

Prolnert™ IG-541

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

Product identifier

Prolnert™ IG-541

Use of the substance/preparation

Fire extinguishing agent

Company/undertaking identification

Fike Corporation
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Emergency telephone

SECTION 2: Hazards identification

Classification of the substance or mixture

Gases under pressure H280 : Contains gas under pressure; may explode if heated.

Label elements



Warning

H280 : Contains gas under pressure; may explode if heated.

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

Other Hazards

The gas mixture is heavier than air and can cause suffocation by reducing oxygen available for breathing.

SECTION 3: Composition/information on ingredients

Mixture of 48.8-55.2% Nitrogen, 37.2-42.8% Argon and 7.6-8.4% Carbon dioxide

SECTION 4: First aid measures

General advice

If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person. If breathing is irregular or stopped, administer artificial respiration. If symptoms persist, call a physician.

Inhalation

May cause asphyxiation at high concentrations. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. Remove victim to an uncontaminated area, wearing self-contained breathing apparatus. Keep person warm and at rest. Seek medical assistance. Apply artificial respiration if breathing has stopped.

Skin/eye contact

Compressed gas directed at the skin can enter the body through small wounds or even penetrate the skin, causing serious or fatal injuries. Seek medical advice immediately.

Ingestion

Ingestion is not considered a potential route of exposure.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

All known extinguishants can be used.

Specific methods

If possible stop flow of product. Move container away or cool with water from a protected position.

Specific hazards during firefighting

- Pressure buildup
- Fire of intense heat may cause violent rupture of containers.
- No hazardous combustion products.

Advice for fire fighters

In confined spaces use self-contained breathing apparatus. Use personal protective equipment.

SECTION 6: Accidental release measures

Personal precautions

Evacuate personnel to safe areas. Ventilate area, especially low or enclosed places where the mixture might collect. Refer to protective measures listed in sections 7 and 8.

Environmental precautions

Provided it is safe to do so, try to stop release. Prevent from entering sewers, basements and work pits or any place where accumulation can be dangerous.

Methods for cleaning up

Ventilate area.

Disposal

Refer to section 13 for disposal instructions.

SECTION 7: Handling and storage

Handling

- Substance is heavier than air and may spread along floors.
- Compressed gas cylinders are heavy and contain considerable stored energy. Use suitable equipment and handle with appropriate caution. Contact supplier if in doubt.

Storage

Do not drag, slide or roll containers. Never attempt to lift cylinder by its cap. Use a check valve in the discharge line to prevent hazardous back flow into the container.

Storage temperature

Keep containers in a dry, cool and well ventilated place at a temperature of between -20°C and 50°C.

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

No exposure limit specified, but atmosphere must have a minimum of 18% free oxygen.

Exposure controls

- Ensure adequate ventilation, especially in confined areas.
- **Eye protection** - wear safety glasses complying with EN 166 or ANSI Z87.1
- **Hand protection** - Leather gloves that are resistant to low temperature complying with EN 374 or US OSHA guidelines. The choice of the gloves also depends on other quality features other than material and is different from one manufacturer to another. Consideration must be given to specific local conditions such as the danger of cuts, abrasion and contact time with the substance.
- **Skin and body protection** – Wear suitable protective equipment.
- **Protective measures** – Self-contained breathing apparatus is required if a large release is experienced.
- **Respiratory protection** – For rescue use self-contained breathing apparatus. The mixture is heavier than air and can cause suffocation by reducing the oxygen concentration available for breathing. Apparatus must comply with EN 137.

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

Form	: Colorless gas
Odour	: None
Molecular weight	: 34.0
Freezing point	: -78.5°C
Boiling point	: -196°C
Relative density gas	: Heavier than air
Relative density liquid	: Not applicable
Vapour pressure @ 20°C	: Not applicable
Solubility in water	: Negligible
Auto ignition temperature	: Not applicable
Flammability range	: Not applicable

SECTION 10: Stability and reactivity**Reactivity and chemical stability**

Stable under normal conditions

Possibility of hazardous reactions

Stable

Hazardous decomposition products

None

SECTION 11: Toxicological information	
General	No toxicological effects from this product
LC50/ih	No acute toxicity
SECTION 12: Ecological information	
No ecological damage is caused by this product. Nitrogen, Argon and Carbon dioxide are natural components of air. Nitrogen constituting approximately 78%, Argon approximately 0.9% and Carbon dioxide 0.03% of the earth's atmosphere.	
SECTION 13: Disposal considerations	
To atmosphere in a well-ventilated area. Consider noise and pressure hazards. Do not discharge into any place where its accumulation could be dangerous. Contact your Fike Corporation supplier if guidance is required.	
SECTION 14: Transport information	
UN No.	: 1956
Class	: 2
Proper shipping name	: Compress gas, n.o.s. (52% Nitrogen, 40% Argon, 8% Carbon dioxide)
ADR/RID Item No.1	: 2.1a
Other transport information	: Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in an emergency. Before transporting product containers ensure: <ul style="list-style-type: none"> • Cylinder valve is closed and not leaking. • Valve outlet cap is correctly fitted. • Adequate ventilation. • Compliance with applicable regulations.
SECTION 15: Regulatory information	
SECTION 16: Other information	
Refer to Section 3. H280 Contains gas under pressure; may explode if heated. The hazard of asphyxiation is often overlooked and must be stressed during operator training. Before using this product in any new processes or experiment, a thorough material compatibility and safety study should be carried out.	
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