

**SAFETY DATA SHEET**  
**IN ACCORDANCE WITH REGULATION (EC) 1907/2006 (REACH)**  
**Cold starter**

Preparing date: 14 January 2025

Version: 2.

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

**1.1 Product identifier:** Cold starter

UFI: VMJ3-E1UY-2TK1-QE2Y

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

**Identified uses:** Maintenance  
for Consumer, industrial and professional use.

**Uses advised against:** Other than above.

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

**Distributor:** SZAKAL MET-AL Zrt  
2040 Budaörs, Kamaraerdei u 9/C.  
Tel.: +36 23 431-000  
HUNGARY

**Email address for a competent person responsible for the safety data sheet:** kozpont@szakalmetal.hu

**1.4 Emergency telephone number**

Health Toxicology Information Service  
Egészségügyi Toxikológiai Tájékoztató Szolgálat (ETTSZ)  
06-80-201-199 (free charge, 24 hours a day- from Hungary only)  
06-1-476 6464 (Available 0-24 hours for a standard fee - also from abroad)

**SECTION 2: Hazards identification**

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

<b>Aerosols, Category 1</b>	H222 Extremely flammable aerosol. H229 Pressurised container: May burst if heated.
<b>Serious eye damage/eye irritation, Category 2</b>	H319 Causes serious eye irritation.
<b>Specific target organ toxicity — single exposure Category 2</b>	H336 May cause drowsiness or dizziness.

**2.2 Label elements:**

**Dangerous substance(s) to be indicated:** diethyl ether, ethyl methyl ketone.



Expletive Pharma Kft.  
[www.kemiaikockazat.hu](http://www.kemiaikockazat.hu)

**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.

**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 dust/fume/gas/mist/vapours/spray.  
P264 Wash your hands thoroughly after treatment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
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.  
P312 Call a POISON CENTRE/ doctor if you feel unwell.  
P337 + P313 If eye irritation persists: Get medical advice/attention.  
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.  
P405 Store locked up.  
P410 + P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122°F.  
P501 Dispose of contents/ container to as hazardous waste in accordance with local/ regional/national/international regulation.

**Supplemental Hazard Information**

EUH019 May form explosive peroxides.  
EUH066 Repeated exposure may cause skin dryness or cracking.

**2.3 Other hazards:**

Its vapours are heavier than air, can disperse on the surface of the ground and are explosive form explosive gas/air mixtures.

PBT, vPvB assessment: the mixture does not contain PBT or vPvB substances.

Endocrine disrupting properties: No data available.

**SECTION 3: Composition/information on ingredients****3.2 Mixtures**

Chemical name	CAS Number	EK Number	Index Number/ REACH Registration Number	Concentration m/m%	Classification in accordance with Regulation (EC) No 1272/2008
diethyl ether	60-29-7	200-467-2	603-022-00-4/ 01-2119535785-29	<35%	Flam. Liq. 1 H224 Acute Tox. 4 H302 STOT SE 3 H336 EUH019 EUH066
ethyl methyl ketone	78-93-3	201-159-0	606-002-00-3/ 01-2119457290-43- XXXX	<35%	Flam. Liq. 2 H225 Eye Irrit. 2 H319 STOT SE 3 H336 EUH066
<b>Propellant – PB 4.2 T</b>  <b>Contains:</b>				-	Flam. Gas 1A H220 Press Gas H280 (liquefied gas) *
Propane	74-98-6	200-827-9	601-003-00-5/01- 2119486944-21	-	Flam. Gas 1A H220 Press Gas H280 (liquefied gas) *
Butane	106-97-8	203-448-7	601-004-00-0/01- 2119474691-32	-	Flam. Gas 1A H220 Press Gas H280 (liquefied gas) *
Isobutane	75-28-5	200-857-2	601-004-0-0/01- 2119485395-27-0019	-	Flam. Gas 1A H220 Press Gas H280 (liquefied gas) *
1,3-butadiene	106-99-0	203-450-8	601-013-00-X/01- 2119471988-16	-	Flam. Gas 1A H220 Press Gas H280 (liquefied gas) Muta. 1B H340 Carc. 1A H350 *

\* The classification of the material was done by the manufacturer.

For the full text of H-sentences mentioned in this Section, see Section 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures:**

General measures: Fresh air is needed. In case of symptoms, complaints or doubt consult a doctor immediately. In case of sickness, seek medical attention.

