SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : BRAKE CLEANER

Product code : BL032491-EN.

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

Removes dirt, grease and oil. Only use the product as directed on the aerosol.

1.3. Details of the supplier of the safety data sheet

Registered company name : Volcke Aerosol Company NV.

Address : Industrielaan 15. B-8520. Kuurne. Belgium.

Telephone : +32 (0) 56 35 17 23. Fax : +32 (0) 56 35 30 69.

info@volcke-aerosol-connection.com

http://www.volcke-aerosol-connection.com

1.4. Emergency telephone number : +32 (0) 56 35 17 23.

Association/Organisation : http://www.volcke-aerosol-connection.com.

Hours of operation : Monday - Thursday : 8:00-17:00; Friday : 8:00-13:00

Other emergency numbers

United Kingdom : National Poisons Information Service : +44 (0)844 892 0111. Ireland : Poisons Information Centre of Ireland : +353 1 809 2166. Malta : Emergency number : 112 ; Medicines & Poisons info Office : 2545 6508.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

Aerosol, Category 1 (Aerosol 1, H222 - H229).

Skin irritation, Category 2 (Skin Irrit. 2, H315).

Eye irritation, Category 2 (Eye Irrit. 2, H319).

Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H336).

Hazardous to the aquatic environment - Chronic hazard, Category 2 (Aquatic Chronic 2, H411).

2.2. Label elements

Detergent mixture (see section 15).

Mixture for aerosol application.

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard pictograms :

GHS02

GHS07

GHS09

Signal Word :

DANGER

Product identifiers :

EC 927-510-4	HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS
EC 931-254-9	HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE
EC 200-661-7	PROPAN-2-OL

Hazard statements :

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary statements - General :

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.

Precautionary statements - Prevention :

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P211	Do not spray on an open flame or other ignition source.
P251	Do not pierce or burn, even after use.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.

Precautionary statements - Response :

P391	Collect spillage.

Precautionary statements - Storage :

P405	Store locked up.
P410 + P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

Precautionary statements - Disposal :

P501	Dispose of container to an approved waste disposal plant.

Other information :

2.3. Other hazards

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture fulfils neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

The mixture does not contains substances> = 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

Intentional misuse of the preparation by concentrating and inhaling the vapours can be harmful or fatal.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

Composition :

Identification	(EC) 1272/2008	Note	%
EC: 927-510-4 REACH: 01-2119475515-33 HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS	GHS07, GHS09, GHS08, GHS02 Dgr Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411		50 <= x % < 100
EC: 931-254-9 REACH: 01-2119484651-34 HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE	GHS07, GHS09, GHS08, GHS02 Dgr Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Chronic 2, H411		25 <= x % < 50
CAS: 106-97-8 EC: 203-448-7 REACH: 01-2119474691-32-XXXX BUTANE (< 0,1 % 1,3-BUTADIENE)	GHS02 Dgr Flam. Gas 1, H220 Press. Gas, H280	C [1] [7]	10 <= x % < 25
CAS: 74-98-6 EC: 200-827-9 REACH: 01-2119486944-21-XXXX PROPANE	GHS02 Dgr Flam. Gas 1, H220 Press. Gas, H280	[1] [7]	10 <= x % < 25
CAS: 67-63-0 EC: 200-661-7 REACH: 01-2119457558-25 PROPAN-2-OL	GHS07, GHS02 Dgr Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	[1]	10 <= x % < 25

CAS: 110-54-3 EC: 203-777-6 REACH: 01-2119480412-44 N-HEXANE	GHS07, GHS09, GHS08, GHS02 Dgr Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Repr. 2, H361f STOT RE 2, H373 Aquatic Chronic 2, H411	[1] [2]	1 <= x % < 2.5
CAS: 124-38-9 EC: 204-696-9 CARBON DIOXIDE	GHS04 Wng Press. Gas, H281	[1] [7]	1 <= x % < 2.5
CAS: 110-82-7 EC: 203-806-2 REACH: 01-2119463273-41 CYCLOHEXANE	GHS07, GHS09, GHS08, GHS02 Dgr Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 M Acute = 1 Aquatic Chronic 1, H410 M Chronic = 1	[1]	0 <= x % < 1

Specific concentration limits:

Identification	Specific concentration limits	ATE
EC: 931-254-9 REACH: 01-2119484651-34 HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE		inhalation: ATE = 259354 mg/l (dust/mist) dermal: ATE = 3350 mg/kg BW oral: ATE = 16750 mg/kg BW
CAS: 67-63-0 EC: 200-661-7 REACH: 01-2119457558-25 PROPAN-2-OL		inhalation: ATE = 30 mg/l 4h (vapours) dermal: ATE = 13900 mg/kg BW oral: ATE = 5840 mg/kg BW
CAS: 110-54-3 EC: 203-777-6 REACH: 01-2119480412-44 N-HEXANE		inhalation: ATE = 176 mg/l 4h (vapours) oral: ATE = 25000 mg/kg BW

Information on ingredients :

(Full text of H-phrases: see section 16)

[7] Propellant gas

[1] Substance for which maximum workplace exposure limits are available.

