density:	N.A.	--	--
Particle characteristics:			
Particle size:	N.A.	--	--

9.2. Other information

Properties	Value	Method:	Notes:
Viscosity:	1.9 mm ² /s @40°C	--	--

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.

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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
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 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

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- g) reproductive toxicity:
Test: NOAEL - Route: Oral - Species: Rat = 1000 mg/kg
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
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
- 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.
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.
Reuse if possible. Act in accordance with the local and national laws in force.

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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-Environmental 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)

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

Pronto all'Usa

Volatile Organic compounds - VOCs = 95.48 %

Volatile Organic compounds - VOCs = 954.78 g/Kg

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Volatile CMR substances = 0.00 %
Halogenated VOCs which are assigned the risk phrase R40 = 0.00 %
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:
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

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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

This safety data sheet has been completely updated in compliance to Regulation 2020/878. 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.



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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, 30/07/2019

Substance identity

Chemical name	GASOLINE G17 BASF
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1. **ES 1** Consumer use; Fuels (PC13)
2. **ES 2** Widespread use by professional workers
3. **ES 3** Use at industrial site

1. ES 1 Consumer use; Fuels (PC13)

1.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	30/07/2019 - 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

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)

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

Maximum allowable site tonnage (MSafe): 90000 kg

Release type: Continuous release

Emission days: 365 days per year

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

Waste treatment

Discharge to aquatic environment is restricted by law and industry prohibits release.

Waste - minimum efficiency of: 94.6 %

External recovery and recycling 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

Receiving surface water flow: 2000 m³/day

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

Product Categories Fuels (PC13)

1.3 Exposure estimation and reference to its source

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

Release route	Release rate	Release estimation method
Air	0.01 %	N/A

Water	0.001 %	N/A
soil	0.001 %	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	30/07/2019 - 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	ERC4 - ERC2
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Worker Contributing Scenario

CS2 General use from professional operators	PROC10 - PROC15
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2.2 Conditions of use affecting exposure

2.2. CS1: Environment Contributing Scenario: Covered by (ERC4, ERC2)

Environmental release categories	Use of non-reactive processing aid at industrial site (no inclusion into or onto article) - Formulation into mixture (ERC4, ERC2)
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Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site 30 kg

Maximum allowable site tonnage (MSafe): 130000 kg

Release type: Continuous release

Emission days: 20 days per year

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

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 (PROC10, PROC15)

Process Categories	Roller application or brushing - Use as laboratory reagent (PROC10, PROC15)
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2.3 Exposure estimation and reference to its source

2.3. CS1: Environment Contributing Scenario: Covered by (ERC4, ERC2)

Release route	Release rate	Release estimation method
Air	2.5 %	N/A
Water	2 %	N/A

soil	0.01 %	N/A
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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 Use at industrial site

3.1 TITLE SECTION

Exposure Scenario name	Fuel
Date - Version	30/07/2019 - 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	ERC8a
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Worker Contributing Scenario

CS2 Industrial	PROC10 - PROC15
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3.2 Conditions of use affecting exposure

3.2. CS1: Environment Contributing Scenario: Covered by (ERC8a)

Environmental release categories	Widespread use of non-reactive processing aid (no inclusion into or onto article, indoor) (ERC8a)
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Amount used, frequency and duration of use (or from service life)

Amounts used:

Daily amount per site 0.001 kg

Maximum allowable site tonnage (MSafe): 23 kg

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: = 94.6 %

STP effluent (m³/day): 2000

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

Waste treatment

Product residual disposal complies with applicable regulations.

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

3.2. CS2: Worker Contributing Scenario: Industrial (PROC10, PROC15)

Process Categories	Roller application or brushing - Use as laboratory reagent (PROC10, PROC15)
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3.3 Exposure estimation and reference to its source

3.3. CS1: Environment Contributing Scenario: Covered by (ERC8a)

Release route	Release rate	Release estimation method

Air	50 %	N/A
Water	50 %	N/A
soil	0 %	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
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
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Worker Contributing Scenario

CS2 Industrial	PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16
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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)
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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)
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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
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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
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Worker Contributing Scenario

CS2 Industrial	PROC1 - PROC2 - PROC3 - PROC8a - PROC8b - PROC16
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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)
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Amount used, frequency and duration of use (or from service life)

Amounts used:

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

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

Technical and organisational conditions and measures

Control measures to prevent releases

Treat air emission to provide the required removal efficiency of (%):	Air - minimum efficiency of: 95 %
Prevent discharge of undissolved substance to or recover from onsite wastewater.	

Conditions and measures related to sewage treatment plant

STP type:

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

STP effluent (m³/day): 2000

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

Waste treatment

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

Other conditions affecting environmental exposure

Local marine water dilution factor: 100

Local freshwater dilution factor: 10

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

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