

## SAFETY DATA SHEET

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

**1.1. Product identifier:**

**A.Z. Meisterteile brake cleaner**

**1.2. Relevant identified uses of the mixture and uses advised against:**

Maintenance product. For industrial, consumer and professional use.

Uses advised against: Uses other than the recommended uses.

**1.3. Details of the supplier of the safety data sheet:**

Information about the trader:

**Unix Autó Kft.**

1139 Budapest, Frangepán utca 55-57.

Tel.: 00 36 1 270 8700

E-mail: info@unixauto.hu

**1.3.1. Responsible person:**

Unix Autó Kft.

E-mail:

info@unixauto.hu

**1.4. Emergency telephone number:**

Emergency telephone (07-15:20 h): +36 34 526 210 (CET) on workdays

Health Toxicological Information Service (ETTSZ 1097 Budapest, Albert Flórián út 2-6.)

Tel.: 36 80 201 199 (0-24 h, free number).

### SECTION 2: HAZARDS IDENTIFICATION

**2.1. Classification of the mixture:**

Classification according to Regulation (EC) No 1272/2008 (CLP):

Aerosols, Hazard Category 1 – H222; H229

Aspiration hazard, Hazard Category 1 – H304

Serious eye damage/eye irritation, Hazard Category 2 – H319

Specific target organ toxicity – Single exposure, Hazard Category 3, Narcosis – H336

Hazardous to the aquatic environment – Chronic Hazard, Category 2 – H411

**Hazard statements:**

**H222** – Extremely flammable aerosol.

**H229** – Pressurised container: May burst if heated.

**H304** – May be fatal if swallowed and enters airways.

**H319** – Causes serious eye irritation.

**H336** – May cause drowsiness or dizziness.

**H411** – Toxic to aquatic life with long lasting effects.

**2.2. Label elements:**

Components that define the hazards: Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane; Acetone; Ethyl acetate

GHS02



GHS07



GHS09



DANGER

**Hazard statements:**

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

**EUH 066** – Repeated exposure may cause skin dryness or cracking.

**Precautionary statements:**

- 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** – Do not pierce or burn, even after use.  
**P261** – Avoid breathing spray.  
**P271** – Use only outdoors or in a well-ventilated area.  
**P273** – Avoid release to the environment.  
**P280** – Wear protective gloves/protective clothing/eye protection/face protection.  
**P303 + P361 + P353** – IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
**P304 + P340** – IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
**P305 + P351 + P338** – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**P410 + P412** – Protect from sunlight. Do not expose to temperatures exceeding 50 °C.  
**P501** – Dispose of contents/container as hazardous waste, in accordance with local/national/international regulations.

Contents according to **Regulation (EC) No 648/2004** on detergents:  
 > 30 % aliphatic hydrocarbons

**2.3. Other hazards:**

Product vapours are heavier than air and may spread along the floor. Vapours may form explosive gas/air mixtures.  
 Take measures to prevent electrostatic charges.  
 Do not let the product into the environment.  
 The product does not contain PBT or vPvB substances.  
 Endocrine disrupting property: Based on available data, it does not contain endocrine disruptors.

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

**3.1. Substances:**

Not applicable.

