

SAFETY DATA SHEET



In accordance with 1907/2006 Annex II (2015/830) and 1272/2008
(All references to EU regulations and directives are abbreviated into only the numeric term)
Issued 2016-11-23
Replaces issued SDS 2014-03-18
Version number 2.0

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

1.1. Product identifier

Trade name Inergen
Article number i40374

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

Identified uses Fire extinguishing agents

1.3. Details of the supplier of the safety data sheet

Company Presto Brandsäkerhet AB
Värmbolsvägen 2, Box 315
64123 KATRINEHOLM
Sweden
Telephone +46 (0)10-45 20 000
E-mail info@presto.se

1.4. Emergency telephone number

Acute cases: Call 112, request poison information.

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Compressed gas, H280

2.2. Label elements

Hazard pictogram



Signal word Danger
Hazard statement H280 Contains gas under pressure; may explode if heated
Precautionary statement P410+P403 Protect from sunlight. Store in a well-ventilated place

2.3. Other hazards

Not indicated.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Note that the table shows known hazards of the ingredients in pure form. These hazards are reduced or eliminated when mixed or diluted, see Section 16d.

Constituent	Classification	Concentration
NITROGEN GAS		
CAS No: 7727-37-9 EC No: 231-783-9	Press Gas P; H280	52 %
ARGON		
CAS No: 7440-37-1 EC No: 231-147-0	Press Gas P; H280	40 %
CARBON DIOXIDE		
CAS No: 124-38-9	Press Gas P; H280	8 %

Explanations to the classification and labelling of the ingredients are given in Section 16e. Official abbreviations are printed in normal font. Text in italics are specifications and/or complements used in the calculation of the classification of this mixture, see Section 16b.

SECTION 4: First aid measures

4.1. Description of first aid measures

Generally

- Put the person in the three-quarters prone recovery position if he or she is unconscious or groggy.
- Never attempt to administer liquid, or anything else, to an unconscious person via the mouth.
- Control heart activity and begin CPR (cardiopulmonary resuscitation) if necessary.
- Allow the injured person rest in a warm place which has fresh air.
- In case of concern, or if symptoms persist, call a doctor/physician.
- Use masks with fresh air when rescuing exposed persons.

Upon breathing in

- Allow the injured person to rest in a warm place with fresh air, if symptoms persist seek medical attention.

Upon eye contact

- No special measures are considered to be necessary.

Upon skin contact

- No special measures are considered to be necessary.

Upon ingestion

- No special measures are considered to be necessary.

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

- No further relevant information available.

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

- Symptomatic treatment.

SECTION 5: Fire-fighting measures

5.1. 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.

5.3. Advice 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.
- Cool closed containers that were exposed to fire with water.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- 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 emissions into soil, water or air.
- At amounts considered in this case, the product may be released into the natural environment without serious environmental consequences. Large emissions should however be reported to the emergency services and the Environment Agency.

6.3. Methods and material for containment and cleaning up

- Evacuate the area and ventilate the gas.

6.4. Reference to other sections

- Not indicated.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Treat the substance as potentially harmful to health.
- Store this product separately from food items and keep it out of the reach of children and pets.
- Do not eat, drink or smoke in premises where this product is stored.

7.2. Conditions for safe storage, including any incompatibilities

Store only in the original package.

This product should be stored well out of reach of young children and kept safely apart from products intended for consumption.

Store at max. 65°C.

7.3. Specific end uses

Not indicated.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National limit values

CARBON DIOXIDE

United Kingdoms (EH40/2005)

Time-weighted-average exposure limit (TWA) 5000 ppm / 9150 mg/m³

Short term exposure limit (STEL) 15000 ppm / 9999.99999 mg/m³

DNEL

No data available.

PNEC

No data available.

8.2. Exposure controls

Follow the instructions. No special measures need to be taken in the event of normal handling or use.

8.2.1. Appropriate engineering controls

Handle in premises with good ventilation.

Oxygen monitors should be used since suffocating gases may be released.

Eye/face protection

Eye protection is not necessary during normal use.

Skin protection

Protective gloves are not needed.

Respiratory protection

A respiratory mask may be required.

8.2.3. Environmental exposure controls

No specific measures needed.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

a) Appearance	Form: Compressed gas. Colour: colourless.
b) Odour	scentless
c) Odour threshold	Not applicable
d) pH	Not indicated
e) Melting point/freezing point	Not indicated
f) Initial boiling point and boiling range	Not indicated
g) Flash point	Not indicated
h) Evaporation rate	Not indicated
i) Flammability (solid, gas)	Not applicable
j) Upper/lower flammability or explosive limits	Not indicated
k) Vapour pressure	Not indicated
l) Vapour density	1.416 kg/m ³
m) Relative density	1.18 Air = 1
n) Solubility	Solubility in water: Almost insoluble(<0.01%)
o) Partition coefficient: n-octanol/water	Not applicable
p) Auto-ignition temperature	Not indicated
q) Decomposition temperature	Not indicated
r) Viscosity	Not indicated
s) Explosive properties	Not applicable
t) Oxidising properties	Not applicable

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product contains no substances which can lead to hazardous reactions at normal use.

10.2. Chemical stability

The product is stable at normal storage and handling conditions.

