

Cold spray ICEMIX

Version 7.00

Date of preparation: 2005.01.05

Updated: 16.12.2022

SAFETY DATA SHEET

Basis: Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 (REACH), as amended, including Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 (REACH)

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

1.1. Product identification

Product name: Cold spray ICEMIX
Inne nazwy: ICEMIX, ICEMIX SPRAY

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

Significant identified uses:

ICEMIX is a medical device. The target group for which it is intended are people actively practicing sports who are exposed to mechanical injuries such as sprains, impacts or bruises. However, the product can be used by all people who have suffered the above injuries during daily physical activity. The intended use of ICEMIX is to relieve pain by instantly lowering body temperature at the site of injury. It allows for further sports activity, preventing the formation of hematomas and bruises. It has a local anesthetic effect using cold therapy on tissues. Cold therapy reduces bleeding in tissues (bruises), limits swelling formation, and alleviates pain caused by these effects.

Uses advised against:

Do not use the product on mucous membranes, abrasions, or open wounds.

1.3. Details of the supplier of the safety data sheet

Supplier: TECWELD Piotr Polak
Postal address: ul. Szmaragdowa 21/3/6
41-943 Piekary Śląskie
Zakład produkcyjny: ul. Krzyżowa 1G, 41-909 Bytom
Phone number: +48 (32) 386-94-28
E-mail address: info@tecweld.pl

1.4. Emergency telephone number

112 or the nearest local Fire Service. Polish National Centre of Toxicology Information, Łódź +48 42 631 47 24..

SEKCJA 2: Hazards identification

2.1. Classification of the substance or mixture.

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

CLP Annex I, Section	Hazard class	Hazard category	Hazard Class and Category Code	Hazard Statement
2.3	Aerosols	Category 1	Aerosol 1	H222, H229

2.2. Label information

Piktogram GHS: GHS02



Signal word:

Danger

Hazard statements.

H222 – Extremely flammable aerosol.

H229 – Pressurised container: May burst if heated.

Precautionary statements – general.

P102 – Keep out of reach of children.

Precautionary statements – prevention:

P210 – Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking..

P211 – Do not spray on an open flame or other ignition source.

P251 – Do not pierce or burn, even after use.

P261 – Avoid breathing dust/fume/gas/mist/vapours/spray.

P271 – Use only outdoors or in a well-ventilated area.

Precautionary statements – storage:

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

Cold spray ICEMIX

Precautionary statements – disposal:

P501 – Dispose of contents/container to an approved waste disposal plant in accordance with local/regional/national/international regulations.

2.3. Other hazards

Does not meet the criteria for PBT or vPvB according to Annex XIII of Regulation (EC) No 1907/2006. Based on available data, no endocrine disrupting properties have been identified. Rapidly expanding mixture causes temperature reduction and may cause thermal damage to skin and eyes. The product may emit vapours that form flammable mixtures with air. Accumulated vapours may ignite and/or explode when exposed to an ignition source. The product has a relatively faint eucalyptus-mint scent. Particular caution should be exercised when using it, as the detection of escaping gas is difficult compared to the characteristic intense smell of commonly used, intentionally odorized propane-butane gas.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Contains:

Substance name	CAS No.	WE No.	Index No.	REACH registration No.	Content, %	Hazard Classification and Category Codes	Pictogram
Butane	106-97-8	203-448-7	601-004-00-0	01-2119474691-32-XXXX	0 - 78	Flam. Gas 1 H220, Press. Gas L H280	
Isobutane	75-28-5	200-857-2	601-004-00-0	01-2119485395-27-XXXX	0 - 78	Flam. Gas 1 H220, Press. Gas L H280	
Propane	74-98-6	200-827-9	601-003-00-5	01-2119486944-21-XXXX	19 - 30	Flam. Gas 1 H220, Press. Gas L H280	
Isopropyl alcohol	67-63-0	200-661-7	603-117-00-0	01-2119457558-25-XXXX	2,0 – 2,3	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336	
Eucalyptus fragrance composition	84625-32-1	283-406-2	---	01-2119978250-37-0001	0,35 - 0,45	Flam. Liq. 3 H226 Asp. Tox. 1 H304 Skin Irrit. 2 H315 Skin Sens. 1 H317 Aquatic Chronic 2 H411	
Mint fragrance composition	90063-97-1	290-058-5	---	01-2119973492-30-0003	0,15 - 0,20	Acute Tox. 4 H302 Asp. Tox. 1 H304 Skin Irrit. 2 H315 Skin Sens. 1 H317 Aquatic Chronic 2 H411	

