

**FREEZER**

Creation date	17th July 2024	Version	3.1
Revision date			

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

- 1.1. Product identifier** FREEZER  
Substance / mixture mixture  
Number R 34036  
UFI 2581-P30W-000V-7N39
- 1.2. Relevant identified uses of the substance or mixture and uses advised against**  
**Mixture's intended use**  
Refrigerant. For professional use only.  
**Main intended use**  
PC-TEC-OTH Other products for chemical or technical processes  
**Mixture uses advised against**  
The product should not be used in ways other than those referred in Section 1.
- 1.3. Details of the supplier of the safety data sheet**  
**Supplier**  
Name or trade name RETECH, s.r.o.  
Address Vackova 1541/4, Praha 5 - Stodůlky, 155 00  
Czech Republic  
Identification number (CRN) 25018205  
VAT Reg No CZ25018205  
Phone +420327596428  
E-mail info@retech.cz  
Web address www.retech.com
- Competent person responsible for the safety data sheet**  
Name RETECH, s.r.o.  
E-mail info@retech.cz
- 1.4. Emergency telephone number**  
European emergency number: 112

**SECTION 2: Hazards identification**

- 2.1. Classification of the substance or mixture**  
**Classification of the mixture in accordance with Regulation (EC) No 1272/2008**

The mixture is classified as dangerous.

Aerosol 1, H229, H222

**Most serious adverse physico-chemical effects**

Pressurised container: May burst if heated. Extremely flammable aerosol.

- 2.2. Label elements**

**Hazard pictogram****Signal word**

Danger

**Hazard statements**

H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.

**Precautionary statements**

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 mist/vapours/spray.

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according to Regulation (EC) No 1907/2006 (REACH) as amended

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- P271 Use only outdoors or in a well-ventilated area.  
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P403 Store in a well-ventilated place.  
P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

### 2.3. Other hazards

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605. Mixture does not contain any substance meet the criteria for PBT or vPvB in accordance with Annex XIII of Regulation (EC) No. 1907/2006 (REACH) as amended.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Chemical characterization

Mixture of substances and additives specified below.

**Mixture contains these hazardous substances and substances with the highest permissible concentration in the working environment**

Identification numbers	Substance name	Content in % weight	Classification according to Regulation (EC) No 1272/2008	Note
CAS: 115-10-6 EC: 204-065-8 Registration number: 01-2119472128-37	dimethyl ether	75-<100	Flam. Gas 1A, H220 Press. Gas (liquefied gas), H280	1
CAS: 106-97-8 EC: 203-448-7 Registration number: 01-2119474691-32	butane (containing < 0,1 % butadiene (203-450-8))	10-<25	Flam. Gas 1A, H220 Press. Gas (compressed gas), H280	
CAS: 74-98-6 EC: 200-827-9 Registration number: 01-2119486944-21	propane	2,5-<10	Flam. Gas 1A, H220 Press. Gas (compressed gas), H280	
CAS: 75-28-5 EC: 200-857-2 Registration number: 01-2119485395-27	isobutane	1-<2,5	Flam. Gas 1A, H220 Press. Gas (compressed gas), H280	

#### Notes

1 A substance for which exposure limits are set.

Full text of all classifications and hazard statements is given in the section 16.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

If any health problems are manifested or if in doubt, inform a doctor and show him information from this safety data sheet.

#### If inhaled

Terminate the exposure immediately; move the affected person to fresh air. In the event of issues, find medical advice.

#### If on skin

Generally the product does not irritate the skin.

#### If in eyes

Rinse eyes immediately with a flow of running water, open the eyelids (also using force if needed); remove contact lenses immediately if worn by the affected person. In the event of issues, find medical advice.

#### If swallowed

DO NOT INDUCE VOMITING! Provide medical treatment.

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**4.2. Most important symptoms and effects, both acute and delayed****If inhaled**

not available

**If on skin**

not available

**If in eyes**

not available

**If swallowed**

not available

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

not available

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Alcohol-resistant foam, carbon dioxide, powder, water mist.

**Unsuitable extinguishing media**

Water - full jet.

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

not available

**5.3. Advice for firefighters**

Use a self-contained breathing apparatus and full-body protective clothing.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Provide sufficient ventilation. Use personal protective equipment for work. Keep unprotected persons away.

**6.2. Environmental precautions**

Do not allow product to reach sewage system or any water course. Inform respective authorities in case of seepage into water course or sewage system.

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

Provide sufficient ventilation. Do not flush with water or aqueous cleansing agents.

**6.4. Reference to other sections**

See the Section 7, 8 and 13.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care. Do not spray on an open flame or other ignition source. The product should be used only in the areas where it is not in contact with open fire and other ignition sources. No smoking. Take precautionary measures against static discharge. Pressurised container: May burst if heated. Keep away from sources of heating, ignition and direct sunlight. Do not pierce or burn, even after use.

