Arc Methylated Spirit

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
Issue date: 27/09/2023 Version: 1.0

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

1.1. Product identifier

Product form	:	Mixture
Product name	:	Arc Methylated Spirit
UFI	:	W500-C029-G00E-DEA6
Product code	:	MESP001
Product group	:	End product

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

1.2.1. Relevant identified uses

Use of the substance/mixture	:	Fuel for camping stoves and fondues. Glass cleaner.

1.2.2. Uses advised against

Restrictions on use	:	Cosmetics, personal care products

1.3. Details of the supplier of the safety data sheet

Supplier
Arc Building Products
IDA Business & Technology Park
Ballynattin
Arklow
Co. Wicklow
Ireland
+353 (0)402 32370
sales@arcbuildingproducts.ie

1.4. Emergency telephone number

Emergency number : +353 (0)402 32370
(Office hours only)
NHS 111 - General Public (24 Hour service)

Country	Organisation/Company	Address	Emergency number
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals-24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)

Also, in the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 2	H225
Serious eye damage/eye irritation, Category 2	H319

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

GHS02 GHS07

Contains (CLP) : Ethanol

Signal word (CLP) : Danger

Hazard statements (CLP) : H225 - Highly flammable liquid and vapour.
H319 - Causes serious eye irritation.

Precautionary statements (CLP) : P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P280 - Wear protective gloves, protective clothing, eye protection, face protection.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P403+P235 - Store in a well-ventilated place. Keep cool.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Supplementary precautionary statements (CLP) : 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.
P264 - Wash hands, forearms and face thoroughly after handling
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ethanol	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5 EU REACH Registration-No.: 01-2119457610-43-XXXX	≥ 80	Flam. Liq. 2, H225 Eye Irrit. 2, H319
propan-2-ol	CAS-No.: 67-63-0 EC-No.: 200-661-7 EC Index-No.: 603-117-00-0 EU REACH Registration-No.: 01-2119457558-25-XXXX	≥ 1 – < 5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
butanone	CAS-No.: 78-93-3 EC-No.: 201-159-0 EC Index-No.: 606-002-00-3 EU REACH Registration-No.: 01-2119457290-43-XXXX	≥ 1 – < 5	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 EUH066

Full text of H- and EUH-statements: see section 16

Specific concentration limits:		
Name	**Product identifier**	**Specific concentration limits**
ethanol	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5	(50 ≤C ≤ 100) Eye Irrit. 2, H319

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Remove victim to uncontaminated area. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Move the affected person away from the contaminated area and into the fresh air. Get medical advice/attention. Give oxygen or artificial respiration if necessary.

First-aid measures after skin contact : After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water. Wash with plenty of water/….

First-aid measures after eye contact : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses, if present and easy to do. Continue rinsing.

First-aid measures after ingestion : Get immediate medical advice/attention. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. Keep at rest.

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

Symptoms/effects : The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Symptoms/effects after inhalation : At high concentrations, the vapours can be irritating to the respiratory system. May have a narcotic effect at high concentrations. Other symptoms: Headache, dizziness, nausea, unconsciousness.

Symptoms/effects after skin contact : Repeated exposure may cause skin dryness or cracking. Irritation.

Symptoms/effects after eye contact : Eye irritation. Redness.

Symptoms/effects after ingestion : Ingestion may cause nausea and vomiting. Abdominal pain, nausea. Swallowing a small quantity of this material will result in serious health hazard. Liquid with low viscosity. May result in aspiration into the lungs. Product entering lungs lead to the rapid development of very serious inhalation pulmonary lesions (medical survey during 48 hours).

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO2).

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	:	Heavier than air, vapours may travel long distances along ground, ignite and flash back to source. Highly flammable liquid and vapour.
Explosion hazard	:	Solvent vapours may form explosive mixture with air. Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases. Hydrocarbons. Aldehydes. Soot. Gas may accumulate in confined areas. Harmful if inhaled.
Hazardous decomposition products in case of fire	:	Toxic fumes may be released such as acrid smoke and carbon monoxide

5.3. Advice for firefighters

Precautionary measures fire	:	Avoid breathing (dust, vapor, mist, gas).
Firefighting instructions	:	Cool laterally with water containers exposed to flames, even after the fire is extinguished.
Protection during firefighting	:	Wear fire/flame resistant/retardant clothing. In confined space use self-contained breathing apparatus. Full face piece respirator. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents
Other information	:	Keep run-off water out of sewers and water sources. Containers close to fire should be removed or cooled with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Evacuate area.

6.1.1. For non-emergency personnel

Protective equipment	:	Keep unnecessary and unprotected personnel away from the spillage.
Emergency procedures	:	Land spill. Eliminate all ignition sources. Take precautionary measures against static discharges. Stop leak if safe to do so. Do not touch or walk on the spilled product.
Measures in case of dust release	:	Not applicable.

6.1.2. For emergency responders

Protective equipment	:	Do not attempt to take action without suitable protective equipment. Wear recommended personal protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	:	For further information refer to section 8: "Exposure controls/personal protection". More detailed information: See section 11. For disposal of residues refer to section 13 : Disposal considerations" ".

