# MIEDŹ W SPRAY'U - COPPER GREASE - SPRAY

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

**1.1 Product identifier:** MIEDŹ W SPRAY'U - COPPER GREASE - SPRAY

**Other means of identification:**

Mixture identifier: contains: hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclic, containing <5% n-hexane; amines, hydrogenated tallow alkyl

**UFI:** F4V2-A0DF-W00N-FPEX

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

Relevant uses: Copper spray.

Uses advised against: All uses not specified in this section or in section 7.3

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

Agencja Handlowa BOLL Wojciech Dalewski Spółka Jawna
ul. Chemiczna 3
65-713 Zielona Góra - Polska
Phone: 68 451 99 99 - Fax: 68 451 99 00
huszcza@boll.pl

**1.4 Emergency telephone number:**

## SECTION 2: HAZARDS IDENTIFICATION **

**2.1 Classification of the substance or mixture:**

**CLP Regulation (EC) No 1272/2008:**

Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.

Aerosol 1: Flammable aerosols, Category 1, H222
Aerosol 1: Pressurised container: May burst if heated., H229
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard, Category 1, H410
Skin Irrit. 2: Skin irritation, Category 2, H315
STOT SE 3: Specific toxicity causing drowsiness and dizziness, single exposure, Category 3, H336

**2.2 Label elements:**

**CLP Regulation (EC) No 1272/2008:**

**Danger**

**Hazard statements:**

H222 - Extremely flammable aerosol.
H229 - Pressurised container: May burst if heated.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H410 - Very toxic to aquatic life with long lasting effects.

**Precautionary statements:**

*** Changes with regards to the previous version*

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## SECTION 2: HAZARDS IDENTIFICATION ** (continued)

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: Do not pierce or burn, even after use.
P260: Do not breathe spray.
P271: Use only outdoors or in a well-ventilated area.
P273: Avoid release to the environment.
P280: Wear protective gloves/eye protection.
P302+P352: IF ON SKIN: Wash with plenty of water.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P312: Call a POISON CENTER/doctor if you feel unwell.
P403: Store in a well-ventilated place.
P410+P412: Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.

**Substances that contribute to the classification**

Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane

**UFI:** F4V2-A0DF-W00N-FPEX

**2.3 Other hazards:**

Product fails to meet PBT/vPvB criteria
Endocrine-disrupting properties: The product fails to meet the criteria.

*** Changes with regards to the previous version*

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

**3.1 Substance:**

Non-applicable

**3.2 Mixture:**

**Chemical description:** active ingredient mixture with a propellant.

**Components:**

In accordance with Annex II of Regulation (EC) No 1907/2006 (point 3), the product contains:

| Identification | Chemical name/Classification | | Concentration |
|---|---|---|---|
| CAS: Non-applicable<br>EC: 921-024-6<br>Index: Non-applicable<br>REACH: 01-2119475514-35-XXXX | **Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane(1)** Self-classified | | **25 - <50 %** |
| | Regulation 1272/2008 | Aquatic Chronic 2: H411; Asp. Tox. 1: H304; Flam. Liq. 2: H225; Skin Irrit. 2: H315; STOT SE 3: H336 - Danger | |
| CAS: 106-97-8<br>EC: 203-448-7<br>Index: 601-004-00-0<br>REACH: 01-2119474691-32-XXXX | **Butane(1)** ATP CLP00 | | **10 - <25 %** |
| | Regulation 1272/2008 | Flam. Gas 1A: H220; Press. Gas: H280 - Danger | |
| CAS: 74-98-6<br>EC: 200-827-9<br>Index: 601-003-00-5<br>REACH: 01-2119486944-21-XXXX | **Propane(1)** ATP CLP00 | | **10 - <25 %** |
| | Regulation 1272/2008 | Flam. Gas 1A: H220; Press. Gas: H280 - Danger | |
| CAS: 7440-50-8<br>EC: 231-164-3<br>Index: Non-applicable<br>REACH: Non-applicable | **Miedź [Cu](1)** Self-classified | | **2,5 - <10 %** |
| | Regulation 1272/2008 | Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 2: H411 - Warning | |
| CAS: 75-28-5<br>EC: 200-857-2<br>Index: 601-004-00-0<br>REACH: 01-2119485395-27-XXXX | **Isobutane(1)** ATP CLP00 | | **2,5 - <10 %** |
| | Regulation 1272/2008 | Flam. Gas 1A: H220; Press. Gas: H280 - Danger | |