[2] Carcinogenic, mutagenic or reprotoxic (CMR) substance.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. description of first aid measures

In the event of exposure by inhalation :

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

In the event of splashes or contact with eyes :

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists : Get medical advice/attention.

In the event of splashes or contact with skin :

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognised cleaner.

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of an allergic reaction, seek medical attention.

In the event of swallowing :

Do not give the patient anything orally.

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention immediately, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

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

See section 11.

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

If you feel unwell, seek medical advice (show the label if possible). If symptoms persist, always call a doctor.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

If the aerosols are exposed to a fire : keep containers cool by spraying with water from a protected position.

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive
- foam
- multipurpose ABC powder
- BC powder
- carbon dioxide (CO_2)

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO_2)

In a fire or if heated, a pressure increase will occur and the container may burst. Bursting aerosol containers may be propelled from a fire at high speed. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

5.3. Advice for firefighters

Fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

If possible, stop the product stream. Spray from a protected position till the containers are cool. If possible, take the aerosols outside. Keep public at a distance.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Because of the organic solvents contained in the mixture, eliminate sources of ignition and ventilate the area.

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

If the product contaminates waterways, rivers or drains, alert the relevant authorities in accordance with statutory procedures

Use drums to dispose of collected waste in compliance with current regulations (see section 13).

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Remove contaminated clothing and protective equipment before entering eating areas.

Fire prevention :

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Do not spray on a naked flame or any incandescent material.

Do not pierce or burn, even after use.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Do not breathe in aerosols.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Avoid skin and eye contact with this mixture.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

Never open the packages under pressure.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep out of reach of children.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C.

Storage in a dry, frost-free and well ventilated place.

Store upright.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (2019/1831, 2017/2398, 2017/164, 2009/161, 2006/15/CE, 2000/39/CE, 98/24/CE) :

CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :
110-54-3	72	20	-	-	-
124-38-9	9000	5000	-	-	-
110-82-7	700	200	-	-	-

- UK / WEL (Workplace exposure limits, EH40/2005, Fourth Edition 2020) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
106-97-8	600 ppm 1450 mg/m3	750 ppm 1810 mg/m3		Carc	
67-63-0	400 ppm 999 mg/m³	500 ppm 1250 mg/m³			
110-54-3	20 ppm 72 mg/m³				
124-38-9	5000 ppm 9150 mg/m³	15000 ppm 27400 mg/m³			
110-82-7	100 ppm 350 mg/m³	300 ppm 1050 mg/m³			

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : RCP-TWA-mg/m³ : 1300

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : RCP-TWA-mg/m³ : 700

- Ireland (Code of practice for the Chemical Agents Regulations, 2016) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
106-97-8	1000 ppm				
74-98-6	1000 ppm				
67-63-0	200 ppm	400 ppm			
110-54-3	20 ppm 72 mg/m³				
124-38-9	5000 ppm 9000 mg/m³	15000 ppm 27000 mg/m³			
110-82-7	200 ppm 700 mg/m³				

- Malta (L.N. 353/2007) :

CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
110-54-3	20 ppm 72 mg/m3				
124-38-9	5000 ppm 9000 mg/m3				
110-82-7	200 ppm 700 mg/m3				

Derived no effect level (DNEL) or derived minimum effect level (DMEL):

CYCLOHEXANE (CAS: 110-82-7)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	2016 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Short term systemic effects.
DNEL :	1400 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Short term local effects.
DNEL :	1400 mg of substance/m3

Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	700 mg of substance/m3
Exposure method:	Inhalation.
Potential health effects:	Long term local effects.
DNEL :	700 mg of substance/m3

N-HEXANE (CAS: 110-54-3)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	11 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	75 mg of substance/m3

PROPAN-2-OL (CAS: 67-63-0)

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	888 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	500 mg of substance/m3
Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	26 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	319 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	89 mg of substance/m3

HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE

Final use:	**Workers.**
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.
DNEL :	13964 mg/kg body weight/day
Exposure method:	Inhalation.
Potential health effects:	Long term systemic effects.
DNEL :	5306 mg of substance/m3
Final use:	**Consumers.**
Exposure method:	Ingestion.
Potential health effects:	Long term systemic effects.
DNEL :	1301 mg/kg body weight/day
Exposure method:	Dermal contact.
Potential health effects:	Long term systemic effects.

