



IG-55 (Nitrogen/Argon)

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH) and its amendment
Regulation (EU) 2015/830 and US 29 CFR 1910.1200

SECTION 1: Product and Company Identification

1.1 Product identifier

Product label: IG-55
Chemical name: Nitrogen/Argon mixture
CAS No: Argon (7740-37-1)
Nitrogen (7727-37-9)

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

Use of the substance/preparation: Fire extinguishing agent

1.3 Details of the supplier of the safety data sheet

Fike Corporation
704 SW 10th Street
P.O. Box 610
Blue Springs, MO 64013-0610
USA

1.4 Emergency telephone number

Tel : +1 816 229 3405

SECTION 2: Hazards Identification

2.1 Classification of the substance or mixture

Gases under pressure: H280: contains gas under pressure. It may explode if heated.

2.2 Label element



GHS04

Signal word: WARNING

Hazard statements: H280 – Contains gas under pressure; may explode if heated.
P410 + 403 – Protect from sunlight. Store in a well-ventilated place.

2.3 Other hazards

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

SECTION 3: Composition / Information on Ingredients

3.1 Mixtures

Name: IG-55

Gas Component	CAS No.	% (Vol)
Nitrogen	7727-37-9	50-52%
Argon	7440-37-1	48-50%

SECTION 4: First-aid Measures

4.1 Description of first aid measures

If unconscious, place in the 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 or consciousness. The victim may not be aware of asphyxiation. Remove the victim to an uncontaminated area, wearing self-contained breathing apparatus. Keep the 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 minor wounds or even penetrate the skin, causing severe or fatal injuries. Seek medical assistance immediately.
Ingestion:	Ingestion is not considered a potential route of exposure.

4.2 Most important symptoms and effects, both acute and delayed

No additional information is available.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Fire-fighting Measures

5.1 Extinguishing media

Suitable extinguishing media: All known extinguishants can be used.

5.2 Special hazards arising from the substance or mixture

No additional information is available.

5.3 Advice for firefighters

Product flow:	If possible, stop the flow of the product. Move the container away or cool it with water from a protected position.
Pressure build-up:	Fire of intense heat may cause violent rupture of containers.
Combustion products:	No hazardous combustion products.
Protective equipment:	In confined spaces, use self-contained breathing apparatus. Use personal protective equipment.

SECTION 6: Accidental Release Measures

6.1 Personal precautions, protective equipment, and emergency procedures

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

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Ventilate area. This substance will vaporize into the atmosphere.

6.4 Reference to other sections

Refer to sections 8 & 13.

SECTION 7: Handling and Storage

7.1 Precautions for safe handling:

The substance is heavier than air and may spread along floors. Compressed gas cylinders are heavy and contain considerable stored energy. Use equipment specified as suitable for this product, its supply pressure, and temperature. Handle with appropriate caution. Contact the supplier if in doubt.

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions:	Do not drag, slide or roll containers. Never attempt to lift the cylinder by its cap. Use a check valve in the discharge line to prevent hazardous backflow into the container.
Storage temperature:	Keep containers in a dry, cool, and well-ventilated place at a temperature not below -4°F (-20°C) and not exceeding 122°F (50°C) for Fike ProInert™ cylinders or 140°F (60°C) for Fike Inert Gas cylinders. Exposure of compressed gas cylinders beyond the allowable storage temperature will increase pressure, which may cause the cylinder relief disc to burst or, in extreme cases, the cylinder to burst.

SECTION 8: Exposure Controls / Personal Protection

8.1 Control parameters

Exposure limits:	No exposure limit specified; the atmosphere must have a minimum of 18% free oxygen.
Appropriate engineering controls:	Systems under pressure should be regularly checked for leakages. Ensure exposure is below occupational exposure limits. Consider using a work permit system, e.g., for maintenance activities.
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 temperatures complying with EN 374 or OSHA 29 CFR 1910.138. The choice of gloves also depends on other quality features other than material and differs from manufacturer to manufacturer. 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 significant 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 or OSHA 29 CFR 1910.134.

SECTION 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Appearance:	Colorless Gas
Odor:	None
Odor threshold	Odor threshold is subjective and inadequate to warn of overexposure
pH	Not applicable
Melting/freezing point	-199.7°C
Boiling point	-190.1°C
Flash point	No data available
Evaporation rate	No data available
Flammability	Non-flammable
Vapor pressure	No data available
Relative density gas:	Heavier than air
Solubility in water:	Negligible
Explosive properties	Not applicable
Oxidizing properties	Not applicable

9.2 Other information

No additional information.

SECTION 10: Stability and Reactivity

10.1 Reactivity

No reactivity hazard other than the effects described in the sub-sections below.

10.2 Chemical stability

Stable under normal conditions

10.3 Possibility of hazardous reactions

None

10.4 Conditions to avoid

None

10.5 Hazardous decomposition products

None

10.6 Hazardous decomposition products

None

SECTION 11: Toxicological Information

Acute toxicity	Not classified
Skin corrosion/irritation	No known effects
Serious eye damage/irritation	No known effects
Respiratory or skin sensitization	No known effects
Germ cell mutagenicity	No known effects
Carcinogenicity	No known effects
Reproductive toxicity	Not classified
STOT-single exposure	No known effects
STOT-repeated exposure	No known effects
Aspiration hazard	Not applicable

SECTION 12: Ecological Information

12.1 Toxicity

General	No ecological damage is caused by this product. Nitrogen and Argon are natural components of air, with nitrogen constituting approximately 78% and Argon approximately 0.9% of the Earth's atmosphere.
Hazardous to the aquatic environment	Not classified

12.2 Persistence and degradability

No ecological damage caused.

12.3 Bioaccumulative potential

No data available

12.4 Mobility in soil

Unlikely to cause ground or water pollution due to its high volatility. Partition into the soil is unlikely

12.5 Results of PBT and vPvB assessments

No additional information is available.

12.6 Other adverse effects

No known effects

SECTION 13: Disposal Considerations

13.1 Waste treatment methods/Toxicity

Discharge to the atmosphere in a well-ventilated area. Consider noise and pressure hazards. Do not discharge into any place where its accumulation could be dangerous.

Return the cylinder to the supplier; otherwise, dispose of the container in accordance with local, regional, national, and/or international regulations.

Contact Fike Corporation (or Fike-approved supplier) if special guidance is required.

SECTION 14: Transport Information

14.1 UN number

1956

14.2 UN proper shipping name

Compress gas, N.O.S. (50% Nitrogen, 50% Argon)

14.3 Transport hazard class(es)

Class 2.2

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not dangerous for the environment

14.6 Special precautions for user

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure the vehicle driver is aware of the potential hazards of the load and knows what to do in an emergency

Before transporting the product, ensure the following:

- The cylinder valve is closed and not leaking;
- The valve outlet recoil cap, actuation port blanking plug, and shipping/safety cap is correctly fitted;
- Adequate ventilation;
- Compliance with applicable regulations.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory Information

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

15.1.1 EU-Regulations

No REACH Annex XVII restrictions

IG-55 is not on the REACH Candidate List

IG-55 is not on the REACH Annex XIV List

IG-55 is not subject to Regulations (EU) No 649/2012 and (EU) No 2019/1021

15.1.2 US Federal regulations

IG-55 is listed on the United States TSCA (Toxic Substances Control Act) inventory

15.1.2 International regulations

IG-55: Listed on the Canadian DSL (Domestic Substances List)

Listed on the EEC inventory EINECS (Inventory of Existing Commercial Chemical Substances)

SECTION 16: Other Information

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

Before using this product in any new processes or experiments, a complete material compatibility and safety study should be carried out.

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