6.2. Environmental precautions

Avoid release to the environment. Very toxic to aquatic life with long lasting effects. Material insoluble in water. may spread in water systems. Do not discharge into drains or the environment. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body.

6.3. Methods and material for containment and cleaning up

For containment	:	Eliminate sources of ignition. No open flames. No smoking.
Methods for cleaning up	:	Stop leak if safe to do so. Absorb excess liquid spillage on inorganic adsorbent material such as fine sand, brick dust etc. Place spent adsorbent in sealed packages and contact specialist waste disposal contractor. Cover the spilled liquid product with foam to slow down evaporation. Use type. Alcohol resistant foam.
Other information	:	Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For further information on disposal refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	:	Avoid contact with skin and eyes. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Eliminate all ignition sources if safe to do so. Use explosion-proof equipment. Containers must be properly grounded before beginning transfer. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapours may accumulate in the container. Wear personal protective equipment. Use only outdoors or in a well-ventilated area.
Hygiene measures	:	Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures	:	Ground/bond container and receiving equipment.
Storage conditions	:	Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. Keep locked up and out of reach of children.
Incompatible products	:	Oxidizing agent, strong acids. Alkali metals
Heat and ignition sources	:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Storage area	:	Keep away from food, drink and animal feedingstuffs.
Packaging materials	:	Carbon steel. Glass. Mild steel. Stainless steel. high density polyethylene (HDPE). Polyethylene terephthalate (PET).

7.3. Specific end use(s)

Fuel for camping stoves and fondues. Glass cleaner (see Section 1.2). See Exposure Scenarios in Annex i.e. after Section 16 of SDS.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

ethanol (64-17-5)		
Republic of Ireland – Occupational Exposure Limit (OEL)		
OEL STEL (15 min)	1000 ppm	(Chemical Agents Code of Practice 2020)
United Kingdom - Occupational Exposure Limits		
OEL 8 h TWA	1000 ppm, 19200 mg/m^3	(EH40/2005)

propan-2-ol (67-63-0)		
Republic of Ireland – Occupational Exposure Limit (OEL)		
OEL 8 h	200 ppm	(Chemical Agents Code of Practice 2020)
OEL STEL (15 min)	400 ppm	(Chemical Agents Code of Practice 2020)
United Kingdom - Occupational Exposure Limits (OEL)		
OEL 8 h TWA	400 ppm, 999 mg/m^3	(EH40/2005)
OEL STEL (15 min)	500 ppm, 1250 mg/m^3	(EH40/2005)

butanone (78-93-3)		
EU - Indicative Occupational Exposure Limit (IOEL)		
IOEL TWA	200 ppm, 600 mg/m^3	(Directive (EU) 2019/1831)
IOEL STEL	300 ppm, 900 mg/m^3	(Directive (EU) 2019/1831)
Republic of Ireland – Occupational Exposure Limit (OEL)		

butanone (78-93-3)			
OEL 8 h	200 ppm, 600 mg/m ³		(Chemical Agents Code of Practice 2020)
OEL STEL (15 min)	300 ppm, 900 mg/m³		(Chemical Agents Code of Practice 2020)
United Kingdom - Occupational Exposure Limits (OEL)			
OEL 8 h TWA	200 ppm, 600 mg/m³	(can be absorbed through skin)	(EH40/2005)
OEL STEL (15 min)	300 ppm, 899 mg/m³	(can be absorbed through skin)	(EH40/2005)

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

ethanol (64-17-5)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	1900 mg/kg bodyweight/day
Long-term - systemic effects, dermal	343 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	950 mg/m³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	950 mg/m³
Long-term - systemic effects, dermal	206 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	114 mg/m³
Long-term - systemic effects,oral	87 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.96 mg/l
PNEC aqua (marine water)	0.79 mg/l
PNEC aqua (intermittent, freshwater)	2.75 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	3.6 mg/kg dwt
PNEC sediment (marine water)	2.9 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.63 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	580 mg/l

propan-2-ol (67-63-0)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	888 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	500 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	26 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	89 mg/m³

propan-2-ol (67-63-0)	
Long-term - systemic effects, dermal	319 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	140.9 mg/l
PNEC aqua (marine water)	140.9 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	552 mg/kg dwt
PNEC sediment (marine water)	552 mg/kg dwt
PNEC (Soil)	
PNEC soil	28 mg/kg dwt

butanone (78-93-3)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	1161 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	600 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects,oral	31 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	106 mg/m³
Long-term - systemic effects, dermal	412 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	55.8 mg/l
PNEC aqua (marine water)	55.8 mg/l
PNEC aqua (intermittent, freshwater)	55.8 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	284.74 mg/kg dwt
PNEC sediment (marine water)	284.7 mg/kg dwt
PNEC (Soil)	
PNEC soil	22.5 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	1000 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	709 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station. Ensure that there is a suitable ventilation system. Mechanical ventilation is recommended. Avoid inhalation of vapours.

8.2.2. Personal protection equipment

Personal protective equipment:
Do not attempt to take action without suitable protective equipment. Appropriate engineering controls.

