



# MATERIAL SAFETY DATA SHEET

by Tyco Fire Suppression & Building Products

## INERGEN

Issue Date: 09-24-2010

### 1. Product and Company Identification

<b>Material name</b>	<b>INERGEN</b>
<b>Version #</b>	01
<b>Revision date</b>	09-24-2010
<b>CAS #</b>	Mixture
<b>Product use</b>	Fire extinguishing agent
<b>Manufacturer / Importer / Supplier</b>	
<b>Name</b>	Tyco Fire Suppression and Building Products
<b>Address</b>	One Stanton Street Marinette, WI 54143-2542
<b>Phone</b>	715-735-7411
<b>Internet</b>	<a href="http://www.ansul.com">http://www.ansul.com</a>
<b>Emergency Phone Number</b>	CHEMTREC 800-424-9300 or 703-527-3887

### 2. Hazards Identification

<b>Emergency overview</b>	DANGER  Contents under pressure. Heat may cause the containers to explode.
<b>OSHA regulatory status</b>	This product is considered not hazardous under 29 CFR 1910.1200 (Hazard Communication).
<b>Potential health effects</b>	
<b>Routes of exposure</b>	Inhalation.
<b>Eyes</b>	None known.
<b>Skin</b>	None known.
<b>Inhalation</b>	Suffocation (asphyxiant) hazard - if allowed to accumulate to concentrations that reduce oxygen below safe breathing levels.
<b>Ingestion</b>	Not a likely route of entry.
<b>Potential environmental effects</b>	Ecological injuries are not known or expected under normal use.

### 3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
CARBON DIOXIDE	124-38-9	10 - 20
Non-hazardous components	CAS #	Percent
NITROGEN	7727-37-9	40 - 60
ARGON	7440-37-1	40 - 60

### 4. First Aid Measures

<b>First aid procedures</b>	
<b>Eye contact</b>	Flush thoroughly with water for at least 15 minutes. Get medical assistance.
<b>Skin contact</b>	Rinse with water.
<b>Inhalation</b>	Remove to fresh air.
<b>Ingestion</b>	Not likely, due to the form of the product.
<b>General advice</b>	If you feel unwell, seek medical advice (show the label where possible).

### 5. Fire Fighting Measures

<b>Flammable properties</b>	The product is not flammable. No unusual fire or explosion hazards noted.
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<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	This product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame.
<b>Specific methods</b>	None known.

## 6. Accidental Release Measures

<b>Personal precautions</b>	None known.
<b>Environmental precautions</b>	No special environmental precautions required.
<b>Methods for containment</b>	Move the cylinder to a safe and open area if the leak is irreparable.
<b>Methods for cleaning up</b>	Not applicable.
<b>Other information</b>	Clean up in accordance with all applicable regulations.

## 7. Handling and Storage

<b>Handling</b>	Handle and open container with care.
<b>Storage</b>	Contents under pressure. Use care in handling/storage.

## 8. Exposure Controls / Personal Protection

### Occupational exposure limits

#### ACGIH

Components	Type	Value
CARBON DIOXIDE (124-38-9)	STEL	30000.0000 ppm
	TWA	5000.0000 ppm

#### U.S. - OSHA

Components	Type	Value
CARBON DIOXIDE (124-38-9)	PEL	5000.0000 ppm
		9000.0000 mg/m3
	STEL	54000.0000 mg/m3
		30000.0000 ppm
	TWA	10000.0000 ppm
		18000.0000 mg/m3

### Personal protective equipment

<b>Eye / face protection</b>	Not normally needed.
<b>Skin protection</b>	No special protective equipment required.
<b>Respiratory protection</b>	No personal respiratory protective equipment normally required.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical & Chemical Properties

### Appearance

<b>Form</b>	Compressed gas.
<b>Color</b>	Colorless.
<b>Odor</b>	None.

### Physical state

<b>pH</b>	Not available.
<b>Melting point</b>	Not available.
<b>Freezing point</b>	Not available.
<b>Boiling point</b>	-544 °F (-320 °C)

<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability limits in air, upper, % by volume</b>	Not available.
<b>Flammability limits in air, lower, % by volume</b>	Not available.
<b>Vapor pressure</b>	2950 psi @ 70F (at 200 bar)
<b>Vapor density</b>	1.1 (air=1)
<b>Specific gravity</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility (water)</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>VOC</b>	Not available.

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## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Material is stable under normal conditions.
<b>Conditions to avoid</b>	Excessive heat.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known.

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## 11. Toxicological Information

<b>Chronic effects</b>	Prolonged inhalation may be harmful.
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

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## 12. Ecological Information

<b>Ecotoxicity</b>	This product has no known eco-toxicological effects.
<b>Persistence and degradability</b>	Not available.

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## 13. Disposal Considerations

<b>Disposal instructions</b>	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Not applicable.

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## 14. Transport Information

### DOT

#### Basic shipping requirements:

<b>UN number</b>	UN1956
<b>Proper shipping name</b>	Compressed gas, n.o.s. (mixture of nitrogen, argon and carbon dioxide)
<b>Hazard class</b>	2.2
<b>Packaging exceptions</b>	306, 307
<b>Packaging non bulk</b>	302, 305
<b>Packaging bulk</b>	314, 315
<b>ERG number</b>	126



DOT

## 15. Regulatory Information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.  
CERCLA/SARA Hazardous Substances - Not applicable.

### CERCLA (Superfund) reportable quantity

None

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories** Acute Health - No  
Chronic Health - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

**Section 302 extremely hazardous substance** No

**Section 311 hazardous chemical** No

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

**State regulations** This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

### US - Pennsylvania RTK - Hazardous Substances: Listed substance

ARGON (CAS 7440-37-1)	Listed.
CARBON DIOXIDE (CAS 124-38-9)	Listed.
NITROGEN (CAS 7727-37-9)	Listed.

## 16. Other Information

**Further information** HMIS® is a registered trade and service mark of the NPCA.

**HMIS® ratings** Health: 0  
Flammability: 0  
Physical hazard: 0

**NFPA ratings**

Health: 0  
Flammability: 0  
Instability: 0

**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.

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