**3.2. Mixtures:**

| Description  | CAS number | EC number / ECHA list number | REACH registration number | Conc. (%) | Classification according to Regulation (EC) No 1272/2008 (CLP) |  |  |
|--|------------|------------------------------|---------------------------|-----------|--|--|--|
|  |            |                              |                           |           | Pictogram, signal word code(s)                                 | Hazard class and category code(s)                                | Hazard statement code(s)               |
| <b>Hydrocarbons, C6-C7, isoalkanes, cyclics, &lt;5% n-hexane*</b><br>benzene content <0.1% | 64742-89-8 | 926-605-8                    | 01-2119486291-36-0003     | ca. 37.8  | GHS02<br>GHS08<br>GHS07<br>GHS09<br>Danger                     | Flam. Liq. 2<br>Asp. Tox. 1<br>STOT SE 3<br>Aquatic<br>Chronic 2 | H225<br>H304<br>H336<br>H411<br>EUH066 |
| <b>Acetone**</b><br>Index number:<br>606-001-00-8  | 67-64-1    | 200-662-2                    | 01-2119471330-49-XXXX     | ca. 10.2  | GHS02<br>GHS07<br>Danger                                       | Flam. Liq. 2<br>Eye Irrit. 2<br>STOT SE 3                        | H225<br>H319<br>H336<br>EUH066         |
| <b>Propan-2-ol**</b><br>Index number:<br>603-117-00-0                                      | 67-63-0    | 200-661-7                    | 01-2119457558-25-25       | ca. 9     | GHS02<br>GHS07<br>Danger                                       | Flam. Liq. 2<br>Eye Irrit. 2<br>STOT SE 3                        | H225<br>H319<br>H336                   |
| <b>Ethyl acetate**</b><br>Index number:  | 141-78-6   | 205-500-4                    | 01-219475103-46-XXXX      | ca. 3     | GHS02<br>GHS07   | Flam. Liq. 2<br>Eye Irrit. 2                                     | H225<br>H319                           |

|  |          |           |                       |                        |                          |                           |                |
|--|----------|-----------|-----------------------|------------------------|--------------------------|---------------------------|----------------|
| 607-022-00-5   |          |           |                       |                        | Danger                   | STOT SE 3                 | H336<br>EUH066 |
| <b>Butane**</b><br>Index number:<br>601-004-00-0<br>1,3-butadiene <0.1%  | 106-97-8 | 203-448-7 | 01-2119474691-32      | ca. 40<br>(propellant) | GHS02<br>GHS04<br>Danger | Flam. Gas 1<br>Press. Gas | H220<br>H280   |
| <b>Isobutane</b><br>Index number:<br>601-004-00-0<br>1,3-butadiene <0.1% | 75-28-5  | 200-857-2 | 01-2119485395-27-0019 |                        | GHS02<br>GHS04<br>Danger | Flam. Gas 1<br>Press. Gas | H220<br>H280   |
| <b>Propane</b><br>Index number:<br>601-003-00-5                          | 74-98-6  | 200-827-9 | 01-2119486944-21      |                        | GHS02<br>GHS04<br>Danger | Flam. Gas 1<br>Press. Gas | H220<br>H280   |

\*: Classification specified by the manufacturer; the substance is not listed in Annex VI of the Regulation (EC) No 1272/2008.

\*\* : Substance having occupational exposure limit value.

For the full text of hazard statements, see Section 16.

## SECTION 4: FIRST AID MEASURES

### 4.1. **Description of first aid measures:**

**General information:** Provide fresh air. Consult a physician in case of symptoms, complaints or if in doubt. In case of unwellness, obtain medical attention. Do not give anything orally to an unconscious person.

#### **INGESTION:**

Measures:

- Not a likely route of exposure (aerosol product).
- If aerosol gets accidentally in the mouth or is ingested, it is prohibited to induce vomiting.
- Obtain medical attention immediately.

#### **INHALATION:**

Measures:

- Take the victim into fresh air and provide rest.
- In case of respiratory irritation (coughing) or breathing difficulties, immediately call for a physician.

#### **SKIN CONTACT:**

Measures:

- Remove the contaminated, impregnated clothes and shoes immediately.
- Wash affected skin surface with lukewarm water and soap.
- Obtain medical attention if complaints occur.

#### **EYE CONTACT:**

Measures:

- Rinse eye thoroughly with plenty of running water, and continue to rinse for at least 15 minutes (keep eyelids apart).
- Obtain medical attention if irritation occurs.

### 4.2. **Most important symptoms and effects, both acute and delayed:**

**Ingestion:** In case of accidental ingestion, causes irritation in the gastrointestinal tract. Liquid drops in the lungs may cause lung oedema and pneumonia.

**Inhalation:** May cause respiratory irritation. It can be aspirated into the lungs after ingestion, and may cause drowsiness and dizziness. In case of high concentrations or prolonged exposure, it may cause drowsiness and dizziness.