Personal protective equipment symbol(s):

8.2.2.1. Eye and face protection

Eye protection:
Chemical goggles or safety glasses

Eye protection			
Type	**Field of application**	**Characteristics**	**Standard**
Use splash goggles when eye contact due to splashing is possible	Droplet	With side shields	EN 166

8.2.2.2. Skin protection

Skin and body protection:
Wear suitable protective clothing

Hand protection:
It is recommended that gloves are made of the following material: Butyl rubber. Polyethylene. Viton rubber (fluoro rubber). For short-term / splash protection the following are recommended Neoprene. To protect hands from chemicals, gloves should comply with European Standard EN374

Other skin protection

Materials for protective clothing:
Use appropriate personal protection equipment (PPE). According to the conditions of use, protective gloves, apron, boots, head and face protection must be worn

8.2.2.3. Respiratory protection

Respiratory protection:
In case of insufficient ventilation, wear suitable respiratory equipment. Wear respiratory protection.

Respiratory protection			
Device	**Filter type**	**Condition**	**Standard**
Wear respiratory protection	Type A - High-boiling (>65 °C) organic compounds, Type P2	Vapour protection	EN 405

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment. Do not exceed the occupational exposure limits (OEL). Assure that emissions are compliant with all applicable air pollution control regulations. Emission reduction measures for the specific use situation has to be evaluated: Gas absorbers and scrubbers for relatively small volume structures. Minimisation of the fumigated volume by inflated balloons for large volume structure (e.g. churches, houses). (fumigation). Control measures to prevent releases. Keep container tightly closed. Dispose of this material and its container at hazardous or special waste collection point.

Other information:
Pregnant/breastfeeding women working with the product must not be in direct contact with the product. Persons suffering from asthma or eczema and persons who have chronic lung diseases, skin or respiratory allergies to isocyanates should not work with the material.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Violet.
Appearance	:	Coloured liquid.
Odour	:	Alcoholic
Odour threshold	:	Not available
Melting point/Freezing Point	:	-114 °C
Boiling point	:	78°C @ 1013 hPa
Flammability	:	Not available
Lower explosion limit	:	2.5% V
Upper explosion limit	:	13.5% V
Flash point	:	≈ 12 °C Closed cup.
Auto-ignition temperature	:	363 °C
Decomposition temperature	:	Not available
pH	:	Not available.
Viscosity, kinematic	:	Not available
Viscosity, dynamic	:	≈ 1.2 mPa.s @ 20ºC
Solubility	:	Soluble in water. Miscible with the following materials: Organic solvents.
Partition coefficient n-octanol/water (Log Kow)	:	- 0.35
Vapour pressure	:	5.8 kPa
Vapour pressure at 50 °C	:	Not available
Density	:	0.79 – 0.82 kg/l @ 20 ºC
Relative density	:	Not available
Relative vapour density at 20 °C	:	1.03
Particle characteristics	:	Not applicable
Explosive Properties	:	Not available
Oxidising Properties	:	Not available
Evaporation Rate	:	3.4 BuAc=1

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content	:	100 %

SECTION 10: Stability and reactivity

10.1. Reactivity

May react with: Strong Acids. Strong oxidising agents.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

May react with: Strong Acids. Strong oxidising agents.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition. Never pressurise packagings as they will not resist.

10.5. Incompatible materials

Acids. Oxidizing agent. Alkali Metals

10.6. Hazardous decomposition products

Incomplete combustion and thermolysis may produce gases of varying toxicity such as carbon monoxide, carbon dioxide, various hydrocarbons, aldehydes and soot as well as acrid smoke

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : Based on available data, the classification criteria are not met.
Acute toxicity (dermal) : Based on available data, the classification criteria are not met.
Acute toxicity (inhalation) : Based on available data, the classification criteria are not met.

ethanol (64-17-5)	
LD50 oral	10470 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 inhalation (vapour)	117 – 125 mg//l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

propan-2-ol (67-63-0)	
LD50 oral	5840 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal	16.4 ml/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 inhalation (vapour)	> 10,000 ppm Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

butanone (78-93-3)	
LD50 oral	2193 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method)
LD50 oral	2600 – 5400 mg/kg bodyweight Animal: rat
LD50 dermal	> 10 ml/kg bodyweight Animal: rabbit, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

Skin corrosion/irritation : Based on available data, the classification criteria are not met.
pH: Not available.

Serious eye damage/irritation : Causes serious eye irritation.
pH: Not available.

ethanol (64-17-5)
Irritating to eyes (based on severity from mean scores but no signs of irreversible damage), Animal; rabbit, Guideline: OECD Guideline 405 (Acute Eye Irritation / Corrosion)

propan-2-ol (67-63-0)
Irritating to eyes (based on severity from mean scores but no signs of irreversible damage), Animal; rabbit, Guideline: OECD Guideline 405 (Acute Eye Irritation / Corrosion)

butanone (78-93-3)
Irritating to eyes (based on severity from mean scores but no signs of irreversible damage), Animal; rabbit, Guideline: OECD Guideline 405 (Acute Eye Irritation / Corrosion)

Respiratory or skin sensitisation : Based on available data, the classification criteria are not met.
Germ cell mutagenicity : Based on available data, the classification criteria are not met.
Carcinogenicity : Based on available data, the classification criteria are not met.
Reproductive toxicity : Based on available data, the classification criteria are not met.

