



Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen

Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

SECTION 1: Product and company Identification

1.1 Product identifier

Product form	Substance
Product name	Nitrogen
Product group	Core products
Other means of identification	Dinitrogen, NIT
CAS No	7727-37-9



Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen

Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

1.2. Recommended use and restrictions on use

Recommended uses and restrictions *Industrial use as directed

1.3 Details of the supplier of the safety data sheet:

Supplier :

Core Industrial Gases Inc.

395 Frankom street

Ajax, Ontario, L1S 1R4

Ph (905) 683 3262

1.4 EMERGENCY TELEPHONE NUMBER:

1-289-923-2757

Call emergency number 24 hours a day only for spills, Leaks, Fire, Exposure, or accidents involving this product. For routine information, Contact your supplier or Core Industrial Gases sales representative.

Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen
Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-CA Classification	Simple asphyxiant	H380
	Compressed gas	H280

2.2 GHS Label elements including precautionary statements

GHS-CA Labelling

Hazard pictograms



GHS04

Signal word: Warning

CONTAINS GAS UNDER PRESSURE, MAY EXPLODE IF HEATED MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION.

Precautionary statements

Do not handle until all safety precautions have been read and understood Use and store only outdoors or in a well-ventilated area Wear cold insulating gloves and either face shield or eye protection Protect from sunlight when ambient temperature exceeds 52°C (125°F) Use a back flow preventive device in the piping Close valve after each use and when empty. Use only with equipment rated for cylinder pressure, Obtain special instructions before using.

Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen
Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

2.3 Other hazards

Other hazards not contributing to the classification:

Asphyxiant in high concentrations. May cause suffocation by reducing Oxygen available for breathing.

2.4 Unknown acute toxicity(GHS-CA)

No data available.

SECTION 3. Composition/information on ingredients

3.1 Substances

Name	CAS No.	% (Vol)	Common Name (synonyms)
Nitrogen	CAS No. 7727-37-9	100 %	Nitrogen compressed

3.2 Mixtures

Not applicable.

SECTION 4: First aid measures

4.1 Description of first aid measures

First-aid measures after inhalation

Immediately remove to fresh air. If not breathing, clear airways of any slurry or caked material and give artificial respiration. If breathing is difficult, qualified personnel may give oxygen. Call a physician.



Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen

Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

First-aid measures after skin contact

Adverse effects not expected from this product.

First-aid measures after eye contact

Adverse effects not expected from this product. In case of eye irritation, Rinse immediately with plenty of water. Consult an ophthalmologist if irritation persists.

First-aid measures after ingestion

Ingestion is not considered a potential route of exposure.

4.2 Most important symptoms and effects, both acute and delayed

No additional information available.

4.3 Indication of any immediate medical attention and special treatment if needed

Other medical advice or treatment None.

SECTION 5: Firefighting measures

5.1 Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

5.2 Unsuitable extinguishing media

No additional information available.

5.3 Specific hazards arising from the hazardous product

Explosion Hazzard

Pressurized container may burst if heated.



Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen
Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

Reactivity

Under certain conditions, nitrogen can react violently with lithium, neodymium, titanium (above 1472°F/800°C), or magnesium to form nitrides. At high temperature, it can also combine with oxygen and hydrogen.

5.4 Special protective equipment and precautions for firefighters

Firefighting instructions

Evacuate all personnel from the danger area. Use self-contained breathing apparatus (SCBA) and protective clothing. Immediately cool containers with water from maximum distance. Stop flow of gas if safe to do so, while continuing cooling water spray. Remove ignition sources if safe to do so. Remove containers from area of fire if safe to do so. On-site fire brigades must comply with their provincial and local fire code regulations.

Protection during firefighting

Compressed gas asphyxiant. Suffocation hazard by lack of oxygen.

Special protective equipment for fire fighters

Standard protective clothing and equipment (Self Contained Breathing Apparatus) for firefighters.

Specific methods

Use fire control measures appropriate for the surrounding fire. Exposure to fire and heat radiation may cause gas containers to rupture. Cool endangered containers with water spray jet from a protected position. Prevent water used in emergency cases from entering sewers and drainage systems Stop flow of product if safe to do so, Use water spray or fog to knock down fire fumes if possible.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen

Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

General measures

Evacuate area. Ensure adequate air ventilation. Wear self-contained breathing apparatus when entering area unless atmosphere is proven to be safe. Stop leak if safe to do so.

6.2 Reference to other sections

For further information refer to section