DNEL : 1377 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 1131 mg of substance/m3

HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS

Final use: **Workers.**
Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 300 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 2085 mg of substance/m3

Final use: **Consumers.**
Exposure method: Ingestion.
Potential health effects: Long term systemic effects.
DNEL : 149 mg/kg body weight/day

Exposure method: Dermal contact.
Potential health effects: Long term systemic effects.
DNEL : 149 mg/kg body weight/day

Exposure method: Inhalation.
Potential health effects: Long term systemic effects.
DNEL : 477 mg of substance/m3

Predicted no effect concentration (PNEC):

CYCLOHEXANE (CAS: 110-82-7)

Environmental compartment: Soil.
PNEC : 3.38 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.207 mg/l

Environmental compartment: Sea water.
PNEC : 0.207 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 16.68 mg/kg

Environmental compartment: Marine sediment.
PNEC : 16.68 mg/kg

N-HEXANE (CAS: 110-54-3)

Environmental compartment: Soil.
PNEC : 0.44 mg/kg

Environmental compartment: Fresh water.
PNEC : 0.086 mg/l

Environmental compartment: Sea water.
PNEC : 0.086 mg/l

Environmental compartment: Fresh water sediment.
PNEC : 1.0 mg/kg

Environmental compartment: Marine sediment.

PNEC :	1.0 mg/kg

PROPAN-2-OL (CAS: 67-63-0)

Environmental compartment:	Soil.
PNEC :	28 mg/kg
Environmental compartment:	Fresh water.
PNEC :	140.9 mg/l
Environmental compartment:	Sea water.
PNEC :	140.9 mg/l
Environmental compartment:	Intermittent waste water.
PNEC :	140.9 mg/l
Environmental compartment:	Fresh water sediment.
PNEC :	552 mg/kg
Environmental compartment:	Marine sediment.
PNEC :	552 mg/kg
Environmental compartment:	Waste water treatment plant.
PNEC :	2251 mg/l

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

Do not spray in the direction of the eyes.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- Nitrile rubber (butadiene-acrylonitrile copolymer rubber (NBR))

- PVA (Polyvinyl alcohol)

Not necessary at efficient use. Wash your hands after contact with skin.

- Body protection

Avoid skin contact.

Wear suitable protective clothing.

Suitable type of protective clothing :

In the event of substantial spatter, wear liquid-tight protective clothing against chemical risks (type 3) in accordance with EN14605/A1 to prevent skin contact.

In the event of a risk of splashing, wear protective clothing against chemical risks (type 6) in accordance with EN13034/A1 to prevent skin contact.

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

Not necessary at efficient use. Wash skin that has been in contact with the product, with water and soap.

- Respiratory protection

Avoid inhaling vapors.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Type of FFP mask :

Wear a disposable half-mask aerosol filter in accordance with standard EN149/A1.

Category :

- FFP1

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- A1 (Brown)

Particle filter according to standard EN143 :

- P1 (White)

Do not breathe spray. Use only in well-ventilated areas.

Exposure controls linked to environmental protection

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state	
Physical state :	Fluid liquid.
Colour	
Colourless, clear	
Odour	
Odour threshold :	Not stated.
Odour :	Specific
Freezing point	
Freezing point / Freezing range :	Not stated.
Boiling point or initial boiling point and boiling range	
Boiling point/boiling range :	Not relevant.
Flammability	
Flammability (solid, gas) :	Not stated.
Flammability :	Extremely flammable
Lower and upper explosion limit	
Explosive properties, lower explosivity limit (%) :	Not stated.
Explosive properties, upper explosivity limit (%) :	Not stated.
Flash point	
Flash point interval :	Not relevant.
Auto-ignition temperature	
Self-ignition temperature :	Not relevant.
Decomposition temperature	
Decomposition point/decomposition range :	Not relevant.
pH	
pH (aqueous solution) :	Not stated.
pH :	Not relevant.
Kinematic viscosity	
Viscosity :	Not stated.
Solubility	
Water solubility :	Insoluble.

Fat solubility :	Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water :	Not stated.

Vapour pressure

Vapour pressure (50°C) :	Not relevant.

Density and/or relative density

Density :	0.625

Relative vapour density

Vapour density :	Not stated.

9.2. Other information

VOC (g/l) :	615.00
Pressure at 20°C :	± 5.0 bar
Pressure at 50°C :	< 10 bar
Water content :	< 0.3 % w/w

9.2.1. Information with regard to physical hazard classes

No data available.

Aerosols

Chemical combustion heat :	>= 30 kJ/g.

9.2.2. Other safety characteristics

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

Under normal conditions of storage and use, hazardous reactions will not occur.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- heat
- flames and hot surfaces
- frost

Protect from sunlight and do not expose to temperatures exceeding 50°C. Keep away from heat and sources of ignition. Storage in a dry, frost-free and well ventilated place.

10.5. Incompatible materials

No materials known by which a dangerous reaction can occur.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)

The product is stable. Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11 : TOXICOLOGICAL INFORMATION

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

Exposure to vapours from solvents in the mixture in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Symptoms produced will include headaches, numbness, dizziness, fatigue, muscular asthenia and, in extreme cases, loss of consciousness.

May cause irreversible damage to the skin; namely inflammation of the skin or the formation of erythema and eschar or oedema following exposure up to four hours.