STOT-single exposure : Based on available data, the classification criteria are not met.

propan-2-ol (67-63-0)	
STOT-single exposure	May cause drowsiness or dizziness. Narcotic and central nervous system sedation effects observed, Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

butanone (78-93-3)	
STOT-single exposure	May cause drowsiness or dizziness.

STOT-repeated exposure : Based on available data, the classification criteria are not met.

ethanol (64-17-5)	
LOAEL (oral, rat, 90 days)	3200 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
NOAEL (oral, rat, 90 days)	1730 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Remarks on results: other:

Aspiration hazard : Based on available data, the classification criteria are not met.

11.2. Information on other hazards

11.2.1 Endocrine Disrupting Properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

11.2.2 Other Information
No additional information available.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Based on available data, the classification criteria are not met.

Hazardous to the aquatic environment, long–term (chronic) : Based on available data, the classification criteria are not met.

ethanol (64-17-5)	
LC50 96 h - Fish	> 15,300 mg/l Test organisms (species): Pimephales promelas, Guideline: US EPA method E03-05
EC50 24 h- Daphnia magna	> 10000 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae	275 mg/l mg/l Test organisms (species): Chlorella vulgaris
NOEC 120 h - Fish	> 15,300 mg/l Test organisms (species): Danio rerio, Guideline: OECD Guideline 212 (Fish, Short-term Toxicity Test on Embryo and Sac-Fry Stages)
NOEC 10 d - Daphnia magna	9.6 mg/l Test organisms (species): Daphnia magna

propan-2-ol (67-63-0)	
LC50 96 h - Fish	> 9640 mg/l Test organisms (species): Pimephales promelas, Guideline: U.S. Environmental Protection Agency Committee on Methods for Toxicity Tests with Aquatic Organisms (1975) (virtually identical to OECD Guideline 203 except 4 fish per concentration instead of 7 per concentration)
EC50 24 h- Daphnia magna	> 10000 mg/l Test organisms (species): Daphnia magna, Guideline: similar to OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test) but had deviations such as 10 animals per conc, Test period 24 h, Oxygen concentration not measured and No controls.

butanone (78-93-3)	
LC50 96 h - Fish	2973 mg/l Test organisms (species): Pimephales promelas, Guideline: OECD Guideline 203 (Fish, Acute Toxicity Test)
EC50 48 h- Daphnia magna	308 mg/l Test organisms (species): Daphnia magn, Guideline: OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
EC50 72h - Algae [1]	1220 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum), Guideline: OECD Guideline 201 (Alga, Growth Inhibition Test)
NOEC 72 h – Algae	566 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum), Guideline: OECD Guideline 201 (Alga, Growth Inhibition Test)

12.2. Persistence and degradability

No additional information available on mixture.

ethanol (64-17-5)	
Guideline: BOD (Standard methods for the examination of water and waste water 1971. 13th ed, American Public Health Assoc, NY. Test based on measuring dissolved oxygen concentration changes This study examined many chemicals and has been judged reliable by the OECD during the assessment of a number of chemical substances under the OECD HPV programme.	82% degradation (O2 consumption) Conclusion; substance is readily biodegradable

propan-2-ol (67-63-0)	
Guideline: Similar to EU Method C.5 (Degradation: Biochemical Oxygen Demand) but had deviations (No reference substance was reported, and results were only based on one measurement not three.)	Had a BOD5/COD ratio $\geq$ 5. Conclusions: substance is likely to be readily biodegradable

butanone (78-93-3)	
Guideline: OECD Guideline 301 D (Ready Biodegradability: Closed Bottle Test)	98% degradation in 28 days Conclusion; substance is readily biodegradable

12.3. Bioaccumulative potential

No additional information available on mixture

ethanol (64-17-5)
The substance has a low potential for bioaccumulation (log Kow3) and therefore testing for bioaccumulation is not required.

propan-2-ol (67-63-0)
The substance is expected to have a low potential for aquatic / sediment bioaccumulation because it has a low octanol water partition coefficient (log Kow <3)

butanone (78-93-3)
The substance has low log Kow value (<3) and thus has low potential for bioaccumulation.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII

12.6. Endocrine disrupting properties

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

12.7. Other adverse effects

No other adverse effects are known as of yet for this mixture or any substances contained in this mixture

SECTION 13: Disposal considerations

13.1. Waste treatment methods

This product is classified as Hazardous Waste as it is supplied.

Waste generation should be avoided or minimised where possible. When handling waste, the safety precautions applying to handling of the product should be considered. Label the containers containing waste and remove from the area as soon as possible. Label the containers containing waste contaminated material and remove from the area as soon as possible.
Product disposal to sewer should be avoided, if possible, and only be carried out after treatment, and under relevant rules, e.g. Consent to Discharge. Where wastes undergo disposal, external recovery or treatment, it must comply with the requirements of environmental protection, waste disposal legislation and any local authority requirements. If wastes undergo incineration, they must be suitable for it at an approved facility.
Used packaging waste should be reused or recycled, if uncontaminated. Contaminated packaging should be cleaned on site, if appropriate facilities exist, including any relevant rules or permits, or offsite by a specialist provider. Contaminated packaging which cannot be safely cleaned must be treated in the same way as the product, and should only be disposed of as a last resort.