**Skin contact:** May cause skin irritation. Absorbs through the skin.

**Eye contact:** Causes eye irritation. Symptoms: Lacrimation, redness.

#### **Data about the propellant:**

In higher concentration the propellant may cause asphyxia and lack of oxygen.

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

Effects on the central nervous system and lung oedema/pneumonia may occur delayed. Keep patient under observation. Show this safety data sheet or the product's label to the physician.

## SECTION 5: FIREFIGHTING MEASURES

- 5.1. **Extinguishing media:**
- 5.1.1. **Suitable extinguishing media:**  
Extinguishing powder, alcohol-resistant foam, water spray.
- 5.1.2. **Unsuitable extinguishing media:**  
Strong water jet.
- 5.2. **Special hazards arising from the substance or mixture:**  
Extremely flammable aerosol. Pressurised container: May burst if heated.  
Gas may form explosive mixture with air.  
The heat of fire may cause a rapid increase of pressure inside the aerosol cans, which may explode.  
In case of fire, smoke and other combustion products (carbon monoxide, carbon dioxide, hydrocarbons, aldehydes, organic acids) may be formed; the inhalation of such combustion products can have serious adverse effects on health.
- 5.3. **Advice for firefighters:**  
Evacuate the surroundings. Extinguish from a safe distance or a protected location.  
Avoid breathing hazardous vapours and toxic decomposition products.  
The best method for extinguishing fires of flammable vapours is to stop gas escape before starting to extinguish. Release of larger quantities is not likely (aerosol can).  
Remove personnel and substances that haven't caught on fire to safety.  
Wear full protective clothing and self-contained breathing apparatus.  
Cool the containers in the danger zone with water spray.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

- 6.1. **Personal precautions, protective equipment and emergency procedures:**
- 6.1.1. **For non-emergency personnel:**  
Allow only well-trained experts wearing suitable protective clothing to abide in the field of accident.
- 6.1.2. **For emergency responders:**  
Remove unauthorized persons.  
Remove all sources of ignition.  
Provide adequate ventilation.  
Avoid contact with skin and eyes.  
Do not breathe the vapour/spray of the product.  
Wear full protective clothing and self-contained breathing apparatus.  
Warning! Product may present an explosion hazard if it reaches the sewage system.
- 6.2. **Environmental precautions:**  
Dispose of the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.  
Product may present an explosion hazard if it reaches the sewage system. Release of larger quantities is not likely (aerosol can).
- 6.3. **Methods and material for containment and cleaning up:**  
Remove all sources of ignition.  
Collect spilled material with non-combustible absorbent material (e.g. dry earth, sand, vermiculite etc.) and dispose of according to relevant regulations.  
Stop leakage if this can be done without risk.  
Control the concentration of gases with the help of water spray.  
Rags, paper towels and absorbent materials contaminated with this product may be flammable.  
Close down the area until gases are dispersed.  
Use only non-sparking tools.
- 6.4. **Reference to other sections:**  
For further and detailed information see Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

- 7.1. **Precautions for safe handling:**  
Observe conventional hygiene precautions.  
Avoid breathing spray of the product, its contact with skin and eyes as well as its ingestion.
- Technical measures:**  
Use only in a well-ventilated place.  
Use appropriate personal protection.

**Precautions against fire and explosion:**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 Observe precautions regarding pressurized containers.  
 Shut down all engines and sources of ignition.  
 Extremely flammable aerosol. Pressurised container: May burst if heated.  
 Do not expose to temperatures exceeding 50 °C.  
 Do not expose to sunlight or radiant heat. Do not pierce or burn, even after use.  
 Do not spray on naked flames or any incandescent materials.  
 It is prohibited to refill the container.

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

**Technical measures and storage condition:**

Provide adequate ventilation.  
 Take measures to prevent electrostatic charges.  
 Store in a dry and cool place, at temperatures below 35 °C.  
 Keep out of the reach of children.  
 Store separated from food.  
 Do not use towels which have previously been used to clean-up. Do not put the contaminated rags into your pocket.

