

CO2 cartridges for extinguishers

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

1.1 - Product identifier

Trade name/designation
CO2 cartridges for extinguishers

Chemical name

Product-type Substance

Product code N° de fiche :

Index No. EC No.

REACH No. exempté 204-696-9 CAS No. 124-38-9

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

Relevant identified uses - CO2 cartridges for extinguishers

Uses advised against - Refer to the instructions on the unit.

1.3 - Details of the supplier of the safety data sheet

USINES DESAUTEL

5 Boulevard du Maréchal de Lattre de Tassigny

69330 Meyzieu

Telephone : 04.72.45.06.06 Fax 04.72.02.73.95 Website <https://www.desautel.fr>

sécurité Contact: 04.72.45.06.06 info.meyzieu@desautel.fr

1.4 - Emergency telephone number

- ORFILA (INRS) + 33 (0)1 45 42 59 59 France

SECTION 2: Hazards identification

2.1 - Classification of the substance or mixture

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

Gaz liquéfié	Liquefied gas
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2.2 - Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Signal word : Warning

Hazard pictograms



Hazard statements

H280	Contains gas under pressure; may explode if heated
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Precautionary statements

CO2 cartridges for extinguishers

P410+P403 Protect from sunlight. Store in a well-ventilated place.

EUH-phrases : None

2.3 - Other hazards

PBT-substance. - The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

vPvB-substance. - The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

Other hazards which do not result in classification - No information available.

SECTION 3: Composition / information on ingredients

- not applicable

3.1 - Substances

- not applicable

Chemical name	No	%	Class	Spec. concentrations
carbon dioxide	CAS No. : 124-38-9 Index No. : EC No. : 204-696-9	100	Gaz liquéfié - H280	Not applicable

3.2 - Mixtures

Not applicable

SECTION 4: First aid measures

4.1 - Description of first aid measures

CO2 cartridges for extinguishers

Following inhalation

- Provide fresh air.
- Put victim at rest, cover with a blanket and keep warm.
- Seek medical advice immediately.

Following skin contact

- In case of frostbite, wash with plenty of water; do not remove clothing.
- Wash immediately with: Water
- When in doubt or if symptoms are observed, get medical advice.

After eye contact

- Rinse immediately carefully and thoroughly with eye-bath or water.
- In case of eye irritation consult an ophthalmologist.

After ingestion

- Rinse mouth thoroughly with water.
- Do NOT induce vomiting.

4.2 - Most important symptoms and effects, both acute and delayed

Symptoms and effects - Following inhalation

- In high concentration the gas may cause a suffocation. Victim may not be aware of asphyxiation.

Symptoms and effects - Following skin contact

- No information available.

Symptoms and effects - After eye contact

- No information available.

Symptoms and effects - After ingestion

- No information available.

4.3 - Indication of any immediate medical attention and special treatment needed

- No information available.

SECTION 5: Firefighting measures

5.1 - Extinguishing media

Suitable extinguishing media

- Water spray

Unsuitable extinguishing media

- Full water jet

5.2 - Special hazards arising from the substance or mixture

Special hazards arising from the substance or mixture

- Pressurised container: May burst if heated.

Hazardous decomposition products

- No information available.

5.3 - Advice for firefighters

CO2 cartridges for extinguishers

- Co-ordinate fire-fighting measures to the fire surroundings.
- Move containers away from the fire area, if this can be done without risk. Use extinguishing media appropriate to the surrounding fire. Exposure to fire and heat can cause the gas containers to rupture. Cool exposed containers with water sprayed from a protected area. Do not allow water to drain into the gutters used in emergencies. If possible, stop the gas flow. Use spray or cloud water to lower the fumes to the ground if possible
- In case of fire: Wear self-contained breathing apparatus.
- Wear a self-contained breathing apparatus and chemical protective clothing.
- Container device with compressed air (DIN EN 137)
- Norm EN 469: protective clothing for firefighters. Norm EN 659: Protective gloves for firefighters

SECTION 6: Accidental release measures

6.1 - Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

- Use personal protection equipment.
- Provide adequate ventilation.
- Try to stop the leak.
- Remove persons to safety.
- Wear breathing apparatus if exposed to vapours/dusts/aerosols.
- Do not allow run-off from fire-fighting to enter drains or watercourses.
- Act according to the local emergency plan.

For emergency responders

- No information available.

6.2 - Environmental precautions

- In case of fire: Stop leak if safe to do so.

6.3 - Methods and material for containment and cleaning up

Methods and material for containment

- Ventilate affected area.

Methods and material for cleaning up

- Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).
- Wash with plenty of water.

Inappropriate techniques

- No information available.

6.4 - Reference to other sections

CO2 cartridges for extinguishers

- Disposal: see section 13
- Personal protection equipment: see section 8

SECTION 7: Handling and storage

7.1 - Precautions for safe handling

Recommendation

- The fire extinguisher is a pressure vessel that must only be opened by qualified personnel.
- Maintenance operations must be performed by qualified and entitled personnel.
- Before dismantling the unit, always check the absence of internal pressure, do not position your head above the fire extinguisher. Recover the used fire extinguishing charge for destruction by an approved die.
- Spare parts used in maintenance must conform to the certified model.

Advices on general occupational hygiene

- Used working clothes should not be worn outside the work area.
- When using do not eat, drink, smoke, sniff.
- Wash hands before breaks and after work.

7.2 - Conditions for safe storage, including any incompatibilities

- Store in a place accessible by authorized persons only.

7.3 - Specific end use(s)

- Fire extinguishing agent

SECTION 8: Exposure controls/personal protection

8.1 - Control parameters

8.2 - Exposure controls

Appropriate engineering controls

- No information available.

CO2 cartridges for extinguishers

Individual protection measures, such as personal protective equipment

- Consumer uses: Private households (= general public = consumers)
- No special measures are necessary.
- According to experience this refers to the following tasks: Maintenance and service
- Protective gloves



- Eye protection



Environmental exposure controls - Further information: see technical data sheet.

SECTION 9: Physical and chemical properties

9.1 - Information on basic physical and chemical properties

<u>Physical state</u>	Solid	<u>Appearance</u>	liquefied gas
<u>Colour</u>	colourless	<u>Odour</u>	odourless
Odour threshold		No data available	
pH		not applicable	
Melting point		-78,5 °C	
Freezing point		No data available	
Boiling point		-56,6 °C not determined	
Flash point		not applicable	
Evaporation rate		No data available	
flammability		No data available	
Lower explosion limit		No data available	
Upper explosion limit		No data available	
Vapour pressure		57,3 bar	
Vapour density		1,52	
Relative density		0,82	
Density		No data available	

CO2 cartridges for extinguishers

Solubility (Water)	No data available
Solubility (Ethanol)	No data available
Solubility (Acetone)	No data available
Solubility (Organic solvents)	No data available
Log KOC	0,83
Auto-ignition temperature	No data available
Decomposition temperature	No data available
Kinematic viscosity	No data available
Dynamic viscosity	No data available
9.2 - Other information	
VOC content	not determined
Minimum ignition energy	not determined
Conductivity	not determined

SECTION 10: Stability and reactivity

10.1 - Reactivity

- This material is considered to be non-reactive under normal use conditions.

10.2 - Chemical stability

- The product is chemically stable under recommended conditions of storage, use and temperature.

10.3 - Possibility of hazardous reactions

- No hazardous reaction when handled and stored according to provisions.

10.4 - Conditions to avoid

- No information available.

10.5 - Incompatible materials

- No information available.

10.6 - Hazardous decomposition products

- Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1 - Information on toxicological effects

Acute toxicity

- Not classified

LD50 oral (rat)	No data available
LD50 dermal (rat)	No data available
LD50 dermal (rabbit)	No data available
LC50 inhalation (rat)	No data available
LC50 inhalation dusts and mists (rat)	No data available
LC50 inhalation vapours (rat)	No data available

CO2 cartridges for extinguishers

- In high concentrations, quickly causes circulatory failure. Symptoms are headaches, nausea and vomiting, which can lead to unconsciousness. Unlike only asphyxiating substances, carbon dioxide can cause death, even when the oxygen content is normal (20-21%). It has been found that at a content of 5%, CO2 can lead to an increase in the toxicity of other gases (CO, NO2). It has been shown that CO2 increases carboxy hemoglobin production or binds to hemoglobin, probably due to CO2 stimulating effects on the respiratory system and in the circulatory system.

Skin corrosion/irritation - Not classified

Serious eye damage/eye irritation - Not classified

Respiratory or skin sensitisation - Not classified

Germ cell mutagenicity - Not classified

Carcinogenicity - Not classified

Reproductive toxicity - Not classified

STOT-single exposure - Not classified

STOT-repeated exposure - Not classified

Aspiration hazard - Not classified

SECTION 12: Ecological information

12.1 - Toxicity

EC50 48 hr crustacea	No data available
LC50 96 hr fish	No data available
ErC50 algae	No data available
ErC50 other aquatic plants	No data available
NOEC chronic fish	No data available
NOEC chronic crustacea	No data available
NOEC chronic algae	No data available
NOEC chronic other aquatic plants	No data available

CO2 cartridges for extinguishers

- The substance/mixture does not fulfill the criteria of the acute aquatic toxicity according to Regulation (EC) No1272/2008 [CLP], Annex I.

12.2 - Persistence and degradability

Biochemical oxygen demand (BOD)	No data available
Chemical oxygen demand (COD)	No data available
% of biodegradation in 28 days	No data available

- No information available.