List of waste code is 20 01 13* - Solvents. These codes have been assigned based on the actual composition of the product as supplied. Seek advice from a hazardous waste specialist for waste classification.

SECTION 14: Transport information

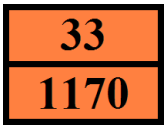
In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1170	UN 1170	UN 1170	UN 1170	UN 1170
14.2. UN proper shipping name				
ETHANOL (ETHYL ALCOHOL) / ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	Ethanol solution	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)	ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
Transport document description				
UN 1170 ETHANOL (ETHYL ALCOHOL) / ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II, (D/E)	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 Ethanol solution, 3, II	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II	UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, II
14.3. Transport hazard class(es)				
3	3	3	3	3

ADR	IMDG	IATA	ADN	RID
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	F1
Special provisions (ADR)	:	144, 601
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001, IBC02, R001
Mixed packing provisions (ADR)	:	MP19
Portable tank and bulk container instructions (ADR)	:	T4
Portable tank and bulk container special provisions (ADR)	:	TP1
Tank code (ADR)	:	LGBF
Vehicle for tank carriage	:	FL
Transport category (ADR)	:	2
Special provisions for carriage - Operation (ADR)	:	S2, S20
Hazard identification number (Kemler No.)	:	33
Orange plates	:	
Tunnel restriction code (ADR)	:	D/E
EAC code	:	•2YE

Transport by sea

Special provisions (IMDG)	:	144
Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
Tank instructions (IMDG)	:	T4
Tank special provisions (IMDG)	:	TP1
EmS-No. (Fire)	:	F-E
EmS-No. (Spillage)	:	S-D
Stowage category (IMDG)	:	A
Properties and observations (IMDG)	:	Colourless, volatile liquids.Pure ETHANOL: flashpoint 13°C c.c. Explosive limits: 3.3% to 19% Miscible with water.

Air transport

PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y341
PCA limited quantity max net quantity (IATA)	:	1L
PCA packing instructions (IATA)	:	353
PCA max net quantity (IATA)	:	5L
CAO packing instructions (IATA)	:	364

CAO max net quantity (IATA)	:	60L
Special provisions (IATA)	:	A3, A58, A180
ERG code (IATA)	:	3L

Inland waterway transport

Classification code (ADN)	:	F1
Special provisions (ADN)	:	144, 601
Limited quantities (ADN)	:	1 L
Excepted quantities (ADN)	:	E2
Carriage permitted (ADN)	:	T
Equipment required (ADN)	:	PP, EX, A
Ventilation (ADN)	:	VE01
Number of blue cones/lights (ADN)	:	1

Rail transport

Classification code (RID)	:	F1
Special provisions (RID)	:	144, 601
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001, IBC02, R001
Mixed packing provisions (RID)	:	MP19
Portable tank and bulk container instructions (RID)	:	T4
Portable tank and bulk container special provisions (RID)	:	TP1
Tank codes for RID tanks (RID)	:	LGBF
Transport category (RID)	:	2
Colis express (express parcels) (RID)	:	CE7
Hazard identification number (RID)	:	33

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

VOC Directive (2004/42)

VOC content : 100 %

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category	Threshold	Annex
Methylethylketone	Butanone	78-93-3	2914 12 00	Category 3		Annex I

Detergent Regulation ((EC) No 648/2004

Product is under the scope of this regulation

15.2. Chemical safety assessment

A Chemical Safety Assessment has been carried out for this mixture.

SECTION 16: Other information

Indication of changes:
Due to change of classification database the revision numbering has been reset. You should therefore look at the revision date rather than the revision number
to ensure you have the most up to date version.

Full text of H- and EUH-statements:	
EUH066	Repeated exposure may cause skin dryness or cracking.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Exposure Scenario - Worker

SECTION 1	**EXPOSURE SCENARIO TITLE**
Title	Use in Cleaning Agents - Professional
Use Descriptor	**Sector of Use**: SU 22 **Process Categories**: PROC 1, PROC 2, PROC 3, PROC 4, PROC 8a, PROC 8b, PROC 10, PROC 11, PROC 13 **Environmental Release Categories**: ERC 8A, ERC 8D
Scope of process	Covers the use as a component of cleaning products including pouring/unloading from drums or containers; and exposures during mixing/diluting in the preparatory phase and cleaning activities (including spraying, brushing, dipping, wiping automated and by hand).

SECTION 2	**OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES**
Additional Information	No exposure assessment presented for the environment.