Never administer anything by mouth to an unconscious person.

In case of inhalation: When the spray is inhaled, the casualty should be taken to fresh air and placed in a resting position so that he or she can breathe easily.

In case of coughing, difficulty in breathing or feeling unwell, a doctor should be called immediately.

In case of skin contact: Remove contaminated clothing and wash the contaminated skin with soap and plenty of water. In case of complaints or irritation, seek medical advice.

In case of eye contact: Rinse the eyes - for at least 10-15 minutes - with plenty of running water, while pulling the eyelid edges apart and moving the eyeball at the same time.

Remove contact lenses if you have them and if this is easy to do. Continue rinsing. Seek medical advice in case of complaints or irritation.

In case of ingestion: Ingestion is unlikely (aerosol). In case of accidental ingestion or ingestion of the spray, do not vomit, call a doctor immediately. Show data sheet/label.

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

In high concentrations, the propellant gas can be suffocating and cause oxygen starvation.

Inhalation: may cause drowsiness, dizziness.

Skin contact: repeated exposure may cause drying or cracking of the skin.

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

Symptomatic treatment is required. Constant monitoring for the first 48 hours is important.

If possible, show the safety data sheet/label to the doctor.

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media:

Suitable extinguishing media: Water spray, CO<sub>2</sub>, extinguishing powder, extinguishing foam.

Unsuitable inoculant: For safety reasons, do not use a powerful or high-pressure water jet.

Water should only be used to cool the bottles.

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

Extremely flammable aerosol. The container is overpressurised: heat may cause it to crack.

The area must be evacuated. Heating of the closed pressurised cylinder may cause an explosion hazard. The gases may form an explosive mixture with air.

In case of fire, dangerous decomposition products may be formed: CO, CO<sub>2</sub>, peroxides (may form explosive peroxides).

Due to the aerosol formulation, large spillage of the mixture is unlikely.

#### 5.3 Advice for firefighters:

In the event of fire, appropriate fire-resistant protective clothing and the use of isolation respiratory protection independent of the ambient air is required.

The resulting combustion products must not be inhaled.

Leakage must be stopped. Prevent the extinguishing agent from entering drains, living water or the environment.

### SECTION 6: Accidental release measures

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

In the event of fire, appropriate fire-resistant protective clothing and the use of isolation respiratory protection independent of the ambient air is required. The resulting combustion products must not be inhaled. Leakage must be stopped. Prevent the extinguishing agent from entering drains, living water or the environment.

#### 6.2 Environmental precautions:

Do not discharge into the environment, drains, soil, groundwater or living water (extremely flammable aerosol, may cause explosion if released into sewerage systems).

All sources of ignition, open flames must be blocked/removed if this can be done without danger.

In the event of spillage into the environment, water, public sewers, the local competent authorities and operators must be notified immediately.

Release in large quantities is unlikely (aerosol can).

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

Stop the leak if it can be done without risk.

Do not inhale the spray.

The area at risk must be sealed off and no unauthorised persons are allowed to enter. The spillage should be collected with non-combustible absorbent material (e.g. dry earth, sand) and placed in a sealed container until disposal. Product-soaked rags, paper or materials used to clean up spillage may present a fire hazard.

### 6.4 Reference to other sections:

Safe handling: see Section 7.

Personal protective equipment: see Section 8.

Waste treatment, disposal: see Section 13.

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling:

For use outdoors or in a well-ventilated room. Avoid accumulation of spray in air. Keep away from sources of ignition - No smoking.

The prescribed safety and hygiene measures must be observed. Avoid contact with eyes and skin and inhalation of aerosol.

Do not eat or drink during use. Personal protective equipment must be used.

Contaminated clothing must be removed and cleaned before reuse.

Wash hands with soap and running water during breaks and after work.

Fire and explosion protection: highly flammable aerosol. Keep away from heat, hot surfaces, sparks, open flames and other sources of ignition. Smoking is prohibited.

Do not spray on open flames or other sources of ignition. The container is overpressurised: heat may cause it to crack.

May form explosive peroxides. Protect against electrostatic charging, use non-sparking tools. Electrical equipment must comply with the regulations. The product may be used in places where there is no open flame, fire or other source of ignition. Vapours may disperse on the ground surface and an explosive gas/air mixture may be formed.

Pressurised container: do not puncture or burn, even after use.