**Incompatible materials:** See Section 10.5

**Packaging material:** No special prescriptions.

**7.3. Specific end use(s):**

See Section 1.2.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**8.1. Control parameters:**

**Occupational exposure limit values** (United Kingdom, EH40/2005 (Fourth Edition 2020)):

**Acetone** (CAS: 67-64-1):

Long-term exposure limit (8-hr TWA reference period): 500 ppm; 1210 mg/m<sup>3</sup>  
 Short-term exposure limit (15-minute reference period): 1500 ppm; 3620 mg/m<sup>3</sup>

**Propan-2-ol** (CAS: 67-63-0):

Long-term exposure limit (8-hr TWA reference period): 400 ppm; 999 mg/m<sup>3</sup>  
 Short-term exposure limit (15-minute reference period): 500 ppm; 1250 mg/m<sup>3</sup>

**Ethyl acetate** (CAS: 141-78-6):

Long-term exposure limit (8-hr TWA reference period): 200 ppm; 734 mg/m<sup>3</sup>  
 Short-term exposure limit (15-minute reference period): 400 ppm; 1468 mg/m<sup>3</sup>

**Butane** (CAS: 106-97-8):

Long-term exposure limit (8-hr TWA reference period): 600 ppm; 1450 mg/m<sup>3</sup>  
 Short-term exposure limit (15-minute reference period): 750 ppm; 1810 mg/m<sup>3</sup>

| DNEL values |          | Oral exposure      |                     | Dermal exposure    |                     | Inhalative exposure |                     |
|-------------|----------|--------------------|---------------------|--------------------|---------------------|---------------------|---------------------|
|             |          | Short term (acute) | Long term (chronic) | Short term (acute) | Long term (chronic) | Short term (acute)  | Long term (chronic) |
| Consumer    | Local    | no data            | no data             | no data            | no data             | no data             | no data             |
|             | Systemic | no data            | no data             | no data            | no data             | no data             | no data             |
| Worker      | Local    | no data            | no data             | no data            | no data             | no data             | no data             |
|             | Systemic | no data            | no data             | no data            | no data             | no data             | no data             |

| PNEC values                  |         |          |
|------------------------------|---------|----------|
| Compartment                  | Value   | Note(s)  |
| Freshwater                   | no data | no notes |
| Marine water                 | no data | no notes |
| Freshwater sediment          | no data | no notes |
| Marine water sediment        | no data | no notes |
| Sewage Treatment Plant (STP) | no data | no notes |
| Intermittent release         | no data | no notes |
| Secondary poisoning          | no data | no notes |
| Soil                         | no data | no notes |

**8.2. Exposure controls:**

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

**8.2.1. Appropriate engineering controls:**

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin. Use the product with adequate ventilation.

**8.2.2. Individual protection measures, such as personal protective equipment:**

Keep away from food, beverages and animal feed.

Wash hands before breaks and at the end of work.

The information regarding personal protective equipment is only for informative purposes. A complete risk assessment is required before the use of the product for the determination of the appropriate personal protective equipment, taking local circumstances into account.

1. **Eye/face protection:** If the risk of eye contact occurs, use appropriate protective glasses with side shields or face protection (EN 166). Provide eyewash station.
2. **Skin protection:**
  - a. **Hand protection:** Use appropriate protective gloves (EN 374). Suitable material: Nitrile rubber.
  - b. **Other:** If the risk of direct contact of splashing occurs, use appropriate protective clothing.
3. **Respiratory protection:** Use appropriate respiratory protective device with filter type "A" in case of vapour formation.
4. **Thermal hazards:** No thermal hazards known.

**8.2.3. Environmental exposure controls:**

Prevent the product and its waste from entering bodies of water, soil or the sewage system.

Observe local and national regulations concerning sewage treatment.