10.3. Possibility of hazardous reactions

No hazardous reactions known.

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 toxicological effects

Note that in case of inhalation of large quantities, there is risk of suffocation due to lack of oxygen.

Acute toxicity

The product is not classified as harmful to health.

Skin corrosion/irritation

The criteria for classification cannot be considered fulfilled based on available data.

Serious eye damage/irritation

The criteria for classification cannot be considered fulfilled based on available data.

Respiratory or skin sensitisation

The criteria for classification cannot be considered fulfilled based on available data.

Germ cell mutagenicity

The criteria for classification cannot be considered fulfilled based on available data.

Carcinogenicity

The criteria for classification cannot be considered fulfilled based on available data.

Reproductive toxicity

The criteria for classification cannot be considered fulfilled based on available data.

STOT-single exposure

The criteria for classification cannot be considered fulfilled based on available data.

STOT-repeated exposure

The criteria for classification cannot be considered fulfilled based on available data.

Aspiration hazard

The criteria for classification cannot be considered fulfilled based on available data.

SECTION 12: Ecological information

12.1. Toxicity

No ecological damage is known or expected in the event of normal use.

12.2. Persistence and degradability

The methods used to test biodegradability is not applicable on inorganic compounds.

12.3. Bioaccumulative potential

Not applicable.

12.4. Mobility in soil

Not applicable.

12.5. Results of PBT and vPvB assessment

The criteria for PBT and vPvB does not apply to inorganic substances.

12.6. Other adverse effects

No known effects or hazards.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste handling of the product

May be released into the atmosphere in well ventilated areas. Must not be released in areas where gases can accumulate.

The product is not classified as hazardous waste.

Containers must not be perforated or burned.

See also national waste regulations.

Classification according to 2006/12

SECTION 14: Transport information

Where not otherwise stated the information applies to all of the UN Model Regulations, i.e. ADR (road), RID (railway), ADN (inland waterways), IMDG (sea), and ICAO (IATA) (air).

14.1. UN number

1956

14.2. UN proper shipping name

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

14.3. Transport hazard class(es)

Class

2: Gases

Classification code (ADR/RID)

1A: Compressed gas: asphyxiant

Subsidiary risk (IMDG)

No subsidiary risk according to IMDG

Labels



14.4. Packing group

Not applicable

14.5. Environmental hazards

Not applicable

14.6. Special precautions for user

Tunnel restrictions

Tunnel category: E

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable

14.8 Other transport information

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres

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

Not indicated.

15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

SECTION 16: Other information

16a. Indication of where changes have been made to the previous version of the safety data sheet

Revisions of this document

Earlier versions

2014-03-18 Revisions of this document has, where not otherwise stated, been caused by changes in the regulations

16b. Legend to abbreviations and acronyms used in the safety data sheet

Full texts for Hazard Class and Category Code mentioned in section 3

Press Gas *P* Compressed gas

Explanations of the abbreviations in Section 14

ADR European Agreement concerning the International Transport of Dangerous Goods by Road

RID Regulations concerning the International Transport of Dangerous Goods by Rail

IMDG International Maritime Dangerous Goods Code

ICAO International Civil Aviation Organization (ICAO, 999 University Street, Montreal, Quebec H3C 5H7, Canada)

IATA The International Air Transport Association

Tunnel restriction code: E; Passage through category E tunnels is strictly forbidden

Transport category: 3; Maximum total quantity per transport unit: 1000 kgs or litres

16c. Key literature references and sources for data

Sources for data

Primary data for the calculation of the hazards has preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2016-11-23.

Where such data was not available, alternative documentation used to establish the official classification was used, e.g. IUCLID (International Uniform Chemical Information Database). As a second alternative, information was used from reputable international chemical industries, and as a third alternative other available information was used, e.g. material safety data sheets from other suppliers or information from non-profit associations, where reliability of the source was assessed by expert opinion. If, in spite of this, reliable information could not be sourced, the hazards were assessed by expert opinions based on the known hazards of similar substances, and according to the principles in 1907/2006 and 1272/2008.

Full texts for Regulations mentioned in this Safety Data Sheet

1907/2006 Annex II (2015/830)	COMMISSION REGULATION (EU) 2015/830 of 28 May 2015 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
1272/2008	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
EH40/2005	EH40/2005 Workplace exposure limits
2006/12	DIRECTIVE 2006/12/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 5 April 2006 on waste
1907/2006	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

16d. Methods of evaluating information referred to in 1272/2008 Article 9 which was used for the purpose of classification

Hazard calculation for this mixture has been performed as a cumulative assessment with the aid of expert assessments in accordance with 1272/2008 Annex I, where all available information which may be significant to establishing the hazards of the mixture was assessed together, and in accordance with 1907/2006 Annex XI.

16e. List of relevant hazard statements and/or precautionary statements

Full texts for hazard statements mentioned in section 3

H280 Compressed gas

16f. Advice on any training appropriate for workers to ensure protection of human health and the environment

Warning for misuse

This product can cause injuries if not used properly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

Other relevant information

Editorial information



This material safety data sheet has been prepared and checked by KemRisk®, KemRisk Sweden AB, Platensgatan 8, SE-582 20 Linköping, Sweden, www.kemrisk.se