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

Storage: keep out of the reach of children. Store in a well-ventilated, cool, dry place at a temperature below 35°C.

Bottles may rupture on heating, risk of explosion. Keep away from heat, hot surfaces, sparks, open flame and other sources of ignition. Smoking is prohibited in the storage area.

Protection against electrostatic charging is required.

Electrical equipment must comply with the regulations. Exposure to sunlight, radiant heat or fire, even when empty, is prohibited. Do not expose to temperatures exceeding 50°C. The regulations for pressure cylinders must be observed.

Materials incompatible: strong oxidizing agents, nitrates, halogens. Keep separate from food, beverages and animal feed.

### 7.3 Specific end use(s): Maintenance for consumer, professional and industrial use.

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters:**

Limit values permitted in workplace air (Hungary):

According to Decree No 5/2020 (II. 6.) ITM on the protection of the health and safety of workers exposed to chemical agents, the values of the average concentration and the maximum permissible concentration in the workplace air of dangerous substances and their characteristic properties are:

Substance name	CAS Number	ÁK-value (mg/m <sup>3</sup> )	ÁK-value ppm	CK-value (mg/m <sup>3</sup> )	CK-value ppm	Characteristic property	Reference	ÁK correction group
DIETHYL ETHER	60-29-7	308	100	616	200	b, i, sz	EU1	N
ETHYL METHYL KETONE	78-93-3	600	200	900	300	b, i	EU1	N
n-BUTANE	106-97-8	2350		9400		-	-	N
1,3-BUTADIENE	106-99-0	2,2	1	-		k(1A), i	EU6	T

**N** Irritants, simple asphyxiants, low health hazards substances. Correction is NOT necessary.

**T** Substances that may cause adverse health effects CONSIDERING exposure after exposure. Corrected ÁK = ÁK x 40/a hours per week.

**b** It is also absorbed through the skin.

**i** An irritant that excites the skin, mucous membranes, eyes or all three

**sz** Substance with hypersensitising (sensitising) properties. May cause skin, respiratory or other organ/organ system damage based on "hypersensitivity" in sensitive individuals.

**k(...)** carcinogenic (classification in brackets according to Regulation (EC) No 1272/2008 of the European Parliament and of the Council, CLP Regulation for short)

**EU6** Value published in EU Directive 2019/130

**ÁK-value** Permitted average concentration.

**CK-value** Permitted peak concentration.

**CAS number** Chemical Abstracts Service registration number used to identify chemical substances.

Permissible limit limits for biological exposure and action indicators for occupational chemical exposure in urine

Chemical substance	Biological exposure (effect) indicator	Sampling time	mg/g creatinine	micromoles/mmol creatinine (rounded values)	mg/l	µmol/l
ETHYL METHYL KETONE	ETHYL METHYL KETONE	m.v. (=end of shift)			2	28

**8.2 Exposure controls:**

The usual precautions for handling chemicals, safety rules for pressure cylinders and hygiene regulations must be observed.

Do not eat or drink while working. Smoking is prohibited. Avoid contact with skin and eyes.

Aerosol must not be inhaled.

Contaminated protective clothing must be removed and cleaned before reuse.

Wash hands with soap and running water during breaks in work and after work and before meals. See also sections 6-7.

Technical measures: can be used with adequate ventilation.

Individual precautions, such as personal protective equipment:

Eye/face protection: Well-closed goggles, in case of risk of spray in the eyes.

Hand protection: Protective gloves that do not penetrate the material.

The glove material must be impermeable and resistant to the preparation. The selection of the most appropriate protective gloves can be made according to the specific conditions, taking into account the penetration time, penetration rate and degradation. Wearing time and breakthrough time should be checked with the glove manufacturer and the prescribed time should be adhered to.

Contaminated gloves must be removed and cleaned before reapplication

protection of the respiratory tract: In case of insufficient ventilation (exposure above the exposure limit value), appropriate respiratory protection should be used.

body protection: In the case of regular use, protective clothing should be worn if there is a risk of skin contact.