Additional information:

Full text of H statements in SECTION 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

- **General remarks.** Remove conscious victim, carry unconscious victim from the exposure area, ensure rest, protect from heat loss. If the victim is nauseous or vomiting, position them in a semi-sitting position; if unconscious, in a recovery position. Seek medical advice if any doubts arise concerning the symptoms below or if symptoms persist.
- **Exposure by inhalation.** Remove victim from the exposure area, provide fresh air, rest, and warmth. If the disorder persists, seek medical attention.
- **Exposure by skin contact.** Remove contaminated clothing. In case of irritation, rinse the irritated area with running water and wash with soap. If skin irritation persists, seek medical attention. In case of frostbite, remove contaminated clothing if possible; do not move if it adheres firmly to the skin. Apply a sterile dressing. Provide medical assistance.
- **Exposure by eye contact.** Rinse eye(s) with water for approximately 15 minutes. Avoid a strong stream of water due to the risk of corneal damage. Protect the uninjured eye. Remove contact lenses if possible. If irritation persists, consult an ophthalmologist. In case of frostbite, apply a sterile dressing. Immediately provide medical assistance (ophthalmologist).
- **Exposure by ingestion.** Very unlikely. Rinse mouth with water. Do not induce vomiting. In case of doubt, seek medical advice.

4.2. Most important acute and delayed symptoms and effects of exposure

• After inhalation exposure.

Inhalation of aerosol spray may cause respiratory irritation, fatigue, headache and dizziness, disorientation, shortness of breath, rapid breathing and heart rate, loss of consciousness, convulsions, respiratory and cardiac arrest. At low concentrations, it may cause narcotic effects. At concentrations above 70%, blood pressure drops, leading to loss of consciousness, convulsions, respiratory disorders, and death.

• After skin contact

Redness, irritation, skin inflammation. The rapidly expanding mixture causes temperature reduction and may cause thermal damage to the skin (frostbite).

Cold spray ICEMIX

• After eye contact

Possible redness, tearing, burning, irritation. The rapidly expanding mixture causes temperature reduction and may cause thermal damage to the eyes (frostbite).

• After ingestion

Very unlikely.

4.3 Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Carbon dioxide (CO₂), dry chemical extinguishing agents, fire-fighting foams, sprayed water jet. **Unsuitable**

extinguishing media: Full water jet – risk of fire spreading.

Unsuitable extinguishing media: Full water jet – risk of fire spreading.

5.2 Special hazards arising from the mixture

Dangerous combustion products: During fire, carbon monoxide (CO) and smoke (thermal decomposition products of mixture components) may be released. When heated above 50 °C, aerosol containers may explode and be propelled from the fire with great force. There is a danger of injury from metal fragments, as well as poisoning by decomposition and combustion products of the can's contents, and fire spreading. Carbon oxides are formed during combustion. In case of aerosol container leakage, the propellant gas: propane-butane forms explosive mixtures with air; vapours are heavier than air and accumulate near the ground.

5.3 Advice for firefighters

Do not inhale gases, vapours, and fumes formed as a result of fire. Cool heated cans by spraying water. In case of fire in the vicinity of the product warehouse, immediately remove cans to a safe place away from high temperatures, if necessary, cool with cold water. Personal protective equipment for firefighters: Full protective clothing, self-contained breathing apparatus. Further information: Standard handling involving chemical substances. Do not allow extinguishing water to enter sewers, surface water, and groundwater. Collect contaminated extinguishing water separately. Fire residues and contaminated extinguishing water should be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Evacuate from the danger area to a safe place. Eliminate all possible ignition sources (open flame, sparking installations and tools). Protect products (containers) from heating. Ensure adequate ventilation.

For emergency responders

Use individual protective equipment (see section 8). Rescuers should use a breathing apparatus in case of exposure to vapours/dust/sprayed liquid/gases..

6.2 Environmental precautions

Appropriate steps should be taken to prevent spread into the natural environment. Avoid product entering groundwater, reservoirs, watercourses, and sewerage systems.

6.3 Methods and material for containment and cleaning up

In case of leakage, dike. Collect with inert liquid-absorbing materials (sand, earth, diatomaceous earth). Treat collected material as waste. Use non-sparking tools. Do not flush with water.