**The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions, an expert's advice is necessary before deciding upon further protective measures.**

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

| Parameter   | Value / Test method / Remarks   |
|---|---|
| 1. Physical state   | aerosol   |
| 2. Colour   | colourless  |
| 3. Odour, odour threshold                                   | odour like mineral oil  |
| 4. Melting point/freezing point                             | -187.6 – -138.3 °C (propellant)   |
| 5. Boiling point or initial boiling point and boiling range | -161.48 - -0.5 °C (propellant)  |
| 6. Flammability   | extremely flammable aerosol   |
| 7. Lower and upper explosion limit                          | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane: 1 – 6.5 vol%<br>acetone: 2 – 13 vol%<br>ethyl acetate: 2.2 – 11.5 vol%<br>propan-2-ol: 2 – 12.7 vol%<br>propellant: 5 – 15 vol% (literature data) |
| 8. Flash point  | -104 – -60 °C (propellant)  |
| 9. Auto-ignition temperature                                | 287-537 °C (propellant)   |
| 10. Decomposition temperature                               | no data*  |
| 11. pH  | not applicable  |
| 12. Kinematic viscosity                                     | no data*  |
| 13. Solubility in water<br>in other solvents                | not applicable;<br>24.4-60.4 mg/l (propellant)  |
| 14. Partition coefficient n-octanol/water (log value)       | no data*  |
| 15. Vapour pressure   | Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane: 250 hPa<br>acetone: 245 hPa<br>propan-2-ol: 43.2 hPa<br>ethyl acetate: 97.3 hPa<br>propellant: ≤ 1600 kPa (70 °C)                                 |
| 16. Density and/or relative density                         | ≥ 0.505 g/cm <sup>3</sup> (50 °C, propellant)   |
| 17. Relative vapour density                                 | no data*  |

|                              |          |
|------------------------------|----------|
| 18. Particle characteristics | no data* |
|------------------------------|----------|

9.2. **Other information:**

9.2.1. **Information with regard to physical hazard classes:**

Vapours may form explosive mixture with air.

9.2.2. **Other safety characteristics:**

No other characteristics available.

\*: The manufacturer did not carry out any tests on this parameter for the product or the results of the tests are not available at the time of publication of the data sheet, or the property is not applicable for the product.

## SECTION 10: STABILITY AND REACTIVITY

10.1. **Reactivity:**

No reactivity known.

10.2. **Chemical stability:**

Stable under normal conditions.

10.3. **Possibility of hazardous reactions:**

Product vapours may form explosive mixture with air which is heavier than air.

**Data about the propellant:**

Contact with strong oxidizing agents (peroxides, chromates etc.) may cause fire hazard.

10.4. **Conditions to avoid:**

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Pressurized container. Do not open, crash or pierce. Do not expose to temperatures exceeding 50 °C. Do not expose to sunlight or radiant heat. Do not pierce or burn, even after use. Do not spray in naked flames or on any incandescent materials. It is prohibited to refill the container.

10.5. **Incompatible materials:**

Strong bases, strong acids, oxidizing agents.

**Data about the propellant:**

May form explosive mixture with nitrates and other oxidizing agents (e.g. chlorates, perchlorates, liquid oxygen).

10.6. **Hazardous decomposition products:**

In case of fire toxic gases may be formed (carbon monoxide, carbon dioxide, hydrocarbons, aldehydes, organic acids).

## SECTION 11: TOXICOLOGICAL INFORMATION

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

**Acute toxicity:** Based on available data, the classification criteria are not met.

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

**Serious eye damage/irritation:** Causes serious eye irritation.

**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:** May cause drowsiness or dizziness.

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

**Aspiration hazard:** May be fatal if swallowed and enters airways.

11.1.1. **Summaries of the information derived from the test conducted:**

No data available.

11.1.2. **Relevant toxicological properties:**

Acute toxicity:

No toxicological data is available regarding the mixture.

Data about the ingredients:

**Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-89-8):**

LD50 (oral, rat): >5000 mg/kg

LC50 (inhalation, rat): 12 ppm/4h

LD50 (skin, rabbit): >2000 mg/kg

**Acetone (CAS: 67-64-1):**

LD50 (oral, rat): 5800 mg/kg

LC50 (inhalation, rat): 50 100 mg/l/8h

LD50 (skin, rabbit): 7426 mg/kg

**Ethyl acetate (CAS: 141-78-6):**

LD50 (oral, rat): 5620 mg/kg  
LC50 (inhalation, mouse): 45 000 mg/l/2h  
LD50 (skin, rabbit): 180 000 mg/kg

**Propan-2-ol (CAS: 67-63-0):**

LD50 (oral, rat): 5045 mg/kg  
LC50 (inhalation, rat): 16 000 ppm/8h  
LD50 (skin, rabbit): 12 800 mg/kg

**Data about the propellant:**

**Propane (CAS: 74-98-6):**

Inhalation (rat): 1443 mg/l (literature data)

**Butane (CAS: 106-97-8):**

Inhalation (rat): 658 mg/l (literature data)

**Isobutane (CAS: 75-28-5):**

Inhalation (mouse): 974 mg/l (literature data)

Information about the mixture:

**Skin corrosion/irritation:**

Slightly irritating, ready to absorb, may affect the nervous system.

In case of longer or repeated exposure, may remove the natural fat of the skin and cause dryness of the skin and dermatitis.

**Serious eye damage/irritation:**

Causes irritation.

Symptoms: Redness, pain, oedema, lacrimation.

**Respiratory or skin sensitisation:**

Not classified.

In case of inhalation: Vapours inhaled in high concentration have a narcotic effect on the central nervous system. Symptoms include nausea, loss of consciousness.

Inhalation of vapours or aerosols may cause irritation of the airways and mucous membranes.

**STOT-single exposure:**

May cause drowsiness and dizziness.

**Aspiration hazard:**

Ingestion is not likely (aerosol can).

**11.1.3. Information on likely routes of exposure:**

Inhalation, skin contact, eye contact.

**11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:**

Ingestion: In case of accidental ingestion, causes irritation in the gastrointestinal tract. Liquid drops in the lungs may cause lung oedema and pneumonia.

Inhalation: May cause respiratory irritation. It can be aspirated into the lungs after ingestion, and may cause drowsiness and dizziness. May cause drowsiness and dizziness in case of higher concentration or longer exposure.

Skin contact: May cause skin irritation. Absorbs through the skin.

Eye contact: Causes eye irritation. Symptoms: Lacrimation, redness.

**Data about the propellant:**

In higher concentration the propellant may cause asphyxia and lack of oxygen.

**11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:**

May be fatal if swallowed and enters airways.

Causes serious eye irritation.

May cause drowsiness or dizziness.

Repeated exposure may cause skin dryness or cracking.

**11.1.6. Interactive effects:**

No data available.

**11.1.7. Absence of specific data:**

No information.

**11.2. Information on other hazards:**

**Endocrine disrupting properties:**

Endocrine disrupting property: Based on available data, it does not contain endocrine disruptors.

**Other information:**

No data available.



## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. **Toxicity:**

Toxic to aquatic life with long lasting effects.

Do not let the product into bodies of water, the sewage system or the soil.

Data about the ingredients:

**Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-89-8):**

EC<sub>50</sub> (fish): 100 mg/l/96h

EC<sub>50</sub> (Daphnia): 3.8 mg/l/48h

**Acetone (CAS: 67-64-1):**

EC<sub>50</sub> (fish): 5540 mg/l/96h

EC<sub>50</sub> (daphnia): 13500 mg/l/48h

**Ethyl acetate (CAS: 141-78-6):**

EC<sub>50</sub> (fish): 350 000 mg/l/96h

EC<sub>50</sub> (Daphnia): 2300 mg/l/48h

EC<sub>50</sub> (algae): 1800 mg/l/72h

**Propan-2-ol (CAS: 67-63-0):**

EC<sub>50</sub> (fish): 9640 mg/l/96h

EC<sub>50</sub> (Daphnia): 6851 mg/l/48h

EC<sub>50</sub> (algae): >2000 mg/l/72h

**Data about the propellant:**

**Propane (CAS: 74-98-6):**

LC<sub>50</sub> (fish): 49.47 mg/l (literature data)

LC<sub>50</sub> (other aquatic organisms): 27.14 mg/l (literature data)

EC<sub>50</sub> (algae): 11.89 mg/l/72h (literature data)

**Butane (CAS: 106-97-8):**

LC<sub>50</sub> (fish): 24.11 mg/l (literature data)

LC<sub>50</sub> (other aquatic organisms): 14.22 mg/l (literature data)

EC<sub>50</sub> (algae): 7.71 mg/l/96h (literature data)

**Isobutane (CAS: 75-28-5):**

LC<sub>50</sub> (fish): 27.89 mg/l (literature data)

LC<sub>50</sub> (other aquatic organisms): 16.33 mg/l (literature data)

EC<sub>50</sub> (algae): 8.57 mg/l/96h (literature data)

### 12.2. **Persistence and degradability:**

No data available.