Environmental exposure controls:

The release of the product and its waste into living water, soil and public sewers must be prevented. Local, national and waste water regulations must be complied with.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties:**

a) Physical State:	Aerosol
b) Colour:	Transparent
c) Odour:	Ether-like
odour threshold	No data available.
d) Melting point/freezing point	No data available.
e) Boiling point or initial boiling point and boiling range	No data available.
f) Flammability	Highly flammable aerosol.
g) Lower and upper explosion limit	No data available.
h) Flash point	No data available.
i) Auto-ignition temperature	No data available.
j) Decomposition temperature	No data available.
k) pH	Not relevant.
l) Kinematic viscosity	No data available.
m) Solubility	semi-soluble with water
n) Partition coefficient n-octanol/water (log value)	No data available.
o) Vapour pressure	No data available.
p) Density and/or relative density	No data available.



- |    |                                |                    |
|----|--------------------------------|--------------------|
| q) | Relative vapour density (20°C) | No data available. |
| r) | Particle characteristics       | No data available. |

## 9.2 Other information:

Explosion hazard: the mixture is not explosive, but explosive gas/air mixtures may occur.

## SECTION 10: Stability and reactivity

- 10.1 Reactivity:** No known reactivity if stored and handled according to specifications.
- 10.2 Chemical stability:** Stable under normal storage and application conditions.
- 10.3 Possibility of hazardous reactions:** It is stable under normal conditions.
- 10.4 Conditions to avoid:** Heat, hot surfaces, open flame, direct sunlight, all ignition sources, sparks. Must be protected against electrostatic charging.
- 10.5 Incompatible materials:** Strong acids, alkalis, oxidizing agents.
- 10.6. Hazardous decomposition products:** No known formation of decomposition products under normal use. In the event of fire, dangerous combustion products may be produced if the combustion is incomplete (section 5).

## 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.
  - **Diethyl ether (CAS: 60-29-7)**
  - LD50/oral/rat: 1211 mg/kg
- Skin corrosion/irritation: Based on available data, the classification criteria are not met.
  - Repeated exposure may cause skin dryness or cracking.
- 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 respiratory irritation. May cause drowsiness or dizziness.
- STOT-repeated exposure: Based on available data, the classification criteria are not met.
- Aspiration hazard: Based on available data, the classification criteria are not met.

### 11.2. Information on other hazards: No data available.

## SECTION 12: Ecological information

### 12.1 Toxicity: No data available for the mixture.

Mixture not classified as environmentally hazardous according to Regulation (EC) No 1272/2008.



- 12.2 Persistence and degradability:** No data are available on the mixture.
- 12.3 Bioaccumulative potential:** No data are available on the mixture.
- 12.4 Mobility in soil:** No data available for the mixture.
- 12.5 Results of PBT and vPvB assessment:** No data available.  
The substances do not meet the criteria for classification as PBT or vPvB.
- 12.6 Endocrine disrupting properties:** No data available.
- 12.7 Other adverse effects:** No data available.  
No discharge into water supply, sewer, soil, groundwater or living water.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods:

The residues of the product can be treated and disposed of in accordance with the provisions of Act CLXXXV of 2012, Government Decree 225/2015 (VIII. 7.) and Decree 72/2013 (VIII.

27.) of the Ministry of Agriculture and Forestry, and in accordance with EU regulations.

Waste disposal method: the disposal of product residues is governed by the relevant regulation see section 15.

Hazardous waste. Not to be treated with municipal waste.

Pressurized container: do not puncture or burn, even after use.

Proposed waste code:

16 05 04\* (hazardous waste stored in pressure containers) gases (including halons) containing dangerous substances contained in pressurised containers.

\* hazardous waste

The waste code depends on the use of the product, use the European Waste Catalogue to determine the code for your waste. The exact waste code should be agreed with the waste disposal company. For more information, contact your local competent authority.

Local regulations should be taken into account.

Packaging: Hazardous waste, do not dispose of packaging material into drains, watercourses or living water. Avoid release of aerosol into the environment.

Pressurised container: do not puncture or burn, even after use.

Do not open, puncture, puncture, expose to temperatures above 50°C, sunlight, radiant heat or throw into a fire, even when empty.

Disposal of the mixture and packaging: according to the regulations for hazardous waste.