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

Store in tightly closed containers in cold, dry and well ventilated areas designated for this purpose. Protect from sunlight. Do not expose to temperatures exceeding 50 °C.

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

not available

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

The mixture contains substances for which occupational exposure limits are set.

**European Union****Commission Directive 2000/39/EC**

Substance name (component)	Type	Value
dimethyl ether (CAS: 115-10-6)	OEL 8 hours	1920 mg/m <sup>3</sup>

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### European Union

### Commission Directive 2000/39/EC

Substance name (component)	Type	Value
dimethyl ether (CAS: 115-10-6)	OEL 8 hours	1000 ppm

### 8.2. Exposure controls

Follow the usual measures intended for health protection at work and especially for good ventilation. Wash your hands thoroughly with water and soap after work and before breaks for a meal and rest.

#### Eye/face protection

Tightly sealed goggles.

#### Skin protection

Hand protection: Protective gloves resistant to the product. Material of gloves: Nitrile rubber, NBR. Recommended thickness of the material:  $\geq 0.5$  mm. Penetration time of glove material:  $\geq 480$  min. When choosing appropriate thickness, material and permeability of the gloves, observe recommendations of their particular manufacturer. Observe other recommendations of the manufacturer. Other protection: protective workwear and footwear.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection. Filter A2/P2.

#### Thermal hazard

Not available.

#### Environmental exposure controls

Observe usual measures for protection of the environment, see Section 6.2.

## SECTION 9: Physical and chemical properties

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

Physical state	liquid
Colour	colourless
Odour	characteristic
Melting point/freezing point	data not available
Boiling point or initial boiling point and boiling range	-44.5 °C
Flammability	Extremely flammable aerosol.
Lower and upper explosion limit	
bottom	1.7 %
butane (containing < 0,1 % butadiene (203-450-8))	1.5 %
(CAS: 106-97-8)	
upper	18.6 %
Flash point	-97 °C
Auto-ignition temperature	data not available
butane (containing < 0,1 % butadiene (203-450-8))	365 °C
(CAS: 106-97-8)	
Decomposition temperature	data not available
pH	data not available
Kinematic viscosity	data not available
Solubility in water	almost insoluble
Solubility in fats	data not available
Partition coefficient n-octanol/water (log value)	data not available
Vapour pressure	8300 hPa at 20 °C
Density and/or relative density	
Density	0.63 g/cm <sup>3</sup> at 20 °C
Relative vapour density	data not available
Particle characteristics	data not available
Form	spray
data not available	

### 9.2. Other information

Evaporation rate	data not available
Ignition temperature	235 °C

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Explosive properties

The product does not have explosive properties but can be explosive when blended with air.

Content of organic solvents (VOC)

100 %

Max. VOC content in the product in its ready to use condition

630.0 g/l

Product is not selfigniting.

**SECTION 10: Stability and reactivity****10.1. Reactivity**

not available

**10.2. Chemical stability**

The product is stable and no degradation occurs under normal use.

**10.3. Possibility of hazardous reactions**

Unknown.

**10.4. Conditions to avoid**

not available

**10.5. Incompatible materials**

not available

**10.6. Hazardous decomposition products**

Unknown.

**SECTION 11: Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**

No toxicological data is available for the mixture.

**Acute toxicity**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**Skin corrosion/irritation**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**Serious eye damage/irritation**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**Respiratory or skin sensitisation**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**Germ cell mutagenicity**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**Carcinogenicity**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**Reproductive toxicity**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

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**Toxicity for specific target organ - single exposure**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**Toxicity for specific target organ - repeated exposure**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**Aspiration hazard**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**11.2. Information on other hazards**

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

**SECTION 12: Ecological information****12.1. Toxicity**

No data are available for either the mixture or the components. Based on the available data, the criteria for classification of the mixture are not met.

**12.2. Persistence and degradability**

The product is not easily biodegradable.

**12.3. Bioaccumulative potential**

No data are available for either the mixture or the components.

**12.4. Mobility in soil**

No data are available for either the mixture or the components.

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

Product does not contain any substance meeting the criteria for PBT or vPvB in accordance with the Annex XIII of Regulation (EC) No 1907/2006 (REACH) as amended.

**12.6. Endocrine disrupting properties**

The mixture does not contain substances with endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

**12.7. Other adverse effects**

Water hazard class 1 (German Regulation, self-assessment): slightly hazardous for water. Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods**

Proceed in accordance with valid regulations on waste disposal. Any unused product and contaminated packaging should be put in labelled containers for waste collection and submitted for disposal to a person authorised for waste removal (a specialized company) that is entitled for such activity. Do not empty unused product in drainage systems. The product must not be disposed of with municipal waste.