6.4. Odniesienia do innych sekcji

Dangerous products formed during combustion: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Waste management: see section 13.

SEKCJA 7: Handling and storage

7.1 Precautions for safe handling

Use only outdoors or in well-ventilated areas. Ensure adequate general and local ventilation. Do not inhale vapours and aerosol mist that the product may form. Do not spray on an open flame or other ignition and heat sources. Protect from sunlight. Do not expose to temperatures exceeding 50°C. Do not pierce or burn, even after use. No smoking. Take precautionary measures against electrostatic discharges. Ground equipment that comes into contact with the product. Do not use near oxidizing and pyrophoric materials. Comply with general occupational hygiene recommendations. Do not eat, drink, or smoke in the workplace. Wash hands after use. Remove contaminated clothing and protective equipment before entering areas designated for eating.

7.2 Conditions for safe storage, including any incompatibilities

Extremely flammable aerosol. Pressurised container: May burst if heated. Store as flammable materials according to relevant regulations in well-ventilated warehouses with a maximum temperature of 50 °C. Protect from sunlight. Do not expose to temperatures exceeding 50°C. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. Smoking, open flames, and sparking tools are prohibited in the warehouse area. Ensure adequate ventilation. Minimum storage temperature -20 °C. Do not store together with oxidizing and pyrophoric materials. Do not store with food.

Cold spray ICEMIX

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Component	CAS No.	NDS mg/m ³	NDSch mg/m ³	NDSP	Notes
Butane	106-97-8	1900	3000	-	-
Propane	74-98-6	1800	-	-	-
Isopropyl alcohol	67-63-0	900	1200	-	Skin)*

)* - The "skin" notation for a substance means that absorption of the substance through the skin can be as significant as exposure by inhalation.
Regulation of the Minister of Family, Labour and Social Policy of 12.06.2018 on the highest permissible concentrations and intensities of harmful agents to health in the work environment (Journal of Laws 2018, item 1286, as amended).
Other exposure limits: DNEL / DMEL and PNEC values: non-carcinogenic, no data.

Information on monitoring procedures:

Regulation of the Minister of Health of 2 February 2011 on the examination and measurement of harmful factors to health in the work environment (Journal of Laws 2011, No. 33, item 166, as amended.).

PN-Z-04252-1:2012 - Polish version. Air purity protection – Testing of liquid gas components – Part 1: Determination of n-butane at workplaces by gas chromatography with sampling to absorption tubes.

PN-Z-04252-2:2012 - Polish version. Air purity protection – Testing of liquid gas components – Part 2: Determination of propane at workplaces by gas chromatography with sampling to absorption tubes..

The employer is obliged to ensure that the personal protective equipment and work clothing and footwear used have protective and functional properties and to ensure their proper washing, maintenance, repair and decontamination.

Recommended initial and periodic medical examinations of employees should be carried out in accordance with the Regulation of the Minister of Health and Social Welfare of 30 May 1996 on conducting medical examinations of employees, the scope of preventive health care for employees and medical certificates issued for purposes provided for in the Labour Code (Journal of Laws 1996 No. 69, item 332, as amended, consolidated text Journal of Laws 2016, item 2067).

8.2 Exposure controls

Appropriate engineering controls

General ventilation and/or local exhaust system.

Individual protection measures, such as personal protective equipment

General recommendations:

No special requirements.

Eye or face protection:

Do not spray into eyes. If necessary, use tightly fitting safety goggles (according to EN 166).

Skin protection:

Work clothing (according to EN 340, EN ISO 13688).

Hand protection:

Protective gloves (recommended according to EN 374-1/-2/-3).

Respiratory protection:

Use outdoors or in a well-ventilated area. In case of insufficient ventilation, use appropriate respiratory protective equipment. For short-term exposure, filtering equipment with a filter type A-P2 (according to EN 14387).

Thermal hazards:

Not specified.

Personal protective equipment used should meet the requirements of Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (Official Journal L 81/51 of 31.03.2016).

Environmental exposure controls

Avoid release to soil, sewage, watercourses.