Repeated or prolonged contact with the mixture may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

Splashes in the eyes may cause irritation and reversible damage

Narcotic effects may occur, such as drowsiness, narcosis, decreased alertness, loss of reflexes, lack of coordination or dizziness.

Effects may also occur in the form of violent headaches or nausea, judgement disorder, giddiness, irritability, fatigue or memory disturbance.

11.1.1. Substances

Acute toxicity :

PROPANE (CAS: 74-98-6)

Inhalation route (Dusts/mist) :	LC50 > 10 mg/l

BUTANE (< 0,1 % 1,3-BUTADIENE) (CAS: 106-97-8)

Inhalation route (Vapours) :	LC50 > 10 mg/l

CYCLOHEXANE (CAS: 110-82-7)

Oral route :	LD50 > 5000 mg/kg Species : Rat OECD Guideline 401 (Acute Oral Toxicity)
Dermal route :	LD50 > 2000 mg/kg Species : Rabbit OECD Guideline 402 (Acute Dermal Toxicity)
Inhalation route (Vapours) :	LC50 > 32880 mg/l Species : Rat OECD Guideline 403 (Acute Inhalation Toxicity) Duration of exposure : 4 h

N-HEXANE (CAS: 110-54-3)

Oral route :	LD50 = 25000 mg/kg Species : Rat
Dermal route :	LD50 > 2000 mg/kg Species : Rabbit
Inhalation route (Vapours) :	LC50 = 176 mg/l Species : Rat Duration of exposure : 4 h

PROPAN-2-OL (CAS: 67-63-0)

Oral route :	LD50 = 5840 mg/kg Species : Rat OECD Guideline 401 (Acute Oral Toxicity)
Dermal route :	LD50 = 13900 mg/kg Species : Rabbit OECD Guideline 402 (Acute Dermal Toxicity)
Inhalation route (Vapours) :	LC50 = 30 mg/l Species : Rat OECD Guideline 403 (Acute Inhalation Toxicity) Duration of exposure : 4 h

HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE

Oral route :	LD50 = 16750 mg/kg Species : Rat OECD Guideline 401 (Acute Oral Toxicity)
Dermal route :	LD50 = 3350 mg/kg Species : Rabbit

OECD Guideline 402 (Acute Dermal Toxicity)

Inhalation route (Dusts/mist) : LC50 = 259354 mg/m3
Species : Rat
OECD Guideline 403 (Acute Inhalation Toxicity)

HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS

Oral route : LD50 > 5840 mg/kg
Species : Rat
OECD Guideline 401 (Acute Oral Toxicity)

Dermal route : LD50 > 2920 mg/kg
Species : Rat
OECD Guideline 402 (Acute Dermal Toxicity)

Inhalation route (Vapours) : LC50 > 23.3 mg/l
Species : Rat
OECD Guideline 403 (Acute Inhalation Toxicity)
Duration of exposure : 4 h

Skin corrosion/skin irritation :

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : Moderately irritating to skin with prolonged exposure.

n-Hexane : Irritating to skin.

Propan-2-ol : Repeated exposure may cause skin dryness or cracking.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : Skin contact can cause eczema due to damage. Repeated or prolonged skin contact may cause dehydration and defatting.

Cyclohexane : May cause skin irritation in susceptible persons.

Butane/Isobutane/Propane : Based on available data, the classification criteria are not met.

Carbon Dioxide : Not classified as irritating to the skin.

Serious damage to eyes/eye irritation :

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : May cause mild, short-lasting discomfort to eyes.

n-Hexane : Not irritating to eyes.

Propan-2-ol : Causes serious eye irritation.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : May cause mild, short-lasting discomfort to eyes.

Cyclohexane : No adverse effects expected. Vapors may cause irritation to the eyes, respiratory system and the skin.

Butane/Isobutane/Propane : Based on available data, the classification criteria are not met.

Carbon Dioxide : Not classified as irritating to the eyes.

Respiratory or skin sensitisation :

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : Not likely to be sensitizing.

n-Hexane : Not sensitizing.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : Not sensitizing.

Cyclohexane : Not sensitizing.

Butane/Isobutane/Propane : Based on available data, the classification criteria are not met.

Carbon Dioxide : Not classified as sensitizing for skin or inhalation.

PROPAN-2-OL (CAS: 67-63-0)

Guinea Pig Maximisation Test (GMPT) : Non-sensitiser.
Species : Guinea pig
OECD Guideline 406 (Skin Sensitisation)

Buehler Test : Non-sensitiser.
Species : Guinea pig
OECD Guideline 406 (Skin Sensitisation)

Germ cell mutagenicity :

Carbon Dioxide : Not classified for mutagenic.

CYCLOHEXANE (CAS: 110-82-7)

No mutagenic effect.

N-HEXANE (CAS: 110-54-3)
No mutagenic effect.

PROPAN-2-OL (CAS: 67-63-0)
No mutagenic effect.

Mutagenesis (in vivo) : Negative.
Species : Mouse
OECD Guideline 474 (Mammalian Erythrocyte Micronucleus Test)

Mutagenesis (in vitro) : Negative.
Species : Bacteria
OECD Guideline 471 (Bacterial Reverse Mutation Assay)

PROPANE (CAS: 74-98-6)
No mutagenic effect.

BUTANE (< 0,1 % 1,3-BUTADIENE) (CAS: 106-97-8)
No mutagenic effect.

HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE
No mutagenic effect.

HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS
No mutagenic effect.

Carcinogenicity :

Carbon Dioxide : Not classified for carcinogenicity.

CYCLOHEXANE (CAS: 110-82-7)
Carcinogenicity Test : Negative.
No carcinogenic effect.

N-HEXANE (CAS: 110-54-3)
Carcinogenicity Test : Negative.
No carcinogenic effect.
Species : Rat

PROPAN-2-OL (CAS: 67-63-0)
Carcinogenicity Test : Negative.
No carcinogenic effect.
Species : Mouse
OECD Guideline 451 (Carcinogenicity Studies)

PROPANE (CAS: 74-98-6)
Carcinogenicity Test : Negative.
No carcinogenic effect.

BUTANE (< 0,1 % 1,3-BUTADIENE) (CAS: 106-97-8)
Carcinogenicity Test : Negative.
No carcinogenic effect.

HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE
Carcinogenicity Test : Negative.
No carcinogenic effect.

HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS
Carcinogenicity Test : Negative.
No carcinogenic effect.

Reproductive toxicant :

Carbon Dioxide : Not classified for reproductive toxicity.

CYCLOHEXANE (CAS: 110-82-7)
No toxic effect for reproduction
Study on fertility : Species : Rat
OECD Guideline 414 (Prenatal Developmental Toxicity Study)
Study on development : Species : Rat
OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

N-HEXANE (CAS: 110-54-3)
Suspected of damaging fertility.

PROPAN-2-OL (CAS: 67-63-0)
No toxic effect for reproduction
Study on fertility : Species : Rat
OECD Guideline 414 (Prenatal Developmental Toxicity Study)
Study on development : Species : Rat
OECD Guideline 416 (Two-Generation Reproduction Toxicity Study)

PROPANE (CAS: 74-98-6)
No toxic effect for reproduction

BUTANE (< 0,1 % 1,3-BUTADIENE) (CAS: 106-97-8)
No toxic effect for reproduction

HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE
No toxic effect for reproduction

HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS
No toxic effect for reproduction

Specific target organ systemic toxicity - single exposure :

Propan-2-ol : To human : Vapours may cause drowsiness and dizziness.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : To human : May cause drowsiness or dizziness.

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : May cause drowsiness or dizziness.

Butane/Isobutane/Propane : Based on available data, the classification criteria are not met.

Carbon Dioxide : Not classified for subchronic toxicity.

Specific target organ systemic toxicity - repeated exposure :

Propan-2-ol : To human : Not classified for organ toxicity. By male rats : The product can affect the kidneys and liver, resulting in functional disturbances.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : To human : Not classified for organ toxicity. For animals : No effects known.

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : Not likely to cause organ damage.

Butane/Isobutane/Propane : Based on available data, the classification criteria are not met.

Carbon Dioxide : On continuous / repeated exposure / contact : Change in the haemogramme/blood composition. Low arterial pressure.

PROPAN-2-OL (CAS: 67-63-0)
Oral route : C = 900 mg/kg bodyweight/day
Species : Rat
Duration of exposure : 90 days
OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)

Aspiration hazard :

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : May be fatal if swallowed and enters airways.

n-Hexane : May be harmful if swallowed and enters airways.

Propan-2-ol : Aspiration into the lungs when swallowed or vomited may cause chemical pneumonitis which can be fatal.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : Symptoms of lung oedema mostly reveal after a few hours, intensified by physical effort. May be fatal if swallowed and enters airways.

Cyclohexane : May be fatal if swallowed and enters airways.

Butane/Isobutane/Propane : Not applicable to gases and gas mixtures.

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

Toxic to aquatic life with long lasting effects.

The product must not be allowed to run into drains or waterways.

12.1. Toxicity

12.1.1. Substances

N-HEXANE (CAS: 110-54-3)

Fish toxicity :	LC50 = 12.51 mg/l Species : Oncorhynchus mykiss Duration of exposure : 96 h Other guideline
Crustacean toxicity :	EC50 = 21.85 mg/l Species : Daphnia magna Duration of exposure : 48 h Other guideline
Algae toxicity :	ECr50 = 9.29 mg/l Species : Pseudokirchnerella subcapitata Duration of exposure : 72 h Other guideline

HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE

Fish toxicity :	LC50 > 1 mg/l Species : Oryzias latipes Duration of exposure : 48 h
Crustacean toxicity :	EC50 = 3.87 mg/l Species : Daphnia magna Duration of exposure : 48 h
Algae toxicity :	ECr50 = 55 mg/l Species : Pseudokirchnerella subcapitata Duration of exposure : 72 h

HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS

Fish toxicity :	LC50 > 13.4 mg/l Species : Oncorhynchus mykiss Duration of exposure : 96 h
Crustacean toxicity :	EC50 = 3 mg/l Species : Daphnia magna Duration of exposure : 48 h EC50 mg/l Species : Daphnia magna Duration of exposure : 21 days NOEC = 1 mg/l Species : Daphnia magna Duration of exposure : 21 days
Algae toxicity :	ECr50 = 20 mg/l Species : Pseudokirchnerella subcapitata Duration of exposure : 72 h

CYCLOHEXANE (CAS: 110-82-7)

Fish toxicity :	LC50 = 4.53 mg/l Species : Pimephales promelas Duration of exposure : 96 h OECD Guideline 203 (Fish, Acute Toxicity Test)
Crustacean toxicity :	EC50 = 0.9 mg/l Species : Daphnia magna Duration of exposure : 48 h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Algae toxicity :	ECr50 = 9.317 mg/l Species : Selenastrum capricornutum Duration of exposure : 72 h OECD Guideline 201 (Alga, Growth Inhibition Test)

CARBON DIOXIDE (CAS: 124-38-9)

Fish toxicity :	LC50 = 35 mg/l Species : Oncorhynchus mykiss

PROPAN-2-OL (CAS: 67-63-0)

Fish toxicity :	LC50 = 9640 mg/l Species : Pimephales promelas Duration of exposure : 96 h OECD Guideline 203 (Fish, Acute Toxicity Test)
Crustacean toxicity :	EC50 = 9714 mg/l Species : Daphnia magna Duration of exposure : 24 h OECD Guideline 202 (Daphnia sp. Acute Immobilisation Test)
Algae toxicity :	ECr50 > 1000 mg/l Species : Scenedesmus subspicatus Duration of exposure : 72 h EC50 mg/l Species : Scenedesmus subspicatus Duration of exposure : 72 h NOEC = 1000 mg/l Species : Scenedesmus subspicatus Duration of exposure : 7 days

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

Butane/Isobutane/Propane : Expected to be readily biodegradable.

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : Expected to be readily biodegradable. Transformation due to hydrolysis and due to photolysis is not expected to be significant. Expected to degrade rapidly in air.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : Expected to be readily biodegradable. Transformation due to hydrolysis and due to photolysis is not expected to be significant. Expected to degrade rapidly in air.

12.2.1. Substances

CARBON DIOXIDE (CAS: 124-38-9)

Biodegradability :	no degradability data is available, the substance is considered as not degrading quickly.

PROPAN-2-OL (CAS: 67-63-0)

Biodegradability :	Rapidly degradable.

PROPANE (CAS: 74-98-6)

Biodegradability : Rapidly degradable.

BUTANE (< 0,1 % 1,3-BUTADIENE) (CAS: 106-97-8)
Biodegradability : Rapidly degradable.

HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE
Biodegradability : Rapidly degradable.

HYDROCARBONS, C7, N-ALKANES, ISOALKANES, CYCLICS
Biodegradability : no degradability data is available, the substance is considered as not degrading quickly.

CYCLOHEXANE (CAS: 110-82-7)
Chemical oxygen demand : DCO = 3.425 g/g

Five-day biochemical oxygen demand : DBO5 = 3.138 g/g

Biodegradability : Rapidly degradable.
DBO5/DCO = 0.92

N-HEXANE (CAS: 110-54-3)
Chemical oxygen demand : DCO = 3.527 g/g

Five-day biochemical oxygen demand : DBO5 = 3.064 g/g

Biodegradability : Rapidly degradable.
DBO5/DCO = 0.87

12.3. Bioaccumulative potential

Propan-2-ol : No bioaccumulation.

Butane/Isobutane/Propane : Not expected to be dangerous for the aquatic environment.

n-Hexane : Does not significantly accumulate in organisms.

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : Not determined.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : Not determined.

Cyclohexane : Bioaccumulation not expected.

Carbon dioxide : Not bioaccumulable.

12.3.1. Substances

CYCLOHEXANE (CAS: 110-82-7)
Octanol/water partition coefficient : log Koe = 3.44

Bioaccumulation : BCF = 167

N-HEXANE (CAS: 110-54-3)
Octanol/water partition coefficient : log Koe = 4

Bioaccumulation : BCF = 501.2

PROPAN-2-OL (CAS: 67-63-0)
Octanol/water partition coefficient : log Koe = 0.05
OECD Guideline 107 (Partition Coefficient (n-octanol / water), Shake Flask Method)

12.4. Mobility in soil

Propan-2-ol : Expected to remain in water or migrate through soil.

Butane/Isobutane/Propane : If released into the environment, the product will rapidly disperse into the atmosphere where it will undergo photochemical degradation.

n-Hexane : No data available.

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : Highly volatile, will spread rapidly in air. It is not expected to extract to the sediment and the fraction fixed substances in the waste water.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : Highly volatile, will spread rapidly in air. It is not expected to extract to the sediment and the fraction fixed substances in the waste water.