12.3 - Bioaccumulative potential

Bioconcentration factor (BCF)	No data available
Log KOC	0,83

- No indication of bioaccumulation potential.

12.4 - Mobility in soil

- No information available.

12.5 - Results of PBT and vPvB assessment

- The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

- The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 - Other adverse effects

- Contains one or more greenhouse gases, not subject to Regulation (EC) 842/2006 May contribute to the greenhouse effect when discharged in large quantities

SECTION 13: Disposal considerations

13.1 - Waste treatment methods

<u>Waste treatment methods</u>	- Dispose of waste according to applicable legislation.
	- 16 05 05 :
	- gases in pressure containers other than those mentioned in 16 05 04
<u>Sewage disposal</u>	- Do not allow run-off from fire-fighting to enter drains or watercourses.
	- Do not allow to enter into surface water or drains.

Special precautions for waste treatment - Recover the used fire extinguishing charge for destruction by an approved die.

Community or national or regional provisions - Dispose according to legislation.

SECTION 14: Transport information

14.1 - UN number

CO2 cartridges for extinguishers

UN number (ADR) : UN1013

UN number (IMDG) : UN1013

UN number (IATA) : UN1013

14.2 - UN proper shipping name

UN proper shipping name (ADR) : CARBON DIOXIDE (carbon dioxide)

UN proper shipping name (IMDG) : CARBON DIOXIDE (carbon dioxide)

UN proper shipping name (IATA) : CARBON DIOXIDE (carbon dioxide)

14.3 - Transport hazard class(es)

ADR Transport hazard class(es) : 2

ADR Classification code: : 2A

Pictograms



Transport hazard class(es) (IMDG) : 2

Pictograms



Transport hazard class(es) (IATA) : 2

Pictograms



14.4 - Packing group

Packing group :

Packing group (IMDG) :

Packing group (IATA) :

CO2 cartridges for extinguishers

14.5 - Environmental hazards

Environmental hazards : No

Marine pollutant : No

14.6 - Special precautions for user

ADR

ADR Classification code: : 2A

ADR Special provisions : 584+653+662

ADR Limited quantity (LQ) : 120 ml

ADR Excepted quantities : E1

ADR Packing instructions : P200

ADR Special packing provisions :

ADR Mixed packing provisions : MP9

Instructions for portable tanks and bulk containers : (M)

Special provisions for portable tanks and bulk containers :

ADR tank code : PxBN (M)

ADR tanks special provisions : TA4 TM6 TT9

Vehicle for tank carriage : AT

ADR Transport category : 3

ADR Tunnel restriction code : C/E

ADR Special provisions loading, unloading and handling : CV9 CV10 CV36

Special provisions - Packages :

Special provisions - Bulk :

Special provisions - Operation :

ADR Hazard identification number (Kemler No.) : 20

IMDG

Special provisions :

Limited quantity (LQ) :

Excepted quantities :

Packing instructions : P200

Special packing provisions :

IBC instruction(s) :

CO2 cartridges for extinguishers

<u>IBC provisions</u>	:	
<u>Instructions for portable tanks and bulk containers</u>	:	
<u>Special provisions for portable tanks and bulk containers</u>	:	
<u>EmS codes</u>	:	F-C,S-V
<u>Stowage and handling</u>	:	Catégorie A
<u>Segregation</u>	:	
<u>Properties and observations</u>	:	gases compressed or liquefied under a pressure greater than 175 kPa, intended to expel the extinguishing contents.
<u>IATA</u>		
<u>PCA - Excepted quantities</u>	:	
<u>PCA - Limited Quantity - Packing Instructions</u>	:	
<u>PCA - Limited Quantity - Maximum Net Quantity per Package</u>	:	
<u>PCA - Packing Instructions</u>	:	200
<u>PCA - Maximum Net Quantity per Package</u>	:	
<u>CAO - Packing Instructions</u>	:	200
<u>CAO - Maximum Net Quantity per Package</u>	:	
<u>Special Provisions</u>	:	
<u>ERG Code</u>	:	
14.7 - Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code		
- Not applicable		

SECTION 15: Regulatory information

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

<u>Substances REACH candidates</u>	None
<u>Substances Annex XIV</u>	None
<u>Substances Annex XVII</u>	None
<u>VOC content</u>	No data available

15.2 - Chemical Safety Assessment

Chemical safety assessment carried out for the product - No information available.

SECTION 16: Other information

SDS versions

Version	Issue date	Description of the amendments
2	23/05/2023	

CO2 cartridges for extinguishers

Data sources:

Supplier

[Http://echa.europa.eu/](http://echa.europa.eu/)

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Texts of the regulatory sentences

Gaz liquéfié	Liquefied gas
H280	Contains gas under pressure; may explode if heated

Training advice

- Observe technical data sheet.

According to Regulation (EC) No. 2015/830

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

Observe technical data sheet.

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