Note:

The requirements of section 8 under conditions that should be considered average (substance concentration, exposure time, performed activities) apply to professional and properly conducted use of the product (section 1, item 1.2). In case of performing work under other than these conditions, it is recommended to consult an expert regarding the decision on the use of any other personal protective equipment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

- a) Physical state: aerosol (liquid aerosol spray)
- b) Colour: colourless
- c) Odour: characteristic eucalyptus-mint, odour threshold: no data available
- d) Melting point/freezing point:
 - mixture: no data available -)*
 - after release from container: -188 °C (propane), -138 °C (butane)
- e) Boiling point or initial boiling point and boiling range:
 - mixture: no data available -)*

Cold spray ICEMIX

- after release from container: -42 °C (propane), -1 °C (butane)
- f) Flammability: extremely flammable aerosol according to CLP and GHS criteria
- g) Dolna i górna granica wybuchowości:
 - mieszanina brak dostępnych danych -)*
 - po uwolnieniu zawartości pojemnika:
 - dolna 2,1 % obj. (propan), 1,8 % obj. (butan)
 - górną 9,5 % obj. (propan), 8,5 % obj. (butan)
- h) Flash point: not applicable (aerosol) -)*
- after release from container: -95 °C (propane), -60 °C (butane)
- i) Auto-ignition temperature: - mixture: no data available -)* - after release from container: 470 °C (propane), 365 °C (butane)
- j) Decomposition temperature: no data available
- k) pH: no data available
- l) Kinematic viscosity: no data available
- m) Solubility: practically insoluble in water, soluble in most organic solvents
- n) Partition coefficient n-octanol/water: no data available
- o) Vapour pressure: 20 °C 3-6 bar, 50 °C < 12 bar
- p) Density: 20 °C approx. 0.56 g/cm³
- q) Relative vapour density: no data available
- r) Particle characteristics: not applicable
-)* - The product is an aerosol product tightly sealed in an aerosol can under pressure, therefore not all its properties are easily measurable.

9.2 Other information

Heating the product above 50°C may cause the container to rupture, and the released contents pose an explosion hazard.

SECTION 10: Stability and reactivity

10.1 Reactivity

Unknown harmful reactions when used as intended. If recommended conditions are not observed, the product is reactive, contains extremely flammable gas, and may form explosive mixtures with air. See also subsections 10.3 – 10.5.

10.2. Chemical stability

The product is stable under normal conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions occur during storage and use as intended. If recommended conditions are not observed, exothermic reactions with strong oxidizers are possible.

10.4. Conditions to avoid

Ignition sources, heat, sparks, electrostatic discharge, sunlight, corrosive conditions.

10.5. Incompatible materials

Strong oxidizers.

10.6. Hazardous decomposition products

No known hazardous decomposition products. Hazardous combustion products are listed in section 5 of the safety data sheet.

SECTION 11: Toxicological information

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

The mixture as a whole is an aerosol medical device that has been assessed for compliance with the requirements of Council Directive 93/42/EEC concerning medical devices (93/42/EEC, so-called MDD Directive). The assessment, including, among others, the effectiveness and safety of use of the product, was carried out by an independent notified certification body and demonstrated compliance with the requirements of this directive, as evidenced by the issued EC CERTIFICATE.

For propane-butane fraction:

Acute toxicity: LD50 (inhalation, rat) – 1443 mg/dm³

Components do not indicate the need for classification into an acute toxicity hazard class.

Based on available data, classification criteria are not met.

Skin corrosion/irritation

Based on available data, classification criteria are not met. Liquefied propane-butane gas cools rapidly upon expansion and may cause frostbite – skin damage.

Serious eye damage/eye irritation:

Based on available data, classification criteria are not met.

Liquefied propane-butane gas cools rapidly upon expansion and may cause thermal damage to the eyes (frostbite).

Respiratory or skin sensitization

Based on available data, classification criteria are not met.

Germ cell mutagenicity

Based on available data, classification criteria are not met.

Carcinogenicity

Based on available data, classification criteria are not met.

Reproductive toxicity

Based on available data, classification criteria are not met.

Specific target organ toxicity – single exposure

Cold spray ICEMIX

Based on available data, classification criteria are not met.

Specific target organ toxicity – repeated exposure

Based on available data, classification criteria are not met.

Aspiration hazard

Based on available data, classification criteria are not met.

Information on likely routes of exposure

Routes of exposure: skin contact, eye contact, inhalation, and ingestion. For more information on the effects of each possible route of exposure, see subsection 4.2.