Section 2.1	**Control of Worker Exposure**
Product Characteristics	
Physical form of product	Liquid, vapour pressure 0.5 - 10 kPa at STP
Concentration of substance in product	Covers use of substance/product up to 100% (unless stated differently).;
Frequency and Duration of Use	
Covers daily exposures up to 8 hours (unless stated differently)	
Other Operational Conditions affecting worker Exposure.	
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented	

Contributing scenarios	**Risk Management Measures**
General measures (eye irritants).	Use suitable eye protection Avoid direct eye contact with product, also via contamination on hands.
Filling / preparation of equipment from drums or containers.	No other specific measures identified
Automated process with (semi) closed systems. Use in contained systems	No other specific measures identified
Semi Automated process. (e.g.: Semi automatic application of floor care and maintenance products)	No other specific measures identified

Manual Surfaces Cleaning Dipping, immersion and pouring	No other specific measures identified
Cleaning with low-pressure washers Rolling, Brushing no spraying	No other specific measures identified
Cleaning with high pressure washers Spraying Indoor	Provide a good standard of controlled ventilation (10 to 15 air changes per hour)
Cleaning with high pressure washers Spraying Outdoor	Limit the substance content in the product to 1 % , or: Avoid carrying out activities involving exposure for more than 15 minutes
Manual Surfaces Cleaning Spraying	No other specific measures identified
Ad hoc manual application via trigger sprays, dipping, etc. Rolling, Brushing	No other specific measures identified
Application of cleaning products in closed systems Outdoor	No other specific measures identified
Cleaning of medical devices	No other specific measures identified
Storage	Store substance within a closed system

Section 2.2	**Control of Environmental Exposure**

SECTION 3	**EXPOSURE ESTIMATION**
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	

Section 3.2 -Environment
No exposure assessment presented for the environment.

SECTION 4	**GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE**

	SCENARIO
Section 4.1 - Health	
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	

Section 4.2 -Environment
No exposure assessment presented for the environment.

Exposure Scenario - Worker

SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use as a fuel - Professional
Use Descriptor	**Sector of Use**: SU 22 **Process Categories**: PROC 1, PROC 2, PROC 3, PROC 8a, PROC 8b, PROC 16 **Environmental Release Categories**: ERC 9A, ERC 9B
Scope of process	Covers the use as a fuel (or fuel additive) and includes activities associated with its transfer, use, equipment maintenance and handling of waste.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for the environment.

Section 2.1	Control of Worker Exposure
Product Characteristics	
Physical form of product	Liquid, vapour pressure 0.5 - 10 kPa at STP
Concentration of substance in product	Covers use of substance/product up to 100% (unless stated differently).;
Frequency and Duration of Use	
Covers daily exposures up to 8 hours (unless stated differently)	
Other Operational Conditions affecting worker Exposure.	
Assumes use at not more than 20°C above ambient temperature (unless stated differently). Assumes a good basic standard of occupational hygiene is implemented	

Contributing scenarios	Risk Management Measures
General measures (eye irritants).	Use suitable eye protection Avoid direct eye contact with product, also via contamination on hands.
Bulk transfers	Transfer via enclosed lines Clear transfer lines prior to de-coupling
Drum/batch transfers	Use drum pumps or carefully pour from container Avoid spillage when withdrawing pump
Refuelling	Avoid spillage when withdrawing pump
Use as a fuel (closed systems)	No other specific measures identified
General exposures (closed systems)	No other specific measures identified

Equipment cleaning and maintenance	Drain down system prior to equipment break-in or maintenance Retain drain downs in sealed storage pending disposal or for subsequent recycle
Storage	Store substance within a closed system

Section 2.2	**Control of Environmental Exposure**

SECTION 3	**EXPOSURE ESTIMATION**
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate workplace exposures unless otherwise indicated.	

Section 3.2 -Environment
No exposure assessment presented for the environment.

SECTION 4	**GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO**
Section 4.1 - Health	
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	

Section 4.2 -Environment
No exposure assessment presented for the environment.

Exposure Scenarios - Consumer

SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use in Cleaning Agents - Consumer
Use Descriptor	**Sector of Use**: SU 21 **Product Categories**: PC3, PC4, PC8 (excipient only), PC9a, PC24, PC35, PC38 **Environmental Release Categories**: ERC 8A, ERC 8D
Scope of process	Covers general exposures to consumers arising from the use of household products sold as washing and cleaning products, aerosols, coatings, de-icers, lubricants and air care products.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for the environment.

Section 2.1	Control of Consumer Exposure
Product Characteristics	
Physical form of product	Liquid, vapour pressure > 10 Pa at STP
Concentration of substance in product	Unless otherwise stated:
	Covers concentration up to (%): 100 %
Amounts used	
Unless otherwise stated:	
For each use event, covers amount up to (g):	13,800
covers skin contact area (cm2):	857.5
Frequency and Duration of Use	
Unless otherwise stated:	
Covers use up to (times/day of use):	1
Covers use up to (hours/event):	4
Other Operational Conditions affecting consumer Exposure	
Unless otherwise stated: Covers use at ambient temperatures. Covers use in room size of 20m3 Covers use under typical household ventilation.	

