SAFETY DATA SHEET
IG-541

1. IDENTIFICATION

Product Name	IG-541
Recommended use of the chemical and restrictions on use	
Identified uses	Fire Extinguishing Agent
Restrictions on use	Consult applicable fire protection codes
Company Identification	Kidde-Fenwal, Inc. 400 Main Street Ashland, MA 01721 USA
Customer Information Number	(508) 881-2000
Emergency Telephone Number	
CHEMTREC Number	(800) 424-9300 (703) 527-3887 (International)
Issue Date	March 13, 2024
Supersedes Date	July 28, 2017

Safety Data Sheet prepared in accordance with OSHA's Hazard Communication Standard (29 CFR 1910.1200) and the Globally Harmonized System of Classification and Labelling of Chemicals (GHS)

2. HAZARD IDENTIFICATION

Hazard Classification
Gas under pressure – compressed gas
Simple Asphyxiant

Label Elements
Hazard Symbols

Signal Word: Warning

Hazard Statements
Contents under pressure; may explode if heated.
May displace oxygen and cause rapid suffocation.

Precautionary Statements
Prevention
Do not enter confined space unless adequately ventilated.
In case of inadequate ventilation wear respiratory protection.
Response
None
Storage
Keep container tightly closed.
Protect from sunlight and store in well-ventilated place.

2. HAZARD IDENTIFICATION

Disposal
None

Other Hazards
Avoid direct inhalation of undiluted gas. Can cause suffocation by reducing oxygen available for breathing. Breathing very high concentrations can cause dizziness, shortness of breath, unconsciousness or asphyxiation.

Specific Concentration Limits
The values listed below represent the percentages of ingredients of unknown toxicity.

Acute oral toxicity	0%
Acute dermal toxicity	0%
Acute inhalation toxicity	0%
Acute aquatic toxicity	100%

3. COMPOSITION/INFORMATION ON INGREDIENTS

This product is a mixture.

Component	CAS Number	Concentration
Nitrogen	7727-37-9	52%
Argon	7440-37-1	40%
Carbon Dioxide	124-38-9	8%

4. FIRST- AID MEASURES

Description of necessary first-aid measures
Eyes
No specific measures.
Skin
No specific measures.
Ingestion
Ingestion is not considered a potential route of exposure.
Inhalation
Remove from exposure. If there is difficulty in breathing, give oxygen. Obtain medical attention immediately.

Most important symptoms/effects, acute and delayed
Aside from the information found under Description of necessary first aid measures (above) and Indication of immediate medical attention and special treatment needed, no additional symptoms and effects are anticipated.

Indication of immediate medical attention and special treatment needed
Notes to Physicians
Treat symptomatically.

5. FIRE - FIGHTING MEASURES

Suitable Extinguishing Media
This product is used as an extinguishing agent and therefore is not a problem when trying to control a blaze. Use extinguishing agent appropriate to other materials involved. Keep containers and surroundings cool with water spray as containers may rupture or burst in the heat of a fire.

Specific hazards arising from the chemical
Containers may explode in heat of fire.

Special Protective Actions for Fire-Fighters
Wear full protective clothing and self-contained breathing apparatus as appropriate for specific fire conditions.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Remove leaking cylinder to a safe place. Ventilate the area. Leaks inside confined spaces may cause suffocation as oxygen is displaced and should not be entered without a self-contained breathing apparatus.

Environmental Precautions
None - Material is a normal atmospheric gas.

Methods and materials for containment and cleaning up
None

7. HANDLING AND STORAGE

Precautions for safe handling
Containers should be properly stored and secured to prevent falling or being knocked over. Do not drag, slide or roll containers. Do not drop containers or permit them to strike against each other. Never apply flame or localized heat directly to any part of the containers.

Conditions for safe storage
Store away from sources of heat or ignition. Storage area should be: - cool - dry - well ventilated - under cover - out of direct sunlight

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Exposure limits are listed below, if they exist.
Carbon Dioxide
ACGIH TLV: 5000 ppm (9000 mg/m^3) STEL: 30,000 ppm (54,000 mg/m^3)
OSHA PEL: 5000 ppm (9000 mg/m^3)

