



## Inergen

Version number: 1

Issued: 2023-03-13

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

#### 1.1. Product identifier

#### Trade name

Inergen

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

#### Relevant identified uses

Fire extinguishers.

#### 1.3. Details of the supplier of the safety data sheet

#### Supplier

Presto Brandsäkerhet AB

Street address

Värmbolsvägen 2, Box 315

64123 KATRINEHOLM

Sweden

Telephone

+46 (0)10-45 20 000

Email

info@presto.se

#### 1.4. Emergency telephone number

**NHS 111** 

### Available outside office hours

Yes

#### **SECTION 2: Hazards identification**

## 2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008

#### Classification

Gases under pressure, Compressed gas

## **Hazard statements**

H280

## **Description**

For the complete meaning of H phrases mentioned in this section, see section 16.





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#### 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008

## **Hazard pictograms**



#### Signal word

Warning

#### **Hazard statements**

H280 Contains gas under pressure; may explode if heated.

#### **Precautionary statements**

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

#### 2.3. Other hazards

The product does not meet the PBT and vPvB criteria of REACH regulation, Annex XIII.

The product does not contain any substances with endocrine disrupting properties.

Risk of frostbites from direct contact with liquid gas. High concentrations can displace the normal air and cause suffocation from lack of oxygen.

## **SECTION 3: Composition/information on ingredients**

#### 3.2. Mixtures

Chemical name	CAS No. EC No. REACH No. Index No.	Concentration	Classification	H-phrase M factor acute M factor chronic	Note
Nitrogen	7727-37-9 231-783-9 -	52%	Press. Gas	H280 - -	-
Argon	7440-37-1 231-147-0 -	40%	Press. Gas	H280 - -	-
Carbon dioxide	124-38-9 204-696-9 -	8%	Press. Gas	H280 - -	-

#### **Substance additional information**

For the complete text of H- / EUH-statements mentioned in this section, see section 16.





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#### **SECTION 4: First aid measures**

#### 4.1. Description of first aid measures

If symptoms occur, consult a physician.

#### Inhalation

Remove person to fresh air and keep comfortable for breathing. If breathing stops, provide artificial respiration. Put victim at rest, cover with a blanket and keep warm. Get medical attention immediately.

#### Skin contact

Heat the exposed body part in lukewarm water if cold injury occurs. Do NOT use warm water. Frostbite should be treated by a doctor.

#### Eye contact

Remove contact lenses if that's the case.

Rinse eyes with water as a precautionary measure.

Continue to rinse for at least 15 minutes.

Get medical attention if any discomfort continues.

#### Ingestion

Drink plenty of water. Provide fresh air. If symptoms persist, call a physician.

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

Contact with rapidly expanding gas may cause frostbite.

High concentrations can displace the normal air and cause suffocation from lack of oxygen.

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

Treat symptomatically.

#### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

#### Suitable extinguishing media

Not applicable. The product is a fire extinguisher.

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

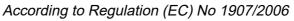
In case of fire, high pressure may build up causing the packaging to explode. Not flammable.

## 5.3. Advice for firefighters

### Special protective equipment for fire-fighters

Due to the risk of explosion, any extinguishing must be executed from a good distance. Protective measures should be taken regarding other material at the site of the fire. If the gas cylinder cannot be removed, cool it with water as long as the fire persists and then at least 10 minutes. Cool closed containers that were exposed to fire with water.

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.





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#### **SECTION 6: Accidental release measures**

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

Avoid contact with skin, eyes and clothes. Area should be evacuated and gases removed with ventilation. Do not inhale the gas. Keep unauthorized and unprotected people at a safe distance. Oxygen content should be checked to determine the amount of released product. Use masks with fresh air when oxygen content is low or unknown.

#### 6.2. Environmental precautions

Avoid discharges into drains, onto the ground and in aquatic environments. Notify authorities if product enters sewers or public waters.

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

Evacuate area. Ventilate the gas.

#### 6.4. Reference to other sections

For personal protection see section 8 and for disposal see section 13.

#### SECTION 7: Handling and storage

## 7.1. Precautions for safe handling

## **Preventive handling precautions**

Keep this product away from food and out of reach of children and pets.

Avoid contact with skin and eyes.

Check pipes and shut-off valves regularly for gas leakages. Store this product separately from food items and keep it out of the reach of children and pets.

#### General hygiene

When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

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

Store cool and dry in well-sealed packaging. Keep only in original packaging. Protect from heat and direct sunlight.

### 7.3. Specific end use(s)

See section 1.2.





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## **SECTION 8: Exposure controls/personal protection**

#### 8.1. Control parameters

## **Exposure limits**

Carbon dioxide

Long-term Exposure Limit (LTEL) values 9000 mg/m3 5000 pm

OELs - Occupational Exposure Limits - 2nd list. European Union.

## National occupational exposure limits

Ingredient	CAS No. EC No.	Exposure limit ppm / mg/m³	Short-term exposure limit ppm / mg/m³	Source	Remark	Year
Carbon dioxide	124-38-9 -	5000 9150	15000 27400	EH40/2005	-	2020

#### 8.2. Exposure controls

#### Appropriate engineering controls

Maintenance and service of personal protective equipment shall be included in the works plan for internal supervision. All inspections and remedial measures shall be documented. Oxygen monitors should be used since suffocating gases may be released. The ventilation in the workplace must ensure an air quality that meets the requirements of the current working environment legislation. Local exhaust ventilation should be used to remove airborne contaminants at the source.

#### Eye / face protection

Wear approved, tight fitting safety glasses where splashing is probable.

## **Hand protection**

Release of gas can cause strong cold. Gloves protecting against cold is recommended. The most suitable protective glove should be chosen in consultation with the glove supplier, taking into account the risk assessment for the specific task and the properties of the chemicals involved. Note that the breakthrough time of the material is affected by the duration of the exposure, temperature conditions, abrasion, etcetera.

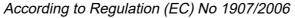
#### Other skin protection

Suitable protective suit.

#### Respiratory protection

Self-contained breathing apparatus may be required.

The most appropriate respiratory protective equipment should be decided in consultation with the appointed safety representative, taking into account the risk assessment for the specific task.





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## **SECTION 9: Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

#### Physical state

Gas

#### **Colour**

Colourless

#### <u>Odour</u>

Odorless

#### Melting point / freezing point

No data available

## Boiling point or initial boiling point and boiling range

No data available

## **Flammability**

No data available

#### Lower and upper explosion limit

No data available

## Flash point

No data available

#### **Auto-ignition temperature**

No data available

## **Decomposition temperature**

No data available

#### <u>рН</u>

No data available

## Kinematic viscosity

No data available

### **Solubility**

Insoluble in water

#### Partition coefficient n-octanol/water

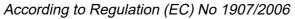
No data available

### Vapour pressure

No data available

#### **Density and/or relative density**

 $1.18 \, Air = 1$ 





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### Relative density

Not applicable

## Relative vapour density

1.416 kg/m<sup>3</sup>

## Particle characteristics

Not applicable.

#### 9.2. Other information

No further information available.

## **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

None under normal conditions.

#### 10.2. Chemical stability

Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

No dangerous reactions are known under normal use.

#### 10.4. Conditions to avoid

Protect from heat and direct sunlight.

#### 10.5. Incompatible materials

None known.

#### 10.6. Hazardous decomposition products

None under normal conditions.

## **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.

## **Skin corrosion/irritation**

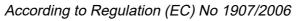
Based on available data, the classification criteria are not met.

#### Serious eye damage/irritation

Based on available data, the classification criteria are not met.

### Respiratory or skin sensitisation

Based on available data, the classification criteria are not met.





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## 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

Based on available data, the classification criteria are not met.

#### 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.

#### Symptoms related to the physical, chemical and toxicological characteristics

Can cause frostbite.

High concentrations can displace the normal air and cause suffocation from lack of oxygen.

#### 11.2. Information on other hazards

### **Endocrine disrupting properties**

The product does not contain any substances with endocrine disrupting properties.

#### Other information

No information available.

## **SECTION 12: Ecological information**

#### 12.1. Toxicity

## Acute toxicity

Not classified as dangerous for the environment.

### 12.2. Persistence and degradability

#### <u>Decay/transformation</u>

Criteria for the biological degradation is not applicable to this inorganic material.

#### 12.3. Bioaccumulative potential

Not applicable.

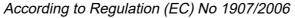
## 12.4. Mobility in soil

## **Mobility**

Not applicable.

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

The product does not meet the PBT and vPvB criteria of REACH regulation, Annex XIII.





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#### 12.6. Endocrine disrupting properties

The product does not contain any substances with endocrine disrupting properties.

#### 12.7. Other adverse effects

#### Other adverse effects

No information available.

## **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

#### **Disposal considerations**

Pressurized can: The container must not be heated or disposed as conventional waste. May be released into the atmosphere in well ventilated areas. Must not be released in areas where gases can accumulate.

Not classified as hazardous waste.

Any disposal practice must be in compliance with all local and national laws and regulations.

Waste code	Waste description	
16 05 05	gases in pressure containers other than those mentioned in 16 05 04	

Please note - an asterisk (\*) next to a code denotes that it is HAZARDOUS WASTE.

#### Other

The waste code is a recommendation. Waste codes should be assigned by the user based on the application for which the product was used.

### **SECTION 14: Transport information**

## 14.1. UN number

1956

## 14.2. UN proper shipping name

## ADR / RID / ADN proper shipping name

COMPRESSED GAS, N.O.S. (NITROGEN GAS, ARGON)

#### IMDG proper shipping name

COMPRESSED GAS, N.O.S. (NITROGEN GAS, ARGON)

### IATA proper shipping name

Compressed gas, n.o.s. (NITROGEN GAS, ARGON)

## 14.3. Transport hazard class(es)

## <u>Label</u>

2.2

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## ADR/RID/ADN



2.2

**IMDG** 



2.2

IATA



Non-Flammable Gas

## ADR / RID Class

2

## ADR / RID Classification code

1A

## ADR / RID hazard identification number

20

## **IMDG Class**

2.2

## IATA Class

2.2

## **ADN Class**

2

## ADN Class Code

1A

## 14.4. Packing group

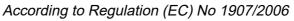
Not applicable

#### 14.5. Environmental hazards

No.

## **IMDG Marine Pollutant**

No.





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## 14.6. Special precautions for user

Tunnel restriction code E Transport category 3

#### IMDG EmS

F-C, S-V

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

Not applicable

#### Other

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres (ADR 1.1.3.6)

Stowage category A (IMDG)

Emergency Schedule (EmS) for FIRE (IMDG) F-C

Emergency Schedule (EmS) for SPILLAGE (IMDG) S-V

## **SECTION 15: Regulatory information**

## 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture <u>EU regulations</u>

Contains no substances from the candidate list REACH.

Contains no substances subject to restrictions according to Annex XVII of REACH.

Contains no substances listed in Annex XIV of REACH.

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 1272/2008 of the European Parliament and of the Council on classification,

labelling and packaging of substances and mixtures (CLP).

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road.

#### **National regulations**

Local laws and regulations should be carefully observed.

EH40/2005 Workplace exposure limits.

#### 15.2. Chemical safety assessment

No chemical safety assessment has been performed.

#### **SECTION 16: Other information**

#### Abbreviations

PBT: Persistent, Bioaccumulative and Toxic. vPvB: very Persistent and very Bioaccumulative.

#### References to key literature and data sources

Information also retrieved from the supplier's safety data sheet. Date: 2019-02-12.



# SAFETY DATA SHEET According to Regulation (EC) No 1907/2006

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## Phrase meaning

Press. Gas - Gases under pressure, Liquefied gas Press. Gas - Gases under pressure, Compressed gas H280 Contains gas under pressure; may explode if heated.