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Air care products. Air care, instant action (aerosol sprays).	Covers concentrations up to 50 %
	Covers use up to 365 days/year
	Covers use up to 4 times/day of use
	For each use event, covers amount up to (g): 0.1 g
	Covers use in room size of 20 m3
	Covers exposure up to 0.25 hours/event

Air care products. Air care, instant action (aerosol sprays). Biocidal Products (e.g. Disinfectants, pestcontrol) (excipient only).	Covers concentrations up to 50 %
	Covers use up to 365 days/year
	Covers use up to 4 times/day of use
	Covers skin contact area up to 428.00 cm2
	For each use event, covers amount up to 0.1 g
	Covers use in room size of 20 m3
	Covers exposure up to 0.25 hours/event
Air care products. Air care, continuous action (solid and liquid). Biocidal Products (e.g. Disinfectants, pestcontrol) (excipient only).	Covers concentrations up to 50 %
	Covers use up to 365 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 35.70 cm2
	For each use event, covers amount up to 0.48 g
	Covers use in room size of 20 m3
	Covers exposure up to 8.00 hours/event
Air care products. Air care, continuous action (solid and liquid).	Covers concentrations up to 50 %
	Covers use up to 365 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 35.70 cm2
	For each use event, covers amount up to 0.48 g
	Covers use in room size of 20 m3
	Covers exposure up to 8.00 hours/event
Anti-Freeze and De-icing products Washing car window.	Covers concentrations up to 50 %
	Covers use up to 365 days/year
	Covers use up to 1 times/day of use
	For each use event, covers amount up to 0.5 g
	Covers use in a one car garage (34 m3) under typical ventilation.
	Covers use in room size of 34 m3
	Covers exposure up to 0.02 hours/event
Anti-Freeze and De-icing products Pouring into radiator	Covers concentrations up to 50 %
	Covers use up to 365 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 428.00 cm2
	For each use event, covers amount up to 2,000 g
	Covers use in a one car garage (34 m3) under typical ventilation.
	Covers use in room size of 34 m3
	Covers exposure up to 0.17 hours/event
Anti-Freeze and De-icing products Lock de-icer.	Covers concentrations up to 50 %

Safety Data Sheet

	Covers use up to 365 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 214.40 cm2
	For each use event, covers amount up to 4 g
	Covers use in a one car garage (34 m3) under typical ventilation.
	Covers use in room size of 34 m3
	Covers exposure up to 0.25 hours/event
Biocidal Products (e.g. Disinfectants, pestcontrol) (excipient only). Laundry and dish washing products.	Covers concentrations up to 50 %
	Covers use up to 365 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 857.50 cm2
	For each use event, covers amount up to 15 g
	Covers use in room size of 20 m3
	Covers exposure up to 0.50 hours/event
Biocidal Products (e.g. Disinfectants, pestcontrol) (excipient only). Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal cleaners).	Covers concentrations up to 50 %
	Covers use up to 128 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 857.50 cm2
	For each use event, covers amount up to 27 g
	Covers use in room size of 20 m3
	Covers exposure up to 0.33 hours/event
Biocidal Products (e.g. Disinfectants, pestcontrol) (excipient only). Cleaners, trigger sprays (all purpose cleaners,sanitary products, glass cleaners).	Covers concentrations up to 50 %
	Covers use up to 128 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 428.00 cm2
	For each use event, covers amount up to 35 g
	Covers use in room size of 20 m3
	Covers exposure up to 0.17 hours/event
Coatings and Paints, Thinners, paint removers Solvent rich, high solid, water borne paint.	Covers concentrations up to 27.5 %
	Covers use up to 6 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 428.75 cm2
	For each use event, covers amount up to 744 g
	Covers use in room size of 20 m3

	Covers exposure up to 2.20 hours/event
Coatings and Paints, Thinners, paint removers Aerosol spray can.	Covers concentrations up to 50 %
	Covers use up to 2 days/year
	Covers use up to 1 times/day of use
	For each use event, covers amount up to 215 g
	Covers use in a one car garage (34 m3) under typical ventilation.
	Covers use in room size of 34 m3
	Covers exposure up to 0.33 hours/event
Coatings and Paints, Thinners, paint removers Removers (paint-, glue-, wall paper-, sealant-remover).	Covers concentrations up to 50 %
	Covers use up to 3 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 857.50 cm2
	For each use event, covers amount up to 491 g
	Covers use in room size of 20 m3
	Covers exposure up to 2.00 hours/event
Lubricants, Greases and Release Products Liquids.	Covers concentrations up to 100 %
	Covers use up to 4 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 468.00 cm2
	For each use event, covers amount up to 2,200 g
	Covers use in a one car garage (34 m3) under typical ventilation.
	Covers use in room size of 34 m3
	Covers exposure up to 0.17 hours/event
Lubricants, Greases and Release Products Pastes.	Covers concentrations up to 20 %
	Covers use up to 10 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 468.00 cm2
	For each use event, covers amount up to 34 g
	Covers use in room size of 20 m3
Lubricants, Greases and Release Products Sprays.	Covers concentrations up to 50 %
	Covers use up to 6 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 428.75 cm2
	For each use event, covers amount up to 73 g
	Covers use in room size of 20 m3
	Covers exposure up to 0.17 hours/event
Washing and Cleaning Products (including solvent based products). Cleaners, liquids (all purpose cleaners, sanitary products, floor cleaners, glass cleaners, carpet cleaners, metal	Covers concentrations up to 5 %