Appropriate engineering controls
Use with adequate ventilation (natural or mechanical), especially in a confined space.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Individual protection measures
Respiratory Protection
Not normally required. In oxygen deficient atmospheres, use a self contained breathing apparatus, as an air purifying respirator will not provide protection.
Skin Protection
Use leather or sturdy work gloves when handling cylinders.
Eye/Face Protection
Chemical goggles or safety glasses with side shields.
Body Protection
Normal work wear.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	
Physical State	Compressed gas
Color	Colorless
Odor	None
Odor Threshold	Not applicable
pH	Not applicable
Relative Gas Density	Heavier than air.
Boiling Range/Point (°C)	Not applicable
Melting Point (°C)	Not applicable
Flash Point (PMCC) (°C/F)	Not applicable
Vapor Pressure	No data available
Evaporation Rate (BuAc=1)	Not applicable
Solubility in Water	No data available
Vapor Density (Air = 1)	No data available
VOC (%)	Not applicable
Partition coefficient (n-octanol/water)	No data available
Viscosity	Not applicable
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not applicable
Upper explosive limit	Not applicable
Lower explosive limit	Not applicable
Flammability (solid, gas)	Not flammable

10. STABILITY AND REACTIVITY

Reactivity
Containers may rupture or explode if exposed to heat.

Chemical Stability
Stable under normal conditions.

Possibility of hazardous reactions
Hazardous polymerization will not occur.

Conditions to Avoid
None known

10. STABILITY AND REACTIVITY

Incompatible Materials
None known

Hazardous Decomposition Products
None

11. TOXICOLOGICAL INFORMATION

Acute Toxicity
Simple asphyxiant.

Specific Target Organ Toxicity (STOT) – single exposure
Exposure to argon, nitrogen and carbon dioxide gases at high concentrations can cause suffocation by reducing oxygen available for breathing. Breathing very high concentrations can cause dizziness, shortness of breath, unconsciousness or asphyxiation.

Specific Target Organ Toxicity (STOT) – repeat exposure
No data available.

Serious Eye damage/Irritation
No data available.

Skin Corrosion/Irritation
No data available.

Respiratory or Skin Sensitization
No data available.

Carcinogenicity
Not considered carcinogenic by NTP, IARC, and OSHA.

Germ Cell Mutagenicity
No data available.

Reproductive Toxicity
No data available.

Aspiration Hazard
Not an aspiration hazard.

12. ECOLOGICAL INFORMATION

Ecotoxicity
No data available

Mobility in soil
Argon, nitrogen and carbon dioxide occur naturally in the atmosphere.

Persistence/Degradability
Argon, nitrogen and carbon dioxide occur naturally in the atmosphere.

12. ECOLOGICAL INFORMATION

Bioaccumulative Potential
Argon, nitrogen and carbon dioxide occur naturally in the atmosphere.

Other adverse effects
No relevant studies identified.

13. DISPOSAL CONSIDERATIONS

Disposal Methods
Dispose of container in accordance with all applicable local and national regulations. Do not cut puncture or weld on or near to the container. If spilled, contents will vaporize to the atmosphere.

14. TRANSPORT INFORMATION

Safety Data Sheet information is intended to address a specific material and not various forms or states of containment.

Pressurized Containers

DOT CFR 172.101 Data	Compressed Gas, n.o.s., (Nitrogen, Argon, Carbon Dioxide), (2.2), UN1956
UN Proper Shipping Name	Compressed Gas, n.o.s., (Nitrogen, Argon, Carbon Dioxide)
UN Class	(2.2)
UN Number	UN1956
UN Packaging Group	Not applicable
Classification for AIR Transportation (IATA)	Consult current IATA Regulations prior to shipping by air.
Classification for Water Transport IMDG	Consult current IMDG Regulations prior to shipping by water.

This section is believed to be accurate at the time of preparation. It is not intended to be a complete statement or summary of the applicable laws, rules, or hazardous material regulations, and is subject to change. Users have the responsibility to confirm compliance with all laws, rules, and hazardous material regulations in effect at the time of shipping.

15. REGULATORY INFORMATION

United States TSCA Inventory
All components of this product are in compliance with the inventory listing requirements of the US Toxic Substance Control Act (TSCA) Chemical Substance Inventory.

Canada DSL Inventory
All ingredients in this product have been verified for inclusion on the Domestic Substance List (DSL).

SARA Title III Sect. 311/312 Categorization
Pressure Hazard

SARA Title III Sect. 313
This product does not contain any chemicals listed in Section 313 at or above de minimis concentrations.

16. OTHER INFORMATION

NFPA Ratings
NFPA Code for Health - 0
NFPA Code for Flammability - 0
NFPA Code for Reactivity - 0
NFPA Code for Special Hazards – None

Legend
ACGIH: American Conference of Governmental Industrial Hygienists
CAS: Chemical Abstracts Service
IARC: International Agency for Research on Cancer
LCLo: Lethal concentration low
N/A: Denotes no applicable information found or available
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Administration
PEL: Permissible Exposure Limit
SDS: Safety Data Sheet
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value

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