Symptoms related to the physical, chemical, and toxicological properties

Due to oxygen displacement from the surrounding air, inhalation exposure may cause drowsiness, shortness of breath, rapid breathing, difficulty breathing, headache and dizziness, rapid heart rate. At high gas concentrations and below 18% oxygen content in the air, disorientation, nausea, vomiting, and loss of consciousness may occur.

Delayed, immediate, and chronic effects from short- and long-term exposure

No data available.

Interactive effects

No data available.

For isopropyl alcohol:

Acute oral toxicity:

LD50 (rat) – 5840 mg/kg, OECD guideline 401

Based on available data, classification criteria are not met.

Acute dermal toxicity:

LD50 (rabbit) – 13900 mg/kg, OECD guideline 402

Based on available data, classification criteria are not met.

Acute inhalation toxicity:

LC50 (rat) – > 25 mg/l, 6 h, OECD guideline 403

Based on available data, classification criteria are not met.

Acute toxicity by other routes of administration:

No data available.

Skin corrosion/irritation:

Based on available data, classification criteria are not met.

Serious eye damage/eye irritation:

Irritating effect.

Respiratory sensitization:

Based on available data, classification criteria are not met.

Skin sensitization:

Not sensitizing (guinea pig), OECD guideline 406

Based on available data, classification criteria are not met.

Germ cell mutagenicity:

Genotoxicity in vitro. Mammalian cell gene mutation test, hamster, OECD guideline 476, negative.

Bacterial gene mutation test in vitro Ames test, OECD guideline 471, negative.

Micronucleus test in vivo, mouse, OECD guideline 474, negative.

Based on available data, classification criteria are not met.

Carcinogenicity:

Based on available data, classification criteria are not met.

Reproductive toxicity:

Based on available data, classification criteria are not met.

Specific target organ toxicity – single exposure:

May cause drowsiness or dizziness.

Specific target organ toxicity – repeated exposure:

Based on available data, classification criteria are not met.

Aspiration hazard:

Based on available data, classification criteria are not met.

Information on likely routes of exposure:

Routes of exposure: skin contact, eye contact, inhalation, and ingestion.

Symptoms related to the physical, chemical, and toxicological properties:

Inhalation: headache, dizziness, impaired consciousness.

Skin contact: degreasing.

Ingestion: nausea, vomiting, abdominal pain, gastrointestinal discomfort.

Ingestion of large quantities: impaired consciousness, difficulty breathing.

Delayed, immediate, and chronic effects from short- and long-term exposure:

Inhalation: at high concentrations, vapours may cause mucous membrane irritation.

Skin contact: prolonged exposure may cause dermatitis.

Eye contact: at high concentrations, vapours may cause eye irritation.

Ingestion: blood pressure drop.

Ingestion of large quantities: coma, death.

Risk of aspiration into the lungs in case of vomiting.

Kidney damage.

Liver damage.

11.2. Information on other hazards

Based on available data, no endocrine disrupting properties have been identified. Other information: No data.

SECTION 12: Ecological information

Cold spray ICEMIX

The mixture as a whole has not been tested for its environmental effects. The data provided refers to the components of the mixture. The classification method of the mixture is based on the components of the mixture (additivity formula). The propane-butane fraction and isopropyl alcohol have been considered.

12.1. Toxicity

Data for propane-butane fraction:

The mixture is not classified as hazardous to the environment.

Data for isopropyl alcohol:

Toxicity to fish – LC50 9640 mg/l, 96 h

Toxicity to daphnia – EC50 10000 mg/l, 48 h

Toxicity to terrestrial plants – IC50 2104 mg/kg, 3 days, Lactuca sativa

Toxicity to algae – EC50 1800 mg/l, 7 days, green algae

12.2. Persistence and degradability

dane dla frakcji propan-butan

Łatwo biodegradowalna. W wyniku reakcji fotochemicznej w powietrzu szybko ulega utlenianiu.

dane dla alkoholu izopropylowego (izopropanolu)

Biochemiczne zapotrzebowanie na tlen 53%, 5 dni. Łatwo biodegradowalny.

12.3. Bioaccumulative potential

Data for propane-butane fraction:

Easily biodegradable. Rapidly oxidized in the air due to photochemical reaction.

Data for isopropyl alcohol (isopropanol):

Biochemical oxygen demand 53%, 5 days. Easily biodegradable.

12.4. Mobility in soil

Propane-butane fraction:

Volatile mixture; if released into the environment, it rapidly disperses in the atmospheric air. Easily moves from soil and water to air.