HP3 "Flammable".

**Waste management legislation**

Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste, as amended. Decision 2000/532/EC establishing a list of wastes, as amended.

**Waste type code**

16 03 05\* organic wastes containing hazardous substances

**Packaging waste type code**

15 01 11\* metallic packaging containing a hazardous solid porous matrix (for example asbestos), including empty pressure containers

(\*) - Hazardous waste according to Directive 2008/98/EC on hazardous waste

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### SECTION 14: Transport information

#### 14.1. UN number or ID number

UN 1950

#### 14.2. UN proper shipping name

AEROSOLS

#### 14.3. Transport hazard class(es)

2 Gases

#### 14.4. Packing group

not relevant

#### 14.5. Environmental hazards

No

#### 14.6. Special precautions for user

Reference in the Sections 4 to 8.

#### 14.7. Maritime transport in bulk according to IMO instruments

not relevant

#### Additional information

Stowage Code:

SW1 Protected from sources of heat.

SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.

Segregation Code:

SG69 For AEROSOLS with a maximum capacity of 1 litre:

Segregation as for class 9. Stow "separated from" class 1 except for division 1.4.

For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2.

For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.

Hazard identification No.

UN number

Classification code

Safety signs



5F

2.1



#### Road transport - ADR

Limited quantities

1L

Excepted quantities

E0

Tunnel restriction code

(D)

#### Railway transport - RID

#### Marine transport - IMDG

EmS (emergency plan)

F-D, S-U

### SECTION 15: Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulation (EC) No. 1907/2006 of the European Parliament and of the Council of 18th December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing the 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, as amended. REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. 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).

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### 15.2. Chemical safety assessment

A chemical safety assessment has not been carried out.

#### More information

Directive 2012/18/EU of the European parliament and of the Council - ANNEX I - Hazard categories: P3a FLAMMABLE AEROSOLS.

Qualifying quantity (tonnes) of dangerous substances for the application - of lower-tier requirements: 150 (net).

Qualifying quantity (tonnes) of dangerous substances for the application of - upper-tier requirements: 500 (net).

### SECTION 16: Other information

#### A list of standard risk phrases used in the safety data sheet

H220	Extremely flammable gas.
H222	Extremely flammable aerosol.
H229	Pressurised container: May burst if heated.
H280	Contains gas under pressure; may explode if heated.

#### Guidelines for safe handling used in the safety data sheet

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 mist/vapours/spray.
P271	Use only outdoors or in a well-ventilated area.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P403	Store in a well-ventilated place.
P410+P412	Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

#### Other important information about human health protection

The product must not be - unless specifically approved by the manufacturer/importer - used for purposes other than as per the Section 1. The user is responsible for adherence to all related health protection regulations.

#### Key to abbreviations and acronyms used in the safety data sheet

ADR	European agreement concerning the international carriage of dangerous goods by road
BCF	Bioconcentration Factor
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substance and mixtures
EC	Identification code for each substance listed in EINECS
EINECS	European Inventory of Existing Commercial Chemical Substances
EmS	Emergency plan
EU	European Union
EuPCS	European Product Categorisation System
IATA	International Air Transport Association
IBC	International Code For The Construction And Equipment of Ships Carrying Dangerous Chemicals
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
IMO	International Maritime Organization
INCI	International Nomenclature of Cosmetic Ingredients
ISO	International Organization for Standardization
IUPAC	International Union of Pure and Applied Chemistry
log Kow	Octanol-water partition coefficient
OEL	Occupational Exposure Limits
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Agreement on the transport of dangerous goods by rail
UN	Four-figure identification number of the substance or article taken from the UN Model Regulations



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UVCB	Substances of unknown or variable composition, complex reaction products or biological materials
VOC	Volatile organic compounds
vPvB	Very Persistent and very Bioaccumulative
Aerosol	Aerosol
Flam. Gas	Flammable gas
Press. Gas	Gases under pressure

**Training guidelines**

Inform the personnel about the recommended ways of use, mandatory protective equipment, first aid and prohibited ways of handling the product.

**Recommended restrictions of use**

not available

**Information about data sources used to compile the Safety Data Sheet**

REGULATION (EC) No. 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL (REACH) as amended.  
REGULATION (EC) No. 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL as amended. Data from the manufacturer of the substance / mixture, if available - information from registration dossiers.

**The changes (which information has been added, deleted or modified)**

The version 3.1 replaces the SDS version from 21 July 2022. Changes were made in sections 1, 2, 8, 12, 13, 15 and 16.

**Statement**

The safety data sheet provides information aimed at ensuring safety and health protection at work and environmental protection. The provided information corresponds to the current status of knowledge and experience and complies with valid legal regulations. The information should not be understood as guaranteeing the suitability and usability of the product for a particular application.