cleaners).	
	Covers use up to 128 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 857.50 cm2
	For each use event, covers amount up to 27 g
	Covers use in room size of 20 m3
	Covers exposure up to 0.33 hours/event
Washing and Cleaning Products (including solvent based products). Cleaners, trigger sprays (all purpose cleaners,sanitary products, glass cleaners).	Covers concentrations up to 15 %
	Covers use up to 128 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 428.00 cm2
	For each use event, covers amount up to 35 g
	Covers use in room size of 20 m3
	Covers exposure up to 0.17 hours/event
Welding and soldering products, flux products.	Covers concentrations up to 50 %
	Covers use up to 365 days/year
	Covers use up to 1 times/day of use
	For each use event, covers amount up to 12 g
	Covers use in room size of 20 m3
	Covers exposure up to 1.00 hours/event

Section 2.2	**Control of Environmental Exposure**

SECTION 3	**EXPOSURE ESTIMATION**
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise indicated.	

Section 3.2 -Environment
No exposure assessment presented for the environment.

SECTION 4	**GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO**
Section 4.1 - Health	
Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented. Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.	

Section 4.2 -Environment
No exposure assessment presented for the environment.

Exposure Scenarios - Consumer

SECTION 1	EXPOSURE SCENARIO TITLE
Title	Use as a fuel - Consumer
Use Descriptor	**Sector of Use**: SU 21 **Product Categories**: PC13 **Environmental Release Categories**: ERC 9A, ERC 9B
Scope of process	Covers consumer uses in liquid fuels.

SECTION 2	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Additional Information	No exposure assessment presented for the environment.

Section 2.1	Control of Consumer Exposure
Product Characteristics	
Physical form of product	Liquid, vapour pressure > 10 Pa at STP
Concentration of substance in product	Unless otherwise stated:
	Covers concentration up to (%): 100 %

Amounts used	
Unless otherwise stated:	
For each use event, covers amount up to (l):	37,500
covers skin contact area (cm2):	420
Frequency and Duration of Use	
Unless otherwise stated:	
Covers use up to (times/day of use):	0.143
Covers use up to (hours/event):	2
Other Operational Conditions affecting consumer Exposure	
Unless otherwise stated: Covers use at ambient temperatures. Covers use in room size of 20m3 Covers use under typical household ventilation.	

Product Categories	OPERATIONAL CONDITIONS AND RISK MANAGEMENT MEASURES
Fuels. Liquid: Automotive Refuelling.	Covers concentrations up to 100 %
	Covers use up to 52 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 210.00 cm2
	For each use event, covers amount up to 37,500 g
	Covers outdoor use.
	Covers use in room size of 100 m3
	Covers exposure up to 0.05 hours/event
Fuels. Liquid Scooter	Covers concentrations up to 100 %

Refuelling.	
	Covers use up to 52 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 210.00 cm2
	For each use event, covers amount up to 3,750 g
	Covers outdoor use.
	Covers use in room size of 100 m3
	Covers exposure up to 0.03 hours/event
Fuels. Liquid Garden Equipment - Use.	Covers concentrations up to 100 %
	Covers use up to 26 days/year
	Covers use up to 1 times/day of use
	For each use event, covers amount up to 750 g
	Covers outdoor use.
	Covers use in room size of 100 m3
	Covers exposure up to 2.00 hours/event
Fuels. Liquid: Garden Equipment - Refuelling.	Covers concentrations up to 100 %
	Covers use up to 26 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 420.00 cm2
	For each use event, covers amount up to 750 g
	Covers use in a one car garage (34 m3) under typical ventilation.
	Covers use in room size of 34 m3
	Covers exposure up to 0.03 hours/event
Fuels. Liquid: Home space heater fuel.	Covers concentrations up to 100 %
	Covers use up to 26 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 420.00 cm2
	For each use event, covers amount up to 750 g
	Covers use in room size of 20 m3
	Covers exposure up to 8.00 hours/event
Fuels. Liquid: Lamp oil.	Covers concentrations up to 100 %
	Covers use up to 52 days/year
	Covers use up to 1 times/day of use
	Covers skin contact area up to 210.00 cm2
	For each use event, covers amount up to 100 g
	Covers use in room size of 20 m3
	Covers exposure up to 0.01 hours/event

Section 2.2	**Control of Environmental Exposure**

SECTION 3	**EXPOSURE ESTIMATION**
Section 3.1 - Health	
The ECETOC TRA tool has been used to estimate consumer exposures unless otherwise indicated.	

Section 3.2 -Environment
No exposure assessment presented for the environment.

SECTION 4	GUIDANCE TO CHECK COMPLIANCE WITH THE EXPOSURE SCENARIO

Section 4.1 - Health

Predicted exposures are not expected to exceed the DN(M)EL when the Risk Management Measures/Operational Conditions outlined in Section 2 are implemented.
Where other Risk Management Measures/Operational Conditions are adopted, then users should ensure that risks are managed to at least equivalent levels.

Section 4.2 -Environment

No exposure assessment presented for the environment.