Isopropanol:

No data available.

12.5. Results of PBT and vPvB assessment

The substance does not meet the criteria for PBT and vPvB according to Annex XIII of REACH regulation.

12.6 Endocrine disrupting properties

Based on available data, no endocrine disrupting properties have been identified.

12.7. Other adverse effects

No data.

SEKCJA 13: Disposal considerations

13.1 Waste treatment methods

Dispose of in accordance with local regulations (2008/98/EC). Waste should be sorted into categories that can be handled separately.

In particular, comply with the following regulations:

Act of 14 December 2012 on waste (Journal of Laws 2013, item 21, as amended).

Act of 13 June 2013 on packaging and packaging waste management (Journal of Laws 2013, item 888, as amended).

Regulation of the Minister of Climate of 2 January 2020 on the waste catalogue (Journal of Laws 2020, item 10).

Regulation of the Minister of Climate of 11 September 2020 on detailed requirements for waste storage (Journal of Laws 2020, No. 1742).

Contaminated packaging should be handled in the same way as the substance itself. The contents of the cans should be completely removed (including propellant gas). Containers that have not been emptied constitute special waste.

Empty packaging should be transferred to a waste disposal site. Completely emptied packaging can be recycled. Do not burn or cut empty cans..

Waste codes according to the waste catalogue:

16 05 04* Gases in pressure containers (including halons) containing hazardous substances

15 01 10* Packaging containing residues of or contaminated by hazardous substances

* - hazardous waste.

15 01 04 Metallic packaging

SECTION 14: Transport information

14.1 UN number or ID number:

Road/rail transport – ADR/RID: UN 1950

Sea transport – IMDG: UN 1950

Air transport – IATA/ICAO: UN 1950

14.2 UN proper shipping name:

Road/rail transport – ADR/RID: AEROSOLS

Sea transport – IMDG: AEROSOLS

Air transport – IATA/ICAO: Aerosols, flammable

14.3 Transport hazard class(es):

Road/rail transport – ADR/RID: Class: 2, subclass 2.1

Sea transport – IMDG: Class 2.1

Air transport – IATA/ICAO: Class 2.1

Cold spray ICEMIX

14.4 Packing group:

Road/rail transport – ADR/RID: not assigned
Sea transport – IMDG: not assigned
Air transport – IATA/ICAO: not assigned

14.5 Environmental hazards:

Does not pose an environmental hazard according to dangerous goods regulations

14.6 Special precautions for user:

Dangerous goods regulations (ADR) must be observed on site

14.7 Maritime transport in bulk according to IMO instruments

According to Annex II of Marpol 73/78 Convention and the IBC Code:
Not applicable

Additional information for each of the UN model regulations).

Transport of dangerous goods by road, rail and inland waterways (ADR/RID/ADN) - Additional information

Classification code: 5F

Hazard label(s): 2.1



Special Provisions (SP): 190, 327, 344, 625

Excepted Quantities (EQ): E0

Limited Quantities (LQ): 1 L

Transport Category (TC): 2

Tunnel Restriction Code (TRC): D

International Maritime Dangerous Goods Code (IMDG) - Additional information

Marine pollutant: -

Hazard label(s): 2.1

Special Provisions (SP): 63, 190, 277, 327, 344, 381, 959

Excepted Quantities (EQ): E0

Limited Quantities (LQ): 1 L

EmS: F-D, S-U

Packing Category: -

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Hazard label(s): 2.1

Special Provisions (SP): A145, A167

Excepted Quantities (EQ): E0

Limited Quantities (LQ): 30 kg

SECTION 15: Regulatory information

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

1. 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 (CLP) (Official Journal of the European Union L335 of 31.12.2008, p. 1, as amended).
2. 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 793/93 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. (Official Journal L396 of 30.12.2006, p. 1, as amended).
3. 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 of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Official Journal of the EU L203/28 of 26.06.2020).
4. Commission Regulation (EC) No 440/2008 of 30 May 2008 laying down test methods pursuant to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (Official Journal of the EU L 142 of 31 May 2010, as amended).
5. Regulation of the Minister of Health of 10 August 2012 on the criteria and method of classification of chemical substances and their mixtures (Journal of Laws 2012 No. 0, item 1018).
6. Act of 25 February 2011 on chemical substances and their mixtures (Journal of Laws 2011 No. 63, item 322, as amended).
7. Regulation of the Minister of Health of 2 February 2011 on testing and measurements of harmful factors in the working environment (Journal of Laws 2011, No. 33, item 166, as amended).
8. Regulation of the Minister of Family, Labour and Social Policy of 12 June 2018 on the maximum permissible concentrations and intensities of harmful factors in the working environment (Journal of Laws 2018, item 1286, as amended).
9. Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives (Official Journal L 312 of 22.11.2008, p. 3, as amended).