(1) Voluntarily-listed substance failing to meet any of the criteria set out in Regulation (EU) No. 2020/878

*** Changes with regards to the previous version*

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## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS ** (continued)

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

**Other information:**

| Identification | | M-factor | |
|---|---|---|---|
| Miedź [Cu] | | Acute | 10 |
| CAS: 7440-50-8 | EC: 231-164-3 | Chronic | 1 |

*** Changes with regards to the previous version*

## SECTION 4: FIRST AID MEASURES

**4.1 Description of first aid measures:**

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

**By inhalation:**

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

**By skin contact:**

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

**By eye contact:**

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

**By ingestion/aspiration:**

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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

Acute and delayed effects are indicated in sections 2 and 11.

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

Non-applicable

## SECTION 5: FIREFIGHTING MEASURES

**5.1 Extinguishing media:**

**Suitable extinguishing media:**

If possible use polyvalent powder fire extinguishers (ABC powder), alternatively use foam or carbon dioxide extinguishers ($CO_2$).

**Unsuitable extinguishing media:**

IT IS RECOMMENDED NOT to use full jet water as an extinguishing agent.

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

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

**5.3 Advice for firefighters:**

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit,...) in accordance with Directive 89/654/EC.

**Additional provisions:**

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## SECTION 5: FIREFIGHTING MEASURES (continued)

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:**

**For non-emergency personnel:**

Isolate leaks provided that there is no additional risk for the people performing this task. Evacuate the area and keep out those without protection. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Above all prevent the formation of any vapour-air flammable mixtures, through either ventilation or the use of an inert medium. Remove any source of ignition. Eliminate electrostatic charges by interconnecting all the conductive surfaces on which static electricity could form, and also ensuring that all surfaces are connected to the ground.

**For emergency responders:**

Wear protective equipment. Keep unprotected persons away. See section 8.

**6.2 Environmental precautions:**

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

**6.3 Methods and material for containment and cleaning up:**

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

**6.4 Reference to other sections:**

See sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

**7.1 Precautions for safe handling:**

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

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

Avoid the evaporation of the product as it contains flammable substances, which could form flammable vapour/air mixtures in the presence of sources of ignition. Control sources of ignition (mobile phones, sparks,...) and transfer at slow speeds to avoid the creation of electrostatic charges. Consult section 10 for conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

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

A.- Technical measures for storage

| | |
|---|---|
| Minimum Temp.: | 5 ºC |
| Maximum Temp.: | 20 ºC |
| Maximum time: | 24 Months |

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

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

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## SECTION 7: HANDLING AND STORAGE (continued)

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1 Control parameters:**

Substances whose occupational exposure limits have to be monitored in the workplace (European OEL, not country-specific legislation):

There are no applicable occupational exposure limits for the substances contained in the product

**DNEL (Workers):**

| Identification | | Short exposure | | Long exposure | |
|---|---|---|---|---|---|
| | | Systemic | Local | Systemic | Local |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| CAS: Non-applicable | Dermal | Non-applicable | Non-applicable | 773 mg/kg | Non-applicable |
| EC: 921-024-6 | Inhalation | Non-applicable | Non-applicable | 2035 mg/m³ | Non-applicable |
| Miedź [Cu] | Oral | Non-applicable | Non-applicable | Non-applicable | Non-applicable |
| CAS: 7440-50-8 | Dermal | 273 mg/kg | Non-applicable | 137 mg/kg | Non-applicable |
| EC: 231-164-3 | Inhalation | Non-applicable | Non-applicable | Non-applicable | Non-applicable |

**DNEL (General population):**

| Identification | | Short exposure | | Long exposure | |
|---|---|---|---|---|---|
| | | Systemic | Local | Systemic | Local |
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | Oral | Non-applicable | Non-applicable | 699 mg/kg | Non-applicable |
| CAS: Non-applicable | Dermal | Non-applicable | Non-applicable | 699 mg/kg | Non-applicable |
| EC: 921-024-6 | Inhalation | Non-applicable | Non-applicable | 608 mg/m³ | Non-applicable |
| Miedź [Cu] | Oral | Non-applicable | Non-applicable | 0,041 mg/kg | Non-applicable |
| CAS: 7440-50-8 | Dermal | 273 mg/kg | Non-applicable | 137 mg/kg | Non-applicable |
| EC: 231-164-3 | Inhalation | Non-applicable | 1 mg/m³ | Non-applicable | 1 mg/m³ |

**PNEC:**

| Identification | | | | |
|---|---|---|---|---|
| Miedź [Cu] | STP | 0,23 mg/L | Fresh water | 0,0078 mg/L |
| CAS: 7440-50-8 | Soil | 65 mg/kg | Marine water | 0,0052 mg/L |
| EC: 231-164-3 | Intermittent | Non-applicable | Sediment (Fresh water) | 87 mg/kg |
| | Oral | Non-applicable | Sediment (Marine water) | 676 mg/kg |

**8.2 Exposure controls:**

A.- Individual protection measures, such as personal protective equipment

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,…) consult the information leaflet provided by the manufacturer. For more information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---|---|---|---|---|
|  Mandatory respiratory tract protection | Filter mask for gases, vapours and particles | CE CAT III | EN 149:2001+A1:2009<br>EN 405:2002+A1:2010<br>EN ISO 136:1998 | Replace when an increase in resistence to breathing is observed and/or a smell or taste of the contaminant is detected. |

C.- Specific protection for the hands

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## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---|---|---|---|---|
|  Mandatory hand protection | Protective gloves against minor risks | CE CAT I | | Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN 420:2004+ A1:2010 and EN ISO 374-1:2016+A1:2018 |

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---|---|---|---|---|
|  Mandatory face protection | Panoramic glasses against splash/projections. | CE CAT II | EN 166:2002<br>EN ISO 4007:2018 | Clean daily and disinfect periodically according to the manufacturer´s instructions. Use if there is a risk of splashing. |

E.- Body protection

| Pictogram | PPE | Labelling | CEN Standard | Remarks |
|---|---|---|---|---|
|  Mandatory complete body protection | Antistatic and fireproof protective clothing | CE CAT III | EN 1149-1:2006<br>EN 1149-2:1997<br>EN 1149-3:2004<br>EN 168:2002<br>EN ISO 14116:2015<br>EN 1149-5:2018 | Limited protection against flames. |
|  Mandatory foot protection | Safety footwear with antistatic and heat resistant properties | CE CAT III | EN ISO 13287:2020<br>EN ISO 20345:2011 | Replace boots at any sign of deterioration. |

F.- Additional emergency measures

| Emergency measure | Standards | Emergency measure | Standards |
|---|---|---|---|
|  Emergency shower | ANSI Z358-1<br>ISO 3864-1:2011, ISO 3864-4:2011 |  Eyewash stations | DIN 12 899<br>ISO 3864-1:2011, ISO 3864-4:2011 |

**Environmental exposure controls:**

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

**Volatile organic compounds:**

With regard to Directive 2010/75/EU, this product has the following characteristics:

V.O.C. (Supply): 65 % weight

V.O.C. density at 20 ºC: 464,1 kg/m³ (464,1 g/L)

Average carbon number: 7

Average molecular weight: 98 g/mol

With regard to Directive 2004/42/EC, this product which is ready to use has the following characteristics:

V.O.C. density at 20 ºC: 464,1 kg/m³ (464,1 g/L)

EU limit for the product (Cat. B.E): 840 g/L (2010)

Components: Non-applicable

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

*Not relevant due to the nature of the product, not providing information property of its hazards.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

For complete information see the product datasheet.

**Appearance:**

| | |
|---|---|
| Physical state at 20 ºC: | Aerosol |
| Appearance: | Fluid |
| Colour: | Characteristic |
| Odour: | Characteristic |
| Odour threshold: | Non-applicable * |

**Volatility:**

| | |
|---|---|
| Boiling point at atmospheric pressure: | -45 ºC (Propellant) |
| Vapour pressure at 20 ºC: | 379969 Pa |
| Vapour pressure at 50 ºC: | Non-applicable * |
| Evaporation rate at 20 ºC: | Non-applicable * |

**Product description:**

| | |
|---|---|
| Density at 20 ºC: | 714 kg/m³ |
| Relative density at 20 ºC: | 0,714 |
| Dynamic viscosity at 20 ºC: | Non-applicable * |
| Kinematic viscosity at 20 ºC: | Non-applicable * |
| Kinematic viscosity at 40 ºC: | Non-applicable * |
| Concentration: | Non-applicable * |
| pH: | Non-applicable * |
| Vapour density at 20 ºC: | Non-applicable * |
| Partition coefficient n-octanol/water 20 ºC: | Non-applicable * |
| Solubility in water at 20 ºC: | Non-applicable * |
| Solubility properties: | Insoluble in water |
| Decomposition temperature: | Non-applicable * |
| Melting point/freezing point: | Non-applicable * |
| Recipient pressure: | Non-applicable * |

**Flammability:**

| | |
|---|---|
| Flash Point: | Non-applicable |
| Flammability (solid, gas): | Non-applicable * |
| Autoignition temperature: | Non-applicable * |
| Lower flammability limit: | 0,8 % Volume |
| Upper flammability limit: | 10,9 % Volume |

**Particle characteristics:**

| | |
|---|---|
| Median equivalent diameter: | Non-applicable |

**9.2 Other information:**

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

| | |
|---|---|
| Explosive properties: | Non-applicable * |
| Oxidising properties: | Non-applicable * |
| Corrosive to metals: | Non-applicable * |
| Heat of combustion: | Non-applicable * |
| Aerosols-total percentage (by mass) of flammable components: | Non-applicable * |

**Other safety characteristics:**

*Not relevant due to the nature of the product, not providing information property of its hazards.

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## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

| | |
|---|---|
| Surface tension at 20 ºC: | Non-applicable * |
| Refraction index: | Non-applicable * |

*Not relevant due to the nature of the product, not providing information property of its hazards.

## SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:**

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7.

**10.2 Chemical stability:**

Chemically stable under the indicated conditions of storage, handling and use.

**10.3 Possibility of hazardous reactions:**

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

**10.4 Conditions to avoid:**

Applicable for handling and storage at room temperature:

| Shock and friction | Contact with air | Increase in temperature | Sunlight | Humidity |
|---|---|---|---|---|
| Not applicable | Not applicable | Risk of combustion | Avoid direct impact | Not applicable |

**10.5 Incompatible materials:**

| Acids | Water | Oxidising materials | Combustible materials | Others |
|---|---|---|---|---|
| Avoid strong acids | Not applicable | Avoid direct impact | Not applicable | Avoid alkalis or strong bases |

**10.6 Hazardous decomposition products:**

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide ($CO_2$), carbon monoxide and other organic compounds.

## SECTION 11: TOXICOLOGICAL INFORMATION

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

The experimental information related to the toxicological properties of the product itself is not available

**Dangerous health implications:**

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: The consumption of a considerable dose can cause irritation in the throat, abdominal pain, nausea and vomiting.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for inhalation. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Produces skin inflammation.
- Contact with the eyes: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

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

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## SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
  IARC: Non-applicable
- Mutagenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

F- Specific target organ toxicity (STOT) - single exposure:

Exposure in high concentration can interfere with the central nervous system causing headache, dizziness, vertigo, nausea, vomiting, confusion, and in serious 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, as it does not contain substances classified as hazardous for this effect. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

**Other information:**

Non-applicable

**Specific toxicology information on the substances:**

| Identification | Acute toxicity | | Genus |
|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | LD50 oral | 5840 mg/kg | Rat |
| CAS: Non-applicable | LD50 dermal | 2920 mg/kg | Rat |
| EC: 921-024-6 | LC50 inhalation | >20 mg/L | |
| Butane | LD50 oral | >2000 mg/kg | |
| CAS: 106-97-8 | LD50 dermal | >2000 mg/kg | |
| EC: 203-448-7 | LC50 inhalation | 658 mg/L (4 h) | Rat |
| Propane | LD50 oral | >2000 mg/kg | |
| CAS: 74-98-6 | LD50 dermal | >2000 mg/kg | |
| EC: 200-827-9 | LC50 inhalation | >5 mg/L | |
| Miedź [Cu] | LD50 oral | 500 mg/kg (ATEi) | |
| CAS: 7440-50-8 | LD50 dermal | >2000 mg/kg | |
| EC: 231-164-3 | LC50 inhalation | >5 mg/L | |
| Isobutane | LD50 oral | >2000 mg/kg | |
| CAS: 75-28-5 | LD50 dermal | >2000 mg/kg | |
| EC: 200-857-2 | LC50 inhalation | >5 mg/L | |

**11.2 Information on other hazards:**

**Endocrine disrupting properties**

Endocrine-disrupting properties: The product fails to meet the criteria.

**Other information**

Non-applicable

## SECTION 12: ECOLOGICAL INFORMATION

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## SECTION 12: ECOLOGICAL INFORMATION (continued)

The experimental information related to the eco-toxicological properties of the product itself is not available

**12.1 Toxicity:**

**Acute toxicity:**

| Identification | Concentration | | Species | Genus |
|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | LC50 | 5,1 mg/L (96 h) | Oncorhynchus mykiss | Fish |
| CAS: Non-applicable | EC50 | Non-applicable | | |
| EC: 921-024-6 | EC50 | Non-applicable | | |
| Miedź [Cu] | LC50 | >0.1 - 1 mg/L (96 h) | | Fish |
| CAS: 7440-50-8 | EC50 | >0.1 - 1 mg/L (48 h) | | Crustacean |
| EC: 231-164-3 | EC50 | >0.1 - 1 mg/L (72 h) | | Algae |

**Chronic toxicity:**

| Identification | Concentration | | Species | Genus |
|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | NOEC | Non-applicable | | |
| CAS: Non-applicable EC: 921-024-6 | NOEC | 0,17 mg/L | Daphnia magna | Crustacean |

**12.2 Persistence and degradability:**

**Substance-specific information:**

| Identification | Degradability | | Biodegradability | |
|---|---|---|---|---|
| Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane | BOD5 | Non-applicable | Concentration | Non-applicable |
| CAS: Non-applicable | COD | Non-applicable | Period | 28 days |
| EC: 921-024-6 | BOD5/COD | Non-applicable | % Biodegradable | 98 % |

**12.3 Bioaccumulative potential:**

**Substance-specific information:**

| Identification | Bioaccumulation potential | |
|---|---|---|
| Butane | BCF | 33 |
| CAS: 106-97-8 | Pow Log | 2.89 |
| EC: 203-448-7 | Potential | Moderate |
| Propane | BCF | 13 |
| CAS: 74-98-6 | Pow Log | 2.86 |
| EC: 200-827-9 | Potential | Low |
| Isobutane | BCF | 27 |
| CAS: 75-28-5 | Pow Log | 2.76 |
| EC: 200-857-2 | Potential | Low |

**12.4 Mobility in soil:**

| Identification | Absorption/desorption | | Volatility | |
|---|---|---|---|---|
| Butane | Koc | 900 | Henry | 96258,75 Pa·m³/mol |
| CAS: 106-97-8 | Conclusion | Low | Dry soil | Yes |
| EC: 203-448-7 | Surface tension | 1,187E-2 N/m (25 ºC) | Moist soil | Yes |
| Propane | Koc | 460 | Henry | 71636,78 Pa·m³/mol |
| CAS: 74-98-6 | Conclusion | Moderate | Dry soil | Yes |
| EC: 200-827-9 | Surface tension | 7,02E-3 N/m (25 ºC) | Moist soil | Yes |
| Isobutane | Koc | 35 | Henry | 120576,75 Pa·m³/mol |
| CAS: 75-28-5 | Conclusion | Very High | Dry soil | Yes |
| EC: 200-857-2 | Surface tension | 9,84E-3 N/m (25 ºC) | Moist soil | Yes |

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

Product fails to meet PBT/vPvB criteria

**12.6 Endocrine disrupting properties:**

Endocrine-disrupting properties: The product fails to meet the criteria.

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## SECTION 12: ECOLOGICAL INFORMATION (continued)

**12.7 Other adverse effects:**

Not described

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1 Waste treatment methods:**

| Code | Description | Waste class (Regulation (EU) No 1357/2014) |
|---|---|---|
| 16 05 04* | gases in pressure containers (including halons) containing hazardous substances | Dangerous |

**Type of waste (Regulation (EU) No 1357/2014):**

HP3 Flammable, HP14 Ecotoxic, HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity, HP4 Irritant — skin irritation and eye damage

**Waste management (disposal and evaluation):**

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-dangerous residue. Waste should not be disposed of to drains. See paragraph 6.2.

**Regulations related to waste management:**

In accordance with Annex II of Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

## SECTION 14: TRANSPORT INFORMATION

**Transport of dangerous goods by land:**

With regard to ADR 2021 and RID 2021:

| | | |
|---|---|---|
| **14.1** | **UN number or ID number:** | UN1950 |
| **14.2** | **UN proper shipping name:** | AEROSOLS |
| **14.3** | **Transport hazard class(es):** | 2 |
| | Labels: | 2.1 |
| **14.4** | **Packing group:** | N/A |
| **14.5** | **Environmental hazards:** | Yes |
| **14.6** | **Special precautions for user** | |
| | Special regulations: | 190, 327, 344, 625 |
| | Tunnel restriction code: | D |
| | Physico-Chemical properties: | see section 9 |
| | Limited quantities: | 1 L |
| **14.7** | **Maritime transport in bulk according to IMO instruments:** | Non-applicable |

**Transport of dangerous goods by sea:**

With regard to IMDG 40-20:

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## SECTION 14: TRANSPORT INFORMATION (continued)

| | | |
|---|---|---|
| **14.1** | **UN number or ID number:** | UN1950 |
| **14.2** | **UN proper shipping name:** | AEROSOLS |
| **14.3** | **Transport hazard class(es):** | 2 |
| | Labels: | 2.1 |
| **14.4** | **Packing group:** | N/A |
| **14.5** | **Marine pollutant:** | Yes |
| **14.6** | **Special precautions for user** | |
| | Special regulations: | 63, 959, 190, 277, 327, 344 |
| | EmS Codes: | F-D, S-U |
| | Physico-Chemical properties: | see section 9 |
| | Limited quantities: | 1 L |
| | Segregation group: | Non-applicable |
| **14.7** | **Maritime transport in bulk according to IMO instruments:** | Non-applicable |

**Transport of dangerous goods by air:**

With regard to IATA/ICAO 2022:

| | | |
|---|---|---|
| **14.1** | **UN number or ID number:** | UN1950 |
| **14.2** | **UN proper shipping name:** | AEROSOLS |
| **14.3** | **Transport hazard class(es):** | 2 |
| | Labels: | 2.1 |
| **14.4** | **Packing group:** | N/A |
| **14.5** | **Environmental hazards:** | Yes |
| **14.6** | **Special precautions for user** | |
| | Physico-Chemical properties: | see section 9 |
| **14.7** | **Maritime transport in bulk according to IMO instruments:** | Non-applicable |

## SECTION 15: REGULATORY INFORMATION

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

Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Non-applicable

Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Non-applicable

Regulation (EC) No 1005/2009, about substances that deplete the ozone layer: Non-applicable

Article 95, REGULATION (EU) No 528/2012: Miedź [Cu] (Product-type 2, 5, 11, 21)

REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Non-applicable

**Seveso III:**

| Section | Description | Lower-tier requirements | Upper-tier requirements |
|---|---|---|---|
| P3a | FLAMMABLE AEROSOLS | 150 | 500 |
| E1 | ENVIRONMENTAL HAZARDS | 100 | 200 |

**Limitations to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII REACH, etc ....):**

Shall not be used in:
—ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
—tricks and jokes,
—games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

**Specific provisions in terms of protecting people or the environment:**

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## SECTION 15: REGULATORY INFORMATION (continued)

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

**Other legislation:**

The product could be affected by sectorial legislation

Council Directive 75/324/EEC of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers
Commission Directive 94/1/EC of 6 January 1994 adapting some technicalities of Council Directive 75/324/EEC on the approximation of the laws of the relating Member States to aerosol dispensers
Commission Directive 2008/47/EC of 8 April 2008 amending, for the purposes of adapting to technical progress, Council Directive 75/324/EEC on the approximation of the laws of the Member States relating to aerosol dispensers
Commission Directive 2013/10/EU of 19 March 2013 amending Council Directive 75/324/EEC 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
COMMISSION DIRECTIVE (EU) 2016/2037 of 21 November 2016 amending Council Directive 75/324/EEC as regards the maximum allowable pressure of aerosol dispensers and 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

**15.2 Chemical safety assessment:**

The supplier has not carried out evaluation of chemical safety.

## SECTION 16: OTHER INFORMATION **

**Legislation related to safety data sheets:**

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

**Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:**

COMMISSION REGULATION (EU) 2020/878
COMPOSITION/INFORMATION ON INGREDIENTS (SECTION 3):
· Removed substances
amines, hydrogenated tallow alkyl (61788-45-2)
Substances that contribute to the classification (SECTION 2):
· New declared substances
Hydrocarbons, C6-C7, n-alkanes, isoalkanes, cyclics, <5% n-hexane
CLP Regulation (EC) No 1272/2008 (SECTION 2, SECTION 16):
· Hazard statements
· Precautionary statements

**Texts of the legislative phrases mentioned in section 2:**

H222: Extremely flammable aerosol.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H410: Very toxic to aquatic life with long lasting effects.
H229: Pressurised container: May burst if heated.

**Texts of the legislative phrases mentioned in section 3:**

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

**CLP Regulation (EC) No 1272/2008:**

Acute Tox. 4: H302 - Harmful if swallowed.
Aquatic Acute 1: H400 - Very toxic to aquatic life.
Aquatic Chronic 2: H411 - Toxic to aquatic life with long lasting effects.
Asp. Tox. 1: H304 - May be fatal if swallowed and enters airways.
Flam. Gas 1A: H220 - Extremely flammable gas.
Flam. Liq. 2: H225 - Highly flammable liquid and vapour.
Press. Gas: H280 - Contains gas under pressure, may explode if heated.
Skin Irrit. 2: H315 - Causes skin irritation.
STOT SE 3: H336 - May cause drowsiness or dizziness.

**Classification procedure:**

*** Changes with regards to the previous version*

- CONTINUED ON NEXT PAGE -

## SECTION 16: OTHER INFORMATION ** (continued)

Aerosol 1: Calculation method
Skin Irrit. 2: Calculation method
STOT SE 3: Calculation method
Aquatic Chronic 1: Calculation method
Aerosol 1: Calculation method

**Advice related to training:**

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

**Principal bibliographical sources:**

http://echa.europa.eu
http://eur-lex.europa.eu

**Abbreviations and acronyms:**

ADR: European agreement concerning the international carriage of dangerous goods by road
IMDG: International maritime dangerous goods code
IATA: International Air Transport Association
ICAO: International Civil Aviation Organisation
COD: Chemical Oxygen Demand
BOD5: 5day biochemical oxygen demand
BCF: Bioconcentration factor
LD50: Lethal Dose 50
LC50: Lethal Concentration 50
EC50: Effective concentration 50
LogPOW: Octanolwater partition coefficient
Koc: Partition coefficient of organic carbon
UFI: unique formula identifier
IARC: International Agency for Research on Cancer

*** Changes with regards to the previous version*



- END OF SAFETY DATA SHEET -