### SECTION 14: Transport information

- 14.1 UN number or ID number:** UN 1950
- 14.2 UN proper shipping name:** AEROSOLS, flammable
- 14.3 Transport hazard class(es):**  
**Class:** 2  
**Classification code:** 5F  
**Labels:** 2.1  
**Transport category (Tunnel restriction code):** 2 (D)



**14.4 Packing group: -****ADR/RID, ADN, IMDG, IATA: not applied.****14.5 Environmental hazards:** Non-hazardous to the environment.**14.6 Special precautions for user:** The delivery of the product must be arranged taking into account the information in sections 6 to 8 of the datasheet.**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:****Chemical safety:****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 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**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)**Act No. XXV. of 2000** on Chemical Safety (Hungarian legislation)**Decree No. 44/2000 (XII.27.) EüM** on the detailed rules for certain procedures and activities related to dangerous substances and dangerous preparations (Hungarian legislation)**34/2014. (X. 30.) NGM** Regulation on the marketing requirements for aerosol products and aerosol packaging**Health and safety:****Decree No. 3/2002 (II.08.) SzCsM-EüM** concerning the minimum safety and health requirements of workplaces (Hungarian legislation)**Act No. XCIII. of 1993** on occupational safety (Hungarian legislation)**Decree No. 65/1999 (XII. 22.) EüM** on the minimal safety and health protection requirements regarding the utilization of individual protection tools by workers at the workplaces (Hungarian legislation)**Decree No. 5/2020 (II. 6.) ITM** on the Protection of the Health and Safety of Workers from the Risks Related to Chemical Pathological Factors (Hungarian legislation)**Fire safety:****Decree No. 54/2014 (XII. 5.) BM** on the National Fire Safety Codes (Hungarian legislation)**Act No. XXXI. of 1996** on fire prevention, technical rescue and the fire department (Hungarian legislation)**Waste management:****Act No. CLXXXV. of 2012** on Waste (Hungarian legislation)**Governmental Decree No. 225/2015 (VIII. 7.)** on detailed rules of certain activities related to hazardous waste. (Hungarian legislation)

**Governmental Decree No. 442/2012 (XII. 29.)** on packaging and on waste management activities related to packaging waste (Hungarian legislation)

**Decree No. 72/2013 (VIII. 27.) VM** concerning the list of wastes (Hungarian legislation)

**Transport:**

**Decree No. 61/2013 (X. 17.) NFM** on the domestic application of Annexes A and B to the European Agreement Concerning the International Carriage of Dangerous Goods by Road (ADR), (Hungarian legislation)

**Other:**

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

**15.2 Chemical safety assessment:** The supplier has not carried out a chemical safety assessment.

**SECTION 16: Other information**

- a) This document is the translation of the Hungarian safety data sheet of the product dated 11.12.2024 (version 11). A modification has been made to subsection 3.2 of the safety data sheet, which has resulted in all sections of the safety data sheet being amended.
- b) Abbreviations used in the data sheet:
  - CAS number: CAS number is the Chemical Abstracts Service registration number used to identify chemicals (chemical elements, compounds).
  - PBT: Persistent, bioaccumulative and toxic
  - vPvB: Very persistent and very bioaccumulative
  - LD50: Lethal dose in 50% of the studied population (medium lethal dose)
  - LC50: Lethal concentration in 50% of the studied population
  - ADR: European Agreement on the international carriage of dangerous goods by road
  - IMO: International Maritime Organization
  - RID: Rules on the international carriage of dangerous goods by rail
  - ICAO: International Civil Aviation Organisation
- c) The hazard classification was carried out by the supplier according to Regulation (EC) No 1272/2008, based on a test method (test data - aerosols category 1) and a calculation method.
- d) List of relevant hazard (H) statements which are not written out in full under Sections 3:
  - H220 Extremely flammable gas.
  - H224 Extremely flammable liquid and vapour.
  - H225 Highly flammable liquid and vapour.
  - H226 Flammable liquid and vapour
  - H302 Harmful if swallowed.
  - H319 Causes serious eye irritation.
  - H336 May cause drowsiness or dizziness.
  - H411 Toxic to aquatic life with long lasting effects.
  - EUH019 May form explosive peroxides.
  - EUH066 Repeated exposure may cause skin dryness or cracking.
- e) Press Gas Pressurised gases.
  - Flam. Gas Flammable gases.
  - Flam. Liq. Flammable liquids.
  - Skin Irrit. Skin irritation.

Eye Irrit. Eye irritation.  
Acute Tox. Acute Toxicity.  
Asp. Tox. Aspiration hazard.

The safety data sheet has been prepared in accordance with the applicable EU and Hungarian legislation in force. It is limited to our current knowledge, does not guarantee the properties of the product and does not form the basis of any legal relationship.