Cold spray ICEMIX

10. Act of 14 December 2012 on waste (Journal of Laws 2013 item 21, as amended).
11. Act of 13 June 2013 on packaging management and packaging waste (Journal of Laws 2013 item 888, as amended).
12. Regulation of the Minister of Climate of 2 January 2020 on the waste catalog (Journal of Laws 2020 item 10).
13. Regulation of the Minister of Climate of 11 September 2020 on detailed requirements for waste storage (Journal of Laws 2020 No. 1742).
14. Regulation of the Minister of Health of 30 December 2004 on occupational safety and hygiene related to the presence of chemical agents in the workplace (Journal of Laws 2005 No. 11, item 86).
15. Regulation (EU) 2016/425 of the European Parliament and of the Council of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC (Official Journal L 81/51 of 31.03.2016).
16. Act of 12 December 2003 on general product safety (Journal of Laws 2003 No. 229, item 2275, as amended).
17. ADR/RID – European Agreement concerning the International Carriage of Dangerous Goods by Road/Rail.
18. Council Directive of 20 May 1975 on the approximation of the laws of the Member States relating to aerosol dispensers 75/324/EEC (Official Journal of the EC L147/40 of 09.06.1975, as amended).
19. Regulation of the Minister of Economy of 5 November 2009 on detailed requirements for aerosol products (Journal of Laws 2009 No. 188, item 1460, as amended, consolidated text Journal of Laws 2019 item 975).

15.2 Chemical Safety Assessment

The supplier has not carried out a chemical safety assessment for the mixture.

SECTION 16: Other information

Changes introduced by the update:

Version: 7.00 dated 16.12.2022;

- Adjustment to the requirements of Commission Regulation (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 (REACH).
- Update of legal acts and abbreviations.

Skróty i akronimy

ADR/RID – European Agreement concerning the International Carriage of Dangerous Goods by Road/Rail

CLP – Regulation (EC) No 1272/2008 of the European Parliament and of the Council

DNEL – Derived No-Effect Level

DMEL – Derived Minimal Effect Level

GHS – Globally Harmonized System of Classification and Labelling of Chemicals

ICAO – International Civil Aviation Organization

IMDG – International Maritime Dangerous Goods

IATA – International Air Transport Association

NDS – Highest Permissible Concentration

NDCh – Highest Permissible Short-term Concentration

NDSP – Highest Permissible Ceiling Concentration

PNEC – Predicted No-Effect Concentration

REACH – Regulation (EC) No 1907/2006 of the European Parliament and of the Council

PBT – Persistent, Bioaccumulative and Toxic

vPvB – very Persistent and very Bioaccumulative

Classification and procedure used to classify mixtures according to Regulation (EC) 1272/2008 (CLP)

The classification procedure for the mixture was carried out based on the bridging principles for the classification of mixtures in the absence of test data for complete mixtures (Annex I, section 1.1.3 CLP) and/or additivity rules.

Full text of classifications (CLP/GHS):

Aerosol 1 – Extremely flammable aerosol, category 1

Flam. Gas 1 - Flammable gas, category 1

Press. Gas (Liq.) - Pressurised gas, liquefied

Full text of abbreviated H-phrases:

H220 – Extremely flammable gas

H222 – Extremely flammable aerosol

H229 – Pressurised container: May burst if heated.

H280 – Contains gas under pressure; may explode if heated

Additional information

The above information is based on the current state of knowledge and applies to the product in its intended use. The data regarding this product are presented to meet safety requirements, not to guarantee its specific properties. If the conditions of use of the product are not under the supplier's control, responsibility for the safe use of the product rests with the user. The employer is obliged to inform all employees who come into contact with the product about the hazards and personal protective measures specified in this safety data sheet. This safety data sheet has been prepared on the basis of safety data sheets provided by the manufacturers of the mixture components and/or online databases and applicable legal regulations.