

Safety Data Sheet

This safety data sheet complies with the requirements of: 2012 OSHA Hazard Communication Standard (29CFR 1910.1200)

Product name INFRGEN®

1. Identification

1.1. Product Identifier

Product name INERGEN®

1.2. Other means of identification

Product code 426147 UN/ID no UN1956 Synonyms None

Chemical Family No information available

1.3. Recommended use of the chemical and restrictions on use

Recommended use No information available

Uses advised against Consumer use

1.4. Details of the Supplier of the Safety Data Sheet

Company Name Tyco Fire Protection Products

One Stanton Street Marinette, WI 54143-2542 Telephone: 715-735-7411

Contact point Product Stewardship at 1-715-735-7411

E-mail address psra@tycofp.com

1.5. Emergency Telephone Number

Emergency telephone CHEMTREC 800-424-9300 or 703-527-3887

2. Hazards Identification

Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Gases Under Pressure - Compressed Gas

2.2. Label Elements

Signal Word WARNING

hazard statements

Contains gas under pressure; may explode if heated



The product contains no substances which at their given concentration, are considered to be hazardous to health



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Precautionary Statements

2.3. Hazards Not Otherwise Classified (HNOC)

Simple asphyxiants. Contact with product may cause frostbite.

2.4. OTHER INFORMATION

Unknown Acute Toxicity 100% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/information on Ingredients

3.1. Mixture

The following component(s) in this product are considered hazardous under applicable OSHA(USA)

Chemical name	CAS No	weight-%
Carbon Dioxide	124-38-9	5 - 10

4. First aid measures

4.1. Description of first aid measures

General Advice Call 911 or emergency medical service. Remove and isolate contaminated clothing and

shoes.

Eye Contact Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids.

Consult a physician.

Skin contact Wash skin with soap and water. Get medical attention if irritation develops and persists.

Inhalation Remove to fresh air. If breathing is difficult, give oxygen. (Get medical attention immediately

if symptoms occur.).

Ingestion Rinse mouth. Do not induce vomiting without medical advice. If swallowed, call a poison

control center or physician immediately.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved and take precautions to

protect themselves.

4.2. Most Important Symptoms and Effects, Both Acute and Delayed

Symptoms Unconsciousness.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

Note to physiciansTreat symptomatically.

5. Fire-fighting measures

5.1. Suitable Extinguishing Media

Product is extinguishing agent. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.



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5.2. Unsuitable Extinguishing Media

None

5.3. Specific Hazards Arising from the Chemical

None known.

Products

Hazardous Combustion

Carbon oxides, Fluorinated oxides, Nitrogen oxides (NOx), Oxides of sulfur

5.4. Explosion Data

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

5.5. Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal Precautions Ensure adequate ventilation, especially in confined areas.

OTHER INFORMATION Ventilate the area.

6.2. Environmental Precautions

Environmental Precautions Prevent further leakage or spillage if safe to do so. Prevent entry into waterways, sewers,

basements or confined areas. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Cleaning Up Pick up and transfer to properly labeled containers.

7. Handling and Storage

7.1. Precautions for Safe Handling

Advice on safe handling Avoid contact with skin and eyes. Handle in accordance with good industrial hygiene and

safety practice.

7.2. Conditions for safe storage, including any incompatibilities

Storage Conditions Keep containers tightly closed in a dry, cool and well-ventilated place.

Incompatible Materials Strong oxidizing agents. Strong acids. Strong bases.

8. Exposure Controls/Personal Protection

8.1. Control Parameters

Exposure guidelines



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 Chemical name
 ACGIH TLV
 OSHA PEL
 NIOSH IDLH

 Carbon Dioxide
 STEL: 30000 ppm
 IDLH: 40000 ppm

 124-38-9
 TWA: 5000 ppm
 TWA: 5000 ppm

 TWA: 9000 mg/m³
 STEL: 30000 ppm

 STEL: 54000 mg/m³
 STEL: 54000 mg/m³

ACGIH (American Conference of Governmental Industrial Hygienists) OSHA (Occupational Safety and Health Administration of the US Department of Labor) NIOSH IDLH Immediately Dangerous to Life or Health

8.2. Appropriate Engineering Controls

Engineering controls Showers

Eyewash stations Ventilation systems.

8.3. Individual protection measures, such as personal protective equipment

Eye/Face Protection Avoid contact with eyes. Tight sealing safety goggles.

Skin and Body Protection Wear protective gloves and protective clothing.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved

respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be

provided in accordance with current local regulations.