### 12.3. **Bioaccumulative potential:**

No data available about the product.

Data about the ingredients:

**Hydrocarbons, C6-C7, isoalkanes, cyclics, <5% n-hexane (CAS: 64742-89-8):**

log Pow: 3-6

**Propan-2-ol (CAS: 67-63-0):**

log Pow: <4

**Data about the propellant:**

**Propane (CAS: 74-98-6):**

log Kow: 1.09-2.8 (literature data)

**Butane (CAS: 106-97-8):**

log Kow: 1.09-2.8 (literature data)

**Isobutane (CAS: 75-28-5):**

log Kow: 1.09-2.8 (literature data)

### 12.4. **Mobility in soil:**

No data available.

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

The product does not contain PBT or vPvB substances.

### 12.6. **Endocrine disrupting properties:**

Endocrine disrupting property: Based on available data, it does not contain endocrine disruptors.

### 12.7. **Other adverse effects:**

No data available.

## SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods:**  
Disposal according to the local regulations.
- 13.1.1. Information regarding the disposal of the product:**  
Dispose of in accordance with applicable regulations.  
**List of Waste Code:**  
**16 05 04\*** gases in pressure containers (including halons) containing hazardous substances  
\*: Hazardous waste.
- 13.1.2. Information regarding the disposal of the packaging:**  
Dispose of in accordance with applicable regulations.
- 13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:**  
No data available.
- 13.1.4. Sewage disposal:**  
No data available.
- 13.1.5. Special precautions for any recommended waste treatment:**  
No data available.

## SECTION 14: TRANSPORT INFORMATION

- 14.1. UN number or ID number:**  
ADR/RID:  
UN 1950
- 14.2. UN proper shipping name:**  
ADR/RID: AEROSOLS, flammable
- 14.3. Transport hazard class(es):**  
Class: 2  
Classification code: 5F  
Label: 2.1  
Tunnel restriction code: (B/D)  
Limited quantities (LQ): 2
- 14.4. Packing group:**  
No packing group.
- 14.5. Environmental hazards:**  
Environmentally hazardous: Yes.
- 14.6. Special precautions for user:**  
No relevant information available.
- 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:**

**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 (EC) No 1999/45 and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive (EEC) No 76/769 and Commission Directives (EEC) No 91/155, (EEC) No 93/67, (EC) No 93/105 and (EC) No 2000/21

**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 (EEC) No 67/548 and (EC) No 1999/45, and amending Regulation (EC) No 1907/2006

**COMMISSION REGULATION (EU) 2020/878** of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

**REGULATION (EC) No 648/2004** OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 March 2004 on detergents

**COMMISSION DIRECTIVE (EU) No 2013/10/EU** of 19 March 2013 amending Council Directive (EEC) No 75/324 on the approximation of the laws of the Member States relating to aerosol dispensers in order to adapt its labelling provisions to Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures

The mixture contains an ingredient which is subject to Regulation (EU) 2019/1148 on the marketing and use of explosives precursors:

**ANNEX II - REPORTABLE EXPLOSIVES PRECURSORS**

List of substances on their own or in mixtures or in substances for which suspicious transactions and significant disappearances and thefts are to be reported within 24 hours:

Acetone (CAS RN 67-64-1)

15.2. **Chemical safety assessment:** The distributor has not performed a chemical safety assessment.

## SECTION 16: OTHER INFORMATION

**Information regarding the revision of the safety data sheet:**

The safety data sheet has been revised according to Regulation (EU) 2020/878 (Section 1-16).

The composition of the mixture was modified compared to the previous version.

The hazard classification of the mixture did not change compared to the previous version.

This safety data sheet supersedes all previous versions according to Annex II of Regulation (EC) No 1907/2006.

**Literature references / data sources:**

Previous version of the safety data sheet (30. 06. 2020., version 1).

Information provided by the manufacturer (new composition, safety data sheet of ingredients).

**Methods used for the classification according to Regulation (EC) No 1272/2008:**

| Classification   | Method                            |
|--|-----------------------------------|
| Aerosols, Hazard Category 1 – H222; H229   | Based on test methods (test data) |
| Aspiration hazard, Hazard Category 1 – H304  | Based on calculation method       |
| Serious eye damage/eye irritation, Hazard Category 2 – H319                          | Based on calculation method       |
| Specific target organ toxicity – Single exposure, Hazard Category 3, Narcosis – H336 | Based on calculation method       |
| Hazardous to the aquatic environment – Chronic Hazard, Category 2 – H411             | Based on calculation method       |

**Relevant hazard statements (code and full text) of Sections 2 and 3:**

**H220** – Extremely flammable gas.

**H222** – Extremely flammable aerosol.

**H225** – Highly flammable liquid and vapour.

**H229** – Pressurised container: May burst if heated.

**H280** – Contains gas under pressure; may explode if heated.

**H304** – May be fatal if swallowed and enters airways.

**H319** – Causes serious eye irritation.

**H336** – May cause drowsiness or dizziness.

**H411** – Toxic to aquatic life with long lasting effects.

**EUH 066** – Repeated exposure may cause skin dryness or cracking.

**Training advice:** No data available.

**Full text of the abbreviations in the safety data sheet:**

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE: Acute Toxicity Estimate.

AOX: Adsorbable organic halides.

BCF: Bioconcentration factor.

BOD: Biological Oxygen Demand.

CAS number: Chemical Abstract Service number.  
CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.  
CMR effects: Carcinogenic, mutagenic, reprotoxic effects.  
COD: Chemical Oxygen Demand.  
CSA: Chemical Safety Assessment.  
CSR: Chemical Safety Report.  
DNEL: Derived-No-Effect-Level.  
ECHA: European Chemical Agency.  
EC: European Community.  
EC number: EINECS and ELINCS numbers (see also EINECS and ELINCS).  
EEC: European Economic Community.  
EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
ELINCS: European List of Notified Chemical Substances.  
EN: European Norm.  
EU: European Union.  
EWC: European Waste Catalogue (replaced by LoW – see below).  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.  
IATA: International Air Transport Association.  
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.  
IMDG: International Maritime Dangerous Goods.  
IMO: International Maritime Organization.  
IMSBC: International Maritime Solid Bulk Cargoes.  
IUCLID: International Uniform Chemical Information Database.  
IUPAC: International Union of Pure and Applied Chemistry.  
Kow: n-Octanol - Water Partition Coefficient.  
LC50: Lethal concentration resulting in 50 % mortality.  
LD50: Lethal dose resulting in 50 % mortality (median lethal dose).  
LoW: List of Waste.  
LOEC: Lowest Observed Effect Concentration.  
LOEL: Lowest Observed Effect Level.  
NOEC: No Observed Effect Concentration.  
NOEL: No Observed Effect Level.  
NOAEC: No Observed Adverse Effect Concentration.  
NOAEL: No Observed Adverse Effect Level.  
OECD: Organization for Economic Cooperation and Development.  
OSHA: Occupational Safety and Health Administration.  
PBT: Persistent, Bioaccumulative and Toxic.  
PNEC: Predicted No Effect Concentration.  
QSAR: Quantitative Structure Activity Relationship.  
REACH: Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.  
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.  
SCBA: Self Contained Breathing Apparatus.  
SDS: Safety Data Sheet.  
STOT: Specific Target Organ Toxicity.  
SVHC: Substances of Very High Concern.  
UN: United Nations.  
UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.  
VOC: Volatile Organic Compound.  
vPvB: very Persistent and very Bioaccumulative.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations.

The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information.

The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product.

It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.