Cyclohexane : No data available.

Carbon dioxide : No data available.

12.5. Results of PBT and vPvB assessment

Propan-2-ol : PBT/vPvB : No.

n-Hexane : PBT/vPvB : No.

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane : PBT/vPvB : No.

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics : PBT/vPvB : No.

Cyclohexane : PBT/vPvB : No.

Butane/Isobutane/Propane : Not considered to be a PBT or a vPvB.

Carbon Dioxide : The criteria of PBT and vPvB do not apply to inorganic substances.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

Carbon dioxide : Global warming potential. Not dangerous for the ozone layer.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Recycle or dispose of waste in complaince with current legislation, namely the Ordinance on the Avoidance and Disposal of Waste (Waste Ordinance, VVEA, SR 814.600), the Ordinance on Waste from June 22, 2005 (VeVA, SR 814, 610) and DETEC Ordinance on Waste Lists.

Disposal of the product (the unused product, residual quantities, the cured product, emptied but uncleaned packaging) : preferably by an approved waste collector or a specialist disposal company. Suitable containers and methods of waste treatment should be used.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

Codes of wastes (Decision 2014/955/EC, Directive 2008/98/EEC on hazardous waste) :

15 01 10 * packaging containing residues of or contaminated by dangerous substances

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 - ICAO/IATA 2021).

14.1. UN number or ID number

1950

14.2. UN proper shipping name

UN1950=AEROSOLS, flammable

14.3. Transport hazard class(es)

- Classification :

2.1

ADR/RID Label : Limited Quantity : 2.1 is not applicable.

14.4. Packing group

-

14.5. Environmental hazards

- Environmentally hazardous material :

The symbol above is not applicable for "Limited Quantity".

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	2	5F	-	2.1	-	1 L	190 327 344 625	E0	2	D
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage Handling	Segregation	
	2	See SP63	-	See SP277	F-D. S-U	63 190 277 327 344 381 959	E0	- SW1 SW22	SG69	
IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	2.1	-	-	203	75 kg	203	150 kg	A145 A167 A802	E0	
	2.1	-	-	Y203	30 kg G	-	-	A145 A167 A802	E0	

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

14.7. Maritime transport in bulk according to IMO instruments

No data available.

SECTION 15: Regulatory information

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

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/643 (ATP 16)
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/849 (ATP 17)

- Container information:

No data available.

- Particular provisions :

No data available.

- Labelling for detergents (EC Regulation No. 648/2004,907/2006) :

- 30 % and more : aliphatic hydrocarbons

15.2. Chemical safety assessment

A chemical safety assessment has been carried out for the following products or for the substances in these products :

Hydrocarbons, C6, isoalkanes, < 5 % n-hexane

Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics

Propan-2-ol

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapour.
H280	Contains gas under pressure; may explode if heated.
H281	Contains refrigerated gas; may cause cryogenic burns or injury.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
H361f	Suspected of damaging fertility.
H373	May cause damage to organs through prolonged or repeated exposure .
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.

Abbreviations :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.
LC50 : The concentration of a test substance resulting in 50% lethality in a given period.
EC50 : The effective concentration of substance that causes 50% of the maximum response.
ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.
NOEC : The concentration with no observed effect.
REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.
ATE : Acute Toxicity Estimate
BW : Body Weight
DNEL : Derived No-Effect Level
PNEC : Predicted No-Effect Concentration
CMR: Carcinogenic, mutagenic or reprotoxic.
STEL : Short-term exposure limit
TWA : Time Weighted Averages
TLV : Threshold Limit Value (exposure)
AEV : Average Exposure Value.
ADR : European agreement concerning the international carriage of dangerous goods by Road.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
ICAO : International Civil Aviation Organisation
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefahrdungsklasse (Water Hazard Class).
GHS02 : Flame
GHS07 : Exclamation mark
GHS09 : Environment
PBT: Persistent, bioaccumulable and toxic.
vPvB : Very persistent, very bioaccumulable.
SVHC : Substances of very high concern.

Difference Report

Revision: N°3 (01/12/2021) / HCS n°) / Version: N°1 (01/12/2021)
(REACH regulation (EC) n° 1907/2006 - n° 2020/878)

~~Revision: N°2 (31/03/2021) / HCS n°) / Version: N°1 (31/03/2021)~~

SAFETY DATA SHEET

~~(REACH regulation (EC) n° 1907/2006 - n° 2015/830)~~

SECTION 2 : HAZARDS IDENTIFICATION

2.3. Other hazards

The mixture does not contains substances> = 0.1% with endocrine disrupting properties in accordance with the criteria of the Delegated Regulation (EU) 2017/2100 of the Commission or Regulation (EU) 2018/605 of the Commission.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

Specific concentration limits:

Identification	Specific concentration limits	ATE
EC: 931-254-9 REACH: 01-2119484651-34 HYDROCARBONS, C6, ISOALKANES, < 5 % N-HEXANE		inhalation: ATE = 259354 mg/l (dust/mist) dermal: ATE = 3350 mg/kg BW oral: ATE = 16750 mg/kg BW
CAS: 67-63-0 EC: 200-661-7 REACH: 01-2119457558-25 PROPAN-2-OL		inhalation: ATE = 30 mg/l 4h (vapours) dermal: ATE = 13900 mg/kg BW oral: ATE = 5840 mg/kg BW

CAS: 110-54-3 EC: 203-777-6 REACH: 01-2119480412-44 N-HEXANE		inhalation: ATE = 176 mg/l 4h (vapours) oral: ATE = 25000 mg/kg BW

SECTION 7 : HANDLING AND STORAGE

Storage

Store upright.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

- Hand protection

~~- Impervious gloves in accordance with standard EN ISO 374-2~~

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

General information :

~~Spray.~~

~~Color :~~ ~~Colourless, clear~~

Important health, safety and environmental information

~~Flash point :~~ ~~Not applicable~~

Colour

Colourless, clear

Odour

Odour threshold : Not stated.

Freezing point

Freezing point / Freezing range : Not stated.

Boiling point or initial boiling point and boiling range

Boiling point/boiling range : Not relevant.

Flammability

Flammability (solid, gas) : Not stated.

Lower and upper explosion limit

Explosive properties, lower explosivity limit (%) : Not stated.

Explosive properties, upper explosivity limit (%) : Not stated.

Auto-ignition temperature

Self-ignition temperature : Not relevant.

Decomposition temperature

Decomposition point/decomposition range : Not relevant.

pH

pH (aqueous solution) : Not stated.

Kinematic viscosity

Viscosity : Not stated.

Solubility

Fat solubility : Not stated.

Partition coefficient n-octanol/water (log value)

Partition coefficient: n-octanol/water : Not stated.

Relative vapour density

Vapour density : Not stated.

9.2.1. Information with regard to physical hazard classes

No data available.

9.2.2. Other safety characteristics

No data available.

SECTION 11 : TOXICOLOGICAL INFORMATION

Skin corrosion/skin irritation :

Carbon Dioxide : Not classified as irritating to the skin.

Serious damage to eyes/eye irritation :

Carbon Dioxide : Not classified as irritating to the eyes.

Respiratory or skin sensitisation :

Carbon Dioxide : Not classified as sensitizing for skin or inhalation.

Germ cell mutagenicity :

Carbon Dioxide : Not classified for mutagenic.

Carcinogenicity :

Carbon Dioxide : Not classified for carcinogenicity.

Reproductive toxicant :

Carbon Dioxide : Not classified for reproductive toxicity.

Specific target organ systemic toxicity - single exposure :

Carbon Dioxide : Not classified for subchronic toxicity.

Specific target organ systemic toxicity - repeated exposure :

Carbon Dioxide : On continuous / repeated exposure / contact : Change in the haemogramme/blood composition. Low arterial pressure.

SECTION 12 : ECOLOGICAL INFORMATION

12.3. Bioaccumulative potential

Carbon dioxide : Not bioaccumulable.

12.4. Mobility in soil

Carbon dioxide : No data available.

12.5. Results of PBT and vPvB assessment

Carbon Dioxide : The criteria of PBT and vPvB do not apply to inorganic substances.

12.6. Endocrine disrupting properties

No data available.

SECTION 14 : TRANSPORT INFORMATION

~~Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2019 - IMDG 2018 - ICAO/IATA 2020).~~

IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowage	Handling	Segregation
	~~2~~	~~See SP63~~	~~-~~	~~See SP277~~	~~F-D, S-U~~	~~63 190 277 327 344 381 959~~	~~E0~~	~~- SW1 SW22~~	~~SG69~~	

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2021 - IMDG 2020 - ICAO/IATA 2021).

	2	See SP63	-	See SP277	F-D. S-U	63 190 277 327 344 381 959	E0	- SW1 SW22	SG69

SECTION 15: Regulatory information

~~SECTION 15 : REGULATORY INFORMATION~~

- Classification and labelling information included in section 2:

~~- EU Regulation No. 1272/2008 amended by EU Regulation No. 2020/217 (ATP 14)~~

- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/643 (ATP 16)
- EU Regulation No. 1272/2008 amended by EU Regulation No. 2021/849 (ATP 17)

SECTION 16 : OTHER INFORMATION

Abbreviations :

LD50 : The dose of a test substance resulting in 50% lethality in a given time period.

LC50 : The concentration of a test substance resulting in 50% lethality in a given period.

EC50 : The effective concentration of substance that causes 50% of the maximum response.

ECr50 : The effective concentration of substance that causes 50% reduction in growth rate.

NOEC : The concentration with no observed effect.

REACH : Registration, Evaluation, Authorization and Restriction of Chemical Substances.
ATE : Acute Toxicity Estimate
BW : Body Weight