VentilationUse local exhaust or general dilution ventilation to control exposure with applicable limits

8.4. General hygiene considerations

Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Physical State Compressed Gas

Odor None Color Colorless

odor threshold No data available

<u>Property</u> <u>VALUES</u> <u>Remarks • Method</u>

pH No data available
Melting point/freezing point No data available
Boiling point / boiling range -196 °C / -321 °F

Boiling point / boiling range -196 °C / -321 °l
Flash Point No data available
Evaporation Rate No data available
flammability (solid, gas) No data available

Flammability limit in air

Upper flammability limit:
Lower flammability limit:
Vapor Pressure
Vapor Density
Specific gravity
Water Solubility
No data available



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Solubility in Other Solvents
Partition coefficient
Autoignition Temperature
Decomposition Temperature
Kinematic viscosity

No data available No data available No data available No data available

No data available

density 0.0014171

10. Stability and Reactivity

10.1. Chemical Stability

Stable under recommended storage conditions.

10.2. Reactivity

No data available

10.3. Possibility of hazardous reactions

None under normal processing.

hazardous polymerization Hazardous polymerization does not occur.

10.4. Conditions to Avoid

Extremes of temperature and direct sunlight.

10.5. Incompatible Materials

Strong oxidizing agents. Strong acids. Strong bases.

10.6. Hazardous decomposition products

Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur. Fluorinated oxides.

11. Toxicological Information

11.1. Information on Likely Routes of Exposure

Product information

INHALATION In high concentration the gas may cause a suffocation. Victim may not be aware of

asphyxiation. In confined or poorly ventilated areas, vapors can readily accumulate and can

cause unconsciousness and death.

Eye Contact Contact with product may cause frostbite.

Skin contact Contact with product may cause frostbite.

INGESTION Not an expected route of exposure.

Acute Toxicity

11.2. Information on Toxicological Effects



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Symptoms Unconsciousness.

11.3. Delayed and immediate effects as well as chronic effects from short and long-term exposure

sensitizationNo information available.Germ Cell MutagenicityNo information availablecarcinogenicityNo information available.

Reproductive Toxicity Lack of oxygen during pregnancy has produced developmental abnormalities in humans

and experimental animals. No information available. No information available.

Target organ effects Respiratory System, Central Vascular System (CVS).

Aspiration Hazard No information available.

11.4. Numerical Measures of Toxicity - No information available

12. Ecological Information

12.1. ecotoxicity

STOT - Single Exposure

STOT - Repeated Exposure

100% of the mixture consists of components(s) of unknown hazards to the aquatic environment

12.2. Persistence and Degradability

No information available.

12.3. Bioaccumulation

No information available.

12.4. Other Adverse Effects

No information available

13. Disposal Considerations

13.1. Waste Treatment Methods

Disposal of wastes Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated Packaging Do not reuse container.

14. Transport Information

DOT

UN/ID no UN1956

Description UN1956, Compressed gas, n.o.s. (Nitrogen, Argon), 2.2

Proper Shipping Name Compressed gas, n.o.s.

Hazard class 2.2 Emergency Response Guide 126

Number

TDG

UN/ID no UN1956



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Description UN1956, Compressed gas, n.o.s., 2.2

Proper Shipping Name Compressed gas, n.o.s.

Hazard class 2.2

MEX

UN/ID no UN1956

Description UN1956, Compressed gas, n.o.s. (Nitrogen, Argon), 2.2

Proper Shipping Name Compressed gas, n.o.s.

Hazard class 2.2

ICAO (air)

UN/ID no UN1956

Description UN1956, Compressed gas, n.o.s. (Nitrogen, Argon), 2.2

Proper Shipping Name Compressed gas, n.o.s.

Hazard class 2.2

<u>IATA</u>

UN/ID no UN1956

Description UN1956, Compressed gas, n.o.s. (Nitrogen, Argon), 2.2

Proper Shipping Name Compressed gas, n.o.s.

Hazard class 2.2 ERG Code 2L

IMDG

UN/ID no UN1956

Description UN1956, Compressed gas, n.o.s. (Nitrogen, Argon), 2.2

Proper Shipping Name Compressed gas, n.o.s.

Hazard class 2.2 EmS-No F-C, S-V Special Provisions 274

15. Regulatory Information

15.1. International Inventories

TSCA Complies
DSL/NDSL Complies
ENCS Does not comply
IECSC Complies
KECL Complies
PICCS Complies
AICS Complies

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

15.2. US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372



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SARA 311/312 Hazard Categories

Acute Health Hazard No
Chronic health hazard No
Fire Hazard No
Sudden Release of Pressure Hazard Yes
Reactive Hazard No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

15.3. US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know Regulations

Chemical name	New Jersey	Massachusetts	Pennsylvania
Nitrogen 7727-37-9	X	X	Х
Argon 7440-37-1	X	X	Х
Carbon Dioxide 124-38-9	X	X	Х

16. Other information, including date of preparation of the last revision

NFPA Health Hazards 1 flammability 0 Instability 0 Physical and chemical

properties Simple

asphyxiants

Health Hazards 1 flammability 0 Physical Hazards 3 Personal Protection X

Revision date 25-May-2015

Revision note

No information available

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet