

**BRAKE CLEANER SPRAY****SECTION 1: SUBSTANCE/MIXTURE IDENTIFICATION AND MANUFACTURER/SUPPLIER IDENTIFICATION****1.1. Product identification****BRAKE CLEANER SPRAY****UFI: YQN0-X09H-V00M-7G62**

Naphtha (petroleum), hydrotreated light &lt;0.1% EC 200-753-7

CAS: 64742-49-0

EC: 265-151-9

Index no: 649-328-00-1

REACH: 01-2119475133-43-XXXX

**Other identification methods:** No data.**1.2. Relevant identified uses of the substance or mixture and uses advised against****Recommended uses:** For removing greasy stains, tar, asphalt, chassis maintenance agents, dirt and dissolving synthetic resins.**Uses advised against:** Other than those mentioned above and in section 7.3.**1.3. Data of the safety data sheet supplier****Przedsiębiorstwo RANAL Sp. z o.o.****ul. Łódzka 3****42-240 Rudniki k. Częstochowy, PL**

Person responsible for the safety data sheet: ranal@ranal.pl

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**SECTION 2: HAZARDS IDENTIFICATION****2.1. Classification of the substance or mixture**

Classification according to The EC Regulation 1272/2008 of 16 December 2008 on classification, labelling and packaging (CLP).

Aerosol 1: Flammable aerosols, hazard category 1, H229.

Aerosol 1: Flammable aerosols, hazard category 1, H222.

Aquatic Chronic 2: Hazardous to the aquatic environment, chronic toxicity, category 2, H411.

Repr. 2: Reproduction toxicity, hazard category 2, H361.

Skin Irrit. 2: Skin corrosion/irritation, hazard category 2, H315.

STOT SE 3: Specific Target Organ Toxicity - single exposure, hazard category 3, narcotic effect, H336.

**2.2. Label elements**

EC Regulation 1272/2008(CLP):

Pictograms:

Signal word: **DANGER.**

Hazard statement:

H229 Container under pressure: may explode if heated.

H222 Extremely flammable aerosol.

H411 Toxic to aquatic life with long-lasting effects.

H361 Suspected of damaging fertility or the unborn child.

H315 Causes skin irritation.

H336 May cause drowsiness or dizziness.

Precautionary statements:

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

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 Pressurized container – Do not pierce or burn, even after use.

P280 Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F

P501 Dispose of the contents / container to the waste segregation container present in your municipality.

Substances relevant for classification:

Naphtha (petroleum), hydrotreated light &lt;0.1% EC 200-753-7 (CAS: 64742-49-0)

**2.3. Other hazards**

The product does not meet the criteria of PBT/vPvB.

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1. Substances**

Chemical description: A complex mixture of hydrocarbons.

Components:

(according to Annex II to Regulation (EC) No. 1907/2006 (point 3), the product contains)

Identification	Chemical name/classification	Concentration
CAS: 64742-49-0 EC: 265-151-9 Index no: 649-328-00-1 REACH: 01-2119475133-43-XXXX	<b>Naphtha (petroleum), hydrotreated light, &lt; 0.1 %</b> <b>EC 200-753-7</b> Regulation 1272/2008 Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 2: H225; Repr. 2: H361; Skin Irrit. 2: H315; STOT SE 3: H336- Danger	50 -< 70%
CAS: 64-17-5 EC: 200-578-6 Index no: 603-002-00-5 REACH: 01-2119457610-43-XXXX	<b>Ethanol<sup>(2)</sup></b> Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225- Danger	15 -< 22.5%
CAS: 124-38-9 EC: 204-696-9 Index no: Not applicable. REACH: Not applicable.	<b>Carbon dioxide<sup>(3)</sup></b> Regulation 1272/2008 Press. Gas: H280 - Warning	9 -< 11%
CAS: 68476-85-7 EC: 270-704-2 Index no: 649-202-00-6 REACH: 01-2119485911-31- XXXX	<b>Petroleum gases, liquefied<sup>(2)</sup></b> Regulation 1272/2008 Carc. 1B: H350; Flam. Gas 1A: H220; Muta. 1B: H340; Press. Gas: H280 - Danger	9 -< 11%
CAS: 78-93-3 EC: 201-159-0 Index no: 606-002-00-3 REACH: 01-2119457290-43- XXXX	<b>Butanone<sup>(3)</sup></b> Regulation 1272/2008 Eye Irrit. 2: H319; Flam. Liq. 2: H225; STOT SE 3: H336; EUH066- Danger	0.05 -< 0.07%

<sup>(1)</sup> Main component

<sup>(1)</sup> The substance poses a risk to health or the environment, meets the criteria set out in Commission Regulation (EU) 2015/830

<sup>(2)</sup> Substance with the EU workplace exposure limit

For more information on the hazards caused by the substances see sections 11, 12 and 16.

Other information:

Identification	Specific concentration limit
Ethanol CAS: 64-17-5 EC: 200-578-6	% (m/m) >=50: Eye Irrit. 2- H319

**3.2. Mixtures**

Not applicable.

**SECTION 4: FIRST AID MEASURES**

**4.1. Description of first aid measures**

Symptoms of poisoning may only occur after exposure, therefore, in case of doubt, direct exposure to a chemical product or prolonged malaise, consult a doctor and show him this Material Safety Data Sheet.

Airways:

Remove the injured person from the area of exposure, provide access to fresh air and rest. In severe cases, i.e. cardiovascular and respiratory arrest, apply artificial respiration (mouth-to-mouth method, heart massage, oxygen supply, etc.) and immediately seek medical attention.

Skin:

Take off contaminated clothes and shoes, clean the skin or wash the injured person with natural soap, rinsing thoroughly with cold water. In case of serious disturbances consult a doctor. If the mixture caused burns or frostbite, do not remove clothes from the victim, because if the clothes are stuck to the skin, it may cause even more damage. If blisters appear on the skin, do not pierce them as this may increase the risk of infection.

Eyes:

Rinse the eyes thoroughly with water at room temperature for 15 minutes. If the injured person wears contact lenses, they should be removed, unless they are stuck to the eye, otherwise it may cause further injuries. In all cases, after washing the injured, consult a doctor as soon as possible and show him this Material Safety Data Sheet.

Alimentary tract:

Do not induce vomiting, and if this occurs, keep the head tilted forward to prevent aspiration of stomach contents. Provide the injured person with rest. Rinse mouth and throat with water as they have probably been contaminated when swallowed.

**4.2. Most important symptoms both acute and delayed**

Acute and delayed symptoms of exposure are described in sections 2 and 11 of the MSDS.

**4.3. Indications of any immediate medical attention and special treatment needed**

No data.

**BRAKE CLEANER SPRAY****SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media**

Suitable extinguishing agents: Use dry powder extinguishers (ABC powder), alternatively use foam or carbon dioxide (CO<sub>2</sub>) extinguishers. Unsuitable extinguishing agents: IT IS NOT RECOMMENDED to use running water as an extinguishing agent.

**5.2. Special hazards arising from the substance or mixture**

Combustion or thermal decomposition form reaction sub-products which can be highly toxic and in consequence may pose a serious health risk.

**5.3. Advice for fire fighters**

Depending on the extent of the fire, it may be necessary to use complete protective clothing and autonomous breathing equipment. A minimum supply of emergency devices and measures (fire blankets, first aid kit) in accordance with Directive 89/654 / EC should be available.

Additional provisions:

Act in accordance with the Internal Emergency Plan and information leaflets describing what to do in the event of accidents and other emergencies. Disable all ignition sources In the event of fire, cool the containers and tanks for storing products vulnerable to ignition, explosion or BLEVE explosion due to high temperatures. Do not allow products used to extinguish a fire to enter the water tank.

**SECTION 6: ACCIDENTAL RELEASE MEASURES****6.1. Personal precautions, protective equipment and emergency measures**

For personnel non taking part in emergency procedures:

Secure the release of the product, if this activity does not pose a threat to the people who carry it out. Evacuate from the place all the people who do not have adequate protection measures. In the event of possible contact with the spilled product, it is obligatory to use personal protective equipment (see section 8). First of all, the formation of flammable air-vapour mixtures must be prevented, both through ventilation and the use of an inerting agent. Disable all ignition sources Eliminate static electricity by ensuring earthing and bonding all the surfaces that can develop static electricity.

For personnel taking part in emergency procedures:

See section 8.

**6.2. Environmental precautions**

The product is classified as hazardous to the environment. Do not allow contamination of groundwater, surface water, watercourses, soil and sewage system. The absorbed product should be stored in tightly closed containers. Notify relevant authorities in the event of exposure of the general public or the environment.

**6.3. Methods and materials for containment and cleaning up**

It is recommended to:

Absorb the spilled product with sand or neutral absorbent and transport it to a safe place. Do not use sawdust or other flammable materials to absorb the product. For any product disposal considerations, see section 13.

**6.4. Reference to other sections**

Information on appropriate personal protection equipment is provided in section 8 of the MSDS.

Information on additional waste treatment is provided in section 13 of the MSDS.

**SECTION 7: HANDLING AND STORAGE OF SUBSTANCES AND MIXTURES****7.1. Precautions for safe handling**

A. Precautions necessary for safe handling of the product:

Comply with the applicable law regarding the prevention of risks in the workplace. Keep containers tightly closed. Control spills and wastes by using safe disposal methods (section 6). Avoid spontaneous release from containers. Keep order and cleanliness when handling hazardous products.

B. Technical recommendations for the prevention of fires and explosions:

Avoid evaporation of the product, as it contains flammable substances, the vapours of which can form easily ignitable mixtures with air in the presence of ignition sources. Control the sources of ignition (cell phones, sparks) and pour the product slowly so as not to lead to the formation of electrostatic charges. Information on conditions and substances to be avoided is provided in section 10.

C. Technical recommendations to prevent toxicological risks:

**PREGNANT WOMEN SHOULD NOT BE EXPOSED TO THIS PRODUCT.** Transfer in places that comply with safety requirements (emergency showers and eye washers nearby) using personal protective equipment, especially face and hands protection (see section 8). Transfer manually only small amounts of the product. Do not eat or drink when handling the product and wash your hands with an appropriate cleaning agent after completing the procedure.

D. Technical recommendations to prevent environmental risks:

Due to the risk that this product poses to the environment, it is recommended to handle it in a place which has sensors to control contamination in the event of a spill, and to store absorbent material nearby.

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**7.2. Conditions for safe storage, including any incompatibilities**

A. Technical aspects of storage:

Min. temp.: 5°C

Max. temp.: 30°C

Maximum time: 12 months

B. General conditions of storage:

Avoid sources of heat, radiation and electrostatics. Keep away from food. For more information see section 10.5.

**7.3. Special end use(s)**

Apart from the indications already mentioned, it is not necessary to follow any specific recommendations concerning the application of the product.

**SECTION 8: EXPOSURE CONTROL/PERSONAL PROTECTION MEASURES**

**8.1. Control parameters**

Occupational exposure limit values should be controlled for the following substances:

Identification	Limit values of environmental quality standards	
Naphtha (petroleum), hydrotreated light, < 0,1 % EC 200-753-7 CAS: 64742-49-0 EC: 265-151-9	NDS 500 mg/m <sup>3</sup>	NDS 1500 mg/m <sup>3</sup>
Ethanol CAS: 64-17-5 EC: 200-578-6	NDS 1900 mg/m <sup>3</sup>	
Carbon dioxide CAS: 124-38-9 EC: 204-696-9	NDS 9000 mg/m <sup>3</sup>	NDS 27000 mg/m <sup>3</sup>
Butanone CAS: 78-93-3 EC: 201-159-0	NDS 450 mg/m <sup>3</sup>	NDS 900 mg/m <sup>3</sup>

**DNEL (Workers):**

Identification		Short-time exposure		Long-time exposure	
		Systemic	Local	Systemic	Local
Naphtha (petroleum), hydrotreated light <0.1% EC 200-753-7 CAS: 64742-49-0 EC: 265-151-9	Oral	No data	No data	No data	No data
	Skin	No data	No data	300 mg/kg	No data
	Inhalation	No data	No data	2085 mg/m <sup>3</sup>	No data
Ethanol CAS: 64-17-5 EC: 200-578-6	Oral	No data	No data	No data	No data
	Skin	No data	No data	343 mg/kg	No data
	Inhalation	No data	No data	950 mg/m <sup>3</sup>	No data
Petroleum gases, liquefied CAS: 68476-85-7 EC: 270-704-2	Oral	No data	No data	No data	No data
	Skin	No data	No data	23.4 mg/kg	No data
	Inhalation	No data	No data	No data	No data
Butanone CAS: 78-93-3 EC: 201-159-0	Oral	No data	No data	No data	No data
	Skin	No data	No data	1161 mg/kg	No data
	Inhalation	No data	No data	600 mg/m <sup>3</sup>	No data

**DNEL (Population):**

Identification		Short-time exposure		Long-time exposure	
		Systemic	Local	Systemic	Local
Naphtha (petroleum), hydrotreated light <0.1% EC 200-753-7 CAS: 64742-49-0 EC: 265-151-9	Oral	No data	No data	149 mg/kg	No data
	Skin	No data	No data	149 mg/kg	No data
	Inhalation	No data	No data	447 mg/m <sup>3</sup>	No data
Ethanol CAS: 64-17-5 EC: 200-578-6	Oral	No data	No data	87 mg/kg	No data
	Skin	No data	No data	206 mg/kg	No data
	Inhalation	No data	No data	114 mg/m <sup>3</sup>	No data
Butanone CAS: 78-93-3 EC: 201-159-0	Oral	No data	No data	31 mg/kg	No data
	Skin	No data	No data	412 mg/kg	No data
	Inhalation	No data	No data	106 mg/m <sup>3</sup>	No data

**PNEC:**

Identification	Sewage treatment plant		Fresh water	
Ethanol CAS: 64-17-5 EC: 200-578-6	Soil	0.63 mg/kg	Sea water	0.79 mg/L
	Intermittent	2.75 mg/L	Sediment (fresh water)	3.6 mg/kg
	Oral	0.38 g/kg	Sediment (sea water)	2.9 mg/kg
	Soil	709 mg/L	Fresh water	55.8 mg/L
Butanone CAS: 78-93-3 EC: 201-159-0	Soil	22.5 mg/kg	Sea water	55.8 mg/L
	Intermittent	55.8 mg/L	Sediment (fresh water)	284.74 mg/kg
	Oral	1 g/kg	Sediment (sea water)	284.74 mg/kg
	Soil	709 mg/L	Fresh water	55.8 mg/L

**8.2. Exposure control**

A. Personal protective measures:



As a preventive measure, it is recommended to use protective clothing marked with the "CE marking". More information on protective clothing (storage, use, cleaning, maintenance, protection class ...) can be found in the information leaflet provided by the manufacturer of the protective clothing. The directions here are given for the pure product. The instructions for the diluted product may vary according to

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the dilution ratio, type of use, method of application, etc. When determining the obligation to install emergency showers and / or eyewash devices in the storeroom, the regulations regarding the storage of chemical products will be taken into account. For more information see sections 7.1 and 7.2.

Due to the lack of information on protective equipment held by the company, all the information contained in this section should be treated as a recommendation given to avoid hazard while working with the product.



**B. Respiratory protection:**

Pictogram:	Protective Equipment	Labelling	CEN standards	Note:
 Obligatory respiratory protection	Protective filter mask against gases and vapours.		EN 149:2001+A1:2009 EN 405:2002+A1:2010 EN ISO 136:1998	Replace if you notice increasing difficulty in breathing and smell or taste the contaminant.





**C. Special hands protection:**

Pictogram	Protective equipment	Labelling	CEN standards	Note:
 Obligatory hands protection	Reusable gloves protecting against chemical agents.		EN ISO 374-1:2016+A1:2018 EN 16523-1:2015+A1:2018 EN 420:2004+A1:2010	The Breakthrough Time stated by the manufacturer must be longer than the product application time. Do not use protective creams after skin contact with the product.



**D. Eye and face protection:**

Pictogram	Protective equipment	Labelling	CEN standards	Note:
 Obligatory face protection	Face shield.		EN 166:2002 EN 167:2002 EN 168:2002 EN ISO 4007:2018	Clean every day and disinfect regularly according to the manufacturer's instructions.

**E. Body protection:**

Pictogram	Protective equipment	Labelling	CEN standards	Note:
 Obligatory body protection	Clothing protecting against chemical hazards, anti-electrostatic and flame-retardant.		EN 1149-1,2,3 EN 13034:2005+A1:2009 EN ISO 13982-1:2004/A1:2010 EN ISO 6529:2013 EN ISO 6530:2005 EN ISO 13688:2013 EN 464:1994	Only for professional use. Clean every day according to the manufacturer's instructions.
 Obligatory feet protection	Safety footwear to protect against chemical hazards, with antistatic properties and resistant to high temperatures.		EN ISO 13287:2013 EN ISO 20345:2011 EN 13832-1:2019	In case of any signs of damage replace footwear.

**F. Additional emergency measures:**

Emergency measures	Standards	Emergency measures	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eye rinse device	DIN 12,899 ISO 3864-1:2011, ISO 3864-4:2011

**Environmental control:**

Pursuant to the Community law on environmental protection, it is recommended to prevent the product and its packaging from getting into the environment.

For more information see section 7.1.

**Volatile Organic Compounds:**

According to the requirements of the applicable law, this product has the following properties:

VOC (content): 78.46 % mass  
 VOC concentration 20°C: No data  
 Average number of carbons: 5.57  
 Average molecular weight: 84.58 g/mol

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1. Information on basic physical and chemical properties**

General information:

Physical aspect:

Physical state 20°C:

aerosol

Appearance:

volatile

Colour:

clear

Odour:

solvent

Odour threshold:

no data\*

Volatility:

Boiling point at atmospheric pressure:

no data\*

Vapour pressure at 20°C:

no data\*

Vapour pressure at 50°C:

< 300000 Pa (300 kPa)

Evaporation rate:

no data\*

Product characteristics:

Density 20°C:

no data\*

Relative density 20°C:

no data\*

Dynamic viscosity 20°C:

no data\*

Kinematic viscosity 20°C:

no data\*

Kinematic viscosity 40°C:

no data\*

Concentration

no data\*

pH:

no data\*

Vapour density 20°C:

no data\*

n-octanol/water partition coefficient 20°C:

no data\*

Solubility in water 20°C:

no data\*

Degree of solubility:

no data\*

Breakdown point:

no data\*

Melting /freezing point:

no data\*

Pressure in container:

no data\*

Flammability:

Flash point:

not applicable

Flammability (solid, gas):

no data\*

Auto ignition point:

no data\*

Bottom flammability limit:

no data\*

Top flammability limit:

no data\*

\*There is no information about hazards caused by the product.

Particles characteristics:

Median of diameter equivalent:

not applicable

**9.2. Other information**

Information on the physical hazard classes:

Explosive properties:

no data\*

Oxidizing properties:

no data\*

Substances corrosive to metals:

no data\*

Heat of combustion:

no data\*

Aerosols - total percentage (by mass)

of flammable components:

no data\*

Other safety features:

Surface tension 20°C:

no data\*

Refraction index:

no data\*

\*There is no information about hazards caused by the product.

**SECTION 10: STABILITY AND REACTIVITY**

**10.1. Reactivity**

The product is not reactive in conditions of storage. See section 7.

**10.2. Chemical stability**

The product is chemically stable conditions of storage and use.

**10.3. Possibility of hazardous reactions**

There are no hazardous reactions if the product is stored as recommended.

**10.4. Conditions to be avoided**

Use an store at room temperature.

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Shocks and friction:	not applicable
Contact with air:	not applicable
Heating:	risk of ignition
Sunlight:	avoid direct contact
Humidity:	not applicable

**10.5. Incompatible materials**

Acids:	avoid strong acids
Water:	not applicable
Oxidants:	avoid direct contact
Flammable materials:	not applicable
Other:	avoid strong bases

**10.6. Hazardous decomposition products**

For the details on decomposition products see sections 10.3, 10.4 and 10.5. Depending on the conditions of decomposition, the process may release complex mixtures of chemical substances: carbon dioxide (CO<sub>2</sub>), carbon monoxide and other organic compounds.

For more information see section 5.

**SEKCJA 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects**

There are no experimental data on the ecotoxicological properties of the product.

**Health hazard:**

In case of prolonged exposure or at concentrations higher than the established occupational exposure limits, side effects on health may occur depending on the route of exposure:

**A. Ingestion (acute effects):**

- Acute toxicity: Based on available data, the classification criteria are not met. The product does not contain substances classified as hazardous. For more information see section 3.
- Caustic/Irritating: Swallowing a significant dose of the product may cause throat irritation, abdominal pain, dizziness and vomiting.

**B. Inhalation (acute effects):**

- Acute toxicity: Based on available data, the classification criteria are not met. The product does not contain substances classified as hazardous. For more information see section 3.
- Caustic/Irritating: Based on available data, the classification criteria are not met. The product does not contain substances classified as hazardous. For more information see section 3.

**C. Contact with skin and eyes (acute effects):**

- Contact with skin: In case of contact it causes dermatitis.
- Contact with eyes: Based on available data, the classification criteria are not met, but the product contains substances classified as hazardous. For more information see section 3.

**D. CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):**

**Carcinogenicity:** Based on available data, the classification criteria are not met, but the product contains substances classified as hazardous due to carcinogenic effects. For more information see section 3.

**IARC:** Naphtha (petroleum), hydrotreated light <0.1% EC 200-753- 7(3); propan-2-ol (3); Ethanol (1)

- May cause genetic effects: Based on available data, the classification criteria are not met, but the product contains substances classified as hazardous due to mutagenic effects. For more information see section 3.
- May cause harmful effect to reproduction: Suspected of having harmful effect on reproduction or damaging the unborn child.

**E. Sensitizing effects:**

- Respiratory: Based on available data, the classification criteria are not met. The product does not contain substances classified as hazardous due to their sensitizing effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met. The product does not contain substances classified as hazardous. For more information see section 3.

**F. Specific target Organ Toxicity (STOT) time of exposure:**

Exposure to high doses may adversely affect the nervous system, causing headache, nausea, dizziness, vomiting, lack of mental clarity and, in severe cases, loss of consciousness.

**G. Specific target Organ Toxicity (STOT), repeated exposure:**

- Specific target Organ Toxicity (STOT) repeated exposure: Based on available data, the classification criteria are not met. The product does not contain substances classified as hazardous. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, but the product contains substances classified as hazardous in case of repeated exposure. For more information see section 3.

**H. Aspiration hazard:**

Based on available data, the classification criteria are not met, but the product contains substances classified as hazardous. For more information see section 3.

**Other information:**

No data.



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Detailed toxicological information on substances:

Identification	Acute toxicity		Type
Ethanol CAS: 64-17-5 EC: 200-578-6	LD50 oral	6200 mg/kg	Rat
	LD50 dermal	20000 mg/kg	Rabbit
	LC50 inhalation	124.7 mg/L(4)	Rat
Butanone CAS: 78-93-3 EC: 201-159-0	LD50 oral	4000 mg/kg	Rat
	LD50 dermal	6400 mg/kg	Rabbit
	LC50 inhalation	23.5 mg/L(4)	Rat

**SECTION 12: ECOLOGICAL INFORMATION**

There are no experimental data on the ecotoxicological properties of the mixture itself.

**12.1. Toxicity**

Acute toxicity:

Identification	Concentration	Type	Type
Naphtha (petroleum), hydrotreated light <0.1% EC 200-753-7 CAS: 64742-49-0 EC: 265-151-9	LC50 > 1 - 10 (96 h)		Fish
	EC50 > 1 - 10 (48 h)		Crustacea
	EC50 > 1 - 10 (72 h)		Alga
Ethanol CAS: 64-17-5 EC: 200-578-6	LC50 11000 mg/L(96)	Alburnus alburnus	Fish
	EC50 9268 mg/L (48 h)	Daphnia magna	Crustacea
	EC50 1450 mg/L (192 h)	Microcystis aeruginosa	Alga
Butanone CAS: 78-93-3 EC: 201-159-0	LC50 3220 mg/L(96)	Pimephales promelas	Fish
	EC50 5091 mg/L (48 h)	Daphnia magna	Crustacea
	EC50 4300 mg/L (168 h)	Scenedesmus subspicatus	Alga

Chronic toxicity:

Identification	Concentration	Type	Type
Ethanol CAS: 64-17-5 EC: 200-578-6	NOEC 250 mg/L	Danio rerio	Fish
	NOEC 2 mg/L	Ceriodaphnia dubia	Crustacea

**12.2. Persistence and degradability**

Identification	Degradability	Biodegradability:	
Ethanol CAS: 64-17-5 EC: 200-578-6	BZT5 No data	Concentration	100 mg/L
	COD No data	Period	14 days
	BOD/COD No data	% biodegradable	89%.
Butanone CAS: 78-93-3 EC: 201-159-0	BZT5 2,03 g O2/g	Concentration	No data
	COD 2,31 g O2/g	Period	20 days
	BOD/COD 0.88	% biodegradable	89%.

**12.3. Bioaccumulative potential**

Identification	Bioaccumulative potential	
Ethanol CAS: 64-17-5 EC: 200-578-6	BCF	3
	Log POW	-0.31
	Potential	Low
Butanone CAS: 78-93-3 EC: 201-159-0	BCF	3
	Log POW	0.29
	Potential	Low

**12.4. Mobility in soil**

Identification	Absorption/desorption		Variability	
Ethanol CAS: 64-17-5 EC: 200-578-6	Koc	1	Henry's constant	4,61E-1 Pa·m <sup>3</sup> /mol
	Conclusions	Very high	Of dry soil	Yes.
	Surface tension	2,339E-2 N/m (25 °C)	Of wet soil	Yes.
Carbon dioxide. CAS: 24-38-9 EC: 04-696-	Koc	No data	Henry's constant	No data
	Conclusions	No data	Of dry soil	No data
	Surface tension	5,7E-4 N/m (25 °C)	Of wet soil	No data
Butanone CAS: 78-93-3 EC: 201-159-0	Koc	30	Henry's constant	5,77 Pa·m <sup>3</sup> /mol
	Conclusions	Very high	Of dry soil	Yes.
	Surface tension	2,396E-2 N/m (25 °C)	Of wet soil	Yes.

**12.5. Results of PBT and vPvB assessment**

The product does not meet the criteria of PBT/vPvB.

**12.6. Other hazardous effects**

No data.

**SECTION 13: DISPOSAL CONSIDERATIONS**

**13.1. Waste treatment methods**

Code: 16 05 04\*

Description: gases in pressure containers (including halons) containing dangerous substances.

Waste type (Commission Regulation (EU) no 1357/2014: Dangerous.



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Waste type (Commission Regulation (EU) no 1357/2014):

HP14 Ecotoxic, HP3 Flammable, HP5 Specific target organ toxicity (STOT) or aspiration hazard, HP7 Carcinogenic, HP10 Harmful to reproduction, HP11 Mutagenic, HP4 Irritating— causing skin irritation and eye damage.

Waste administration (disposal and assessment):

It should be handed over to a specialized disposal company authorized to assess and remove waste in accordance with Annex 1 and Annex 2 (Directive 2008/98 / EC of the European Parliament and of the Council).

According to the code 15 01 (2014/955 / EU), when the container is in direct contact with the product, it should be handled in the same way as the product. Otherwise, it should be treated as non-hazardous waste. It is not recommended to discharge it into water courses. See section 6.2

Waste administration provisions:

Pursuant to Annex II of Regulation (EC) No. 1907/2006 (REACH), Community or national provisions related to waste management have been adopted.

Community law:

Directive 2008/98/EC, 2014/955/EU, Commission Regulation (EU) no 1357/2014.

National Law:



Act of June 13, 2013 on the management of packaging and packaging waste (i.e. Journal of Laws of 2021, item 1114, as amended).

Act of December 14, 2012 on waste (i.e. Journal of Laws of 2022, item 699).

**SECTION 14: TRANSPORT INFORMATION**

**Road/railway transport (ADR 2021 and RID 2021):**



**14.1. UN number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated light <0.1% EC 200-753-7)  
**14.3. Transport hazard class:**  
 Class: 9  
 Warning label: 9

**14.4. Packaging group:** III  
**14.5. Environmental hazards:** yes  
**14.6. Special precautions for users:**  
 Special provisions: 274, 335, 375, 601  
 Tunnel restriction code: -  
 Physical and chemical properties: see section 9  
 Limited Quantity: 5 L  
**14.7. Transport in bulk according to Annex II of MARPOL 73/78 Convention and the IBC Code:**  
 No data.

**Sea transport (IMDG 39-18)**

**14.1. UN number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated light <0.1% EC 200-753-7)  
**14.3. Transport hazard class:**  
 Class: 9  
 Warning label: 9

**14.4. Packaging group:** III  
**14.5. Environmental hazards:** yes  
 Marine pollutant:  
**14.6. Special precautions for users:**  
 Special provisions: 335, 969, 274  
 EmS code: F-A, S-F  
 Physical and chemical properties: see section 9  
 Limited Quantity: 5 L  
 Segregation group: no data  
**14.7. Transport in bulk according to Annex II of MARPOL 73/78 Convention and the IBC Code:**  
 No data.

**Air transport (ICAO/ ICAO):**

**14.1. UN number:** UN3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS LIQUID, N.O.S. (Naphtha (petroleum), hydrotreated light <0.1% EC 200-753-7)  
**14.3. Transport hazard class:**  
 Warning label: 9

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III  
yes

**14.4. Packaging group:**

**14.5. Environmental hazards**

**14.6 Special precautions for users:**

Physical and chemical properties:

see section 9

**14.7. Transport in bulk according to Annex II of MARPOL 73/78 Convention and the IBC Code:**

No data.

**SECTION 15: REGULATORY INFORMATION**

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

Regulation (EC) No 528/2012:

Contains preservatives to protect the original properties of the treated products. Contains ethanol.

Substances candidate to authorization pursuant to EC Regulation 1907/2006 (REACH): No data.

Substances present in Annex XIV of REACH (authorization list) and expiry date: No data.

Regulation (EC) No 1005/2009 on substances depleting the ozone layer: No data.

Article 95, REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (EU) No 528/2012: ethanol (Group 1, 2, 4, 6); Carbon dioxide. (Group 15, 18).

REGULATION (EU) No 649/2012 concerning the export and import of dangerous chemicals: No data.

Seveso III:

Section	Description:	Requirements concerning lower tier establishments	Requirements concerning upper tier establishments
P3a	FLAMMABLE AEROSOLS	150	500
E2	ENVIRONMENTAL HAZARDS	200	500

Restrictions on the sale and use of certain hazardous substances and mixtures (Annex XVII of REACH, etc ...):

They cannot be used in:

- decorative products intended to produce light or colour effects by means of various phases, e.g. in decorative lamps and ashtrays,
- tricks and jokes,
- games intended for one or more participants or articles to be used as such, even for decorative purposes.

Specific provisions for the protection of people or the environment:

It is recommended to use the information collected in this safety data sheet as a preliminary data to assess the local risk in order to take the necessary steps to prevent the risks associated with the handling, use, storage and disposal of this product.

Other regulations:

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/ 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC as amended.
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 as amended.
- Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.
- Commission Directive 2006/15/EC of 7 February 2006 establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC.
- Commission Directive 2009/161/EU of 17 December 2009 establishing a third list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Commission Directive 2000/39/EC.
- Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors, amending Regulation (EC) No 1907/2006 and repealing Regulation (EU) No 98/2013.
- Government Statement of February 18, 2019 on the entry into force of amendments to Annexes A and B of the European Agreement on the International Carriage of Dangerous Goods by Road (ADR), drawn up in Geneva on September 30, 1957. (Journal of Laws of 2019, item 769).

**15.2. Chemical safety assessment**

Chemical safety assessment has not been performed.

**SECTION 16: OTHER INFORMATION**

Provisions regarding the Safety Data Sheets:

This safety data sheet was prepared in accordance with ANNEX II-Guide for persons drawing up Safety Data Sheets to Regulation (EC) No. 1907/2006 (Regulation (EU) No. 2015/830).

Texts of the regulation mentioned in section 2:

H315: Causes skin irritation.

H361: Suspected of having harmful effect on reproduction or damaging the unborn child.

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H336: May cause drowsiness or dizziness.  
H411: Toxic to aquatic life with long-lasting effects.  
H229: Container under pressure: may explode if heated.  
H222: Extremely flammable aerosol.

Texts of the regulation mentioned in section 3:

These phrases do not refer to the product itself, they are for informational purposes only and refer to individual components that appear in Section 3.

EC Regulation 1272/2008(CLP):

Aquatic Chronic 2: H411	Toxic to aquatic life with long-lasting effects.
Asp. Tox. 1: H304	May be fatal if swallowed and enters airways.
Carc. 1B: H350	May cause cancer.
Eye Irrit. 2: H319	Causes eye irritation.
Flam. Gas 1A: H220	Extremely flammable gas.
Flam. Liq. 2: H225	Highly flammable liquid and vapour.
Muta. 1B: H340-	May cause genetic effects.
Press. Gas: H280	Contains gas under pressure: may explode if heated.
Repr. 2: H361	Suspected of damaging fertility or the unborn child.
Skin Irrit. 2: H315	Causes skin irritation.
STOT SE 3: H336	May cause drowsiness or dizziness.

Advice on staff training:

It is recommended that personnel who will handle this product receive basic occupational safety training to facilitate understanding and interpretation of the safety data sheet and product label.

Main sources of literature:

<http://echa.europa.eu>

<http://eur-lex.europa.eu>

Abbreviations used in the text:

Supp. Class.:	Supplier Classification
ADR:	International Agreement concerning the International Carriage of Dangerous Goods by Road
IMDG:	International Maritime Code for Dangerous Goods
IATA:	International Air Transport Association
ICAO:	International Civil Aviation Organization
COD	Chemical oxygen demand (COD)
BOD:	Biochemical oxygen demand (BOD) within 5 days
BCF:	Bioconcentration factor
Log POW:	octanol/water partition coefficient
MPC:	Maximum permissible concentrations
MPIC:	Maximum Permissible Instantaneous Concentration
EC50:	effective concentration (the concentration of the component at which 50% of the organisms show an effect within a specified time)
LD50:	medial lethal dose
LC50:	medial lethal concentration
EC50:	medial effective concentration
PBT:	the potential of toxic substances to bioaccumulate
vPvB:	Very high potential of toxic substances to bioaccumulate
IWO:	personal protection measures
STP:	Sewage treatment plant
Henry's constant:	the solubility of a given component in solution as a function of the partial pressure of that component above the solution
EC:	EINECS and ELINCS number (see also EINECS and ELINCS)
EINECS:	European Inventory of Existing Commercial Chemical Substances
ELINCS:	European Inventory of Notified Chemical Substances
STOT:	Specific target organ toxicity
Koc:	the partition coefficient normalized for the content of organic carbon, it determines the degree of absorption of organic substances in the soil
DNEL:	Derived no effect level of exposure
PNEC:	Predicted no-effect concentration
BDO:	registration number from the Waste Database
UFI:	unique formulation identifier
IARC:	International Agency for Research on Cancer

Changes in the Sheet compared to the previous version:

Not applicable.

The information contained in this Safety Data Sheet is based on sources and technical knowledge and applicable law at European and national level, and its accuracy cannot be fully guaranteed. This information cannot be treated as a guarantee of the properties of the product, as it is only about the description of safety requirements. The working methods and conditions of users of this product are beyond our knowledge and control, and it is the user's responsibility to take appropriate measures to comply with legal requirements regarding the handling, storage, use and disposal of chemical products. The information contained in this Material Safety Data Sheet relates only to the given product, which must not be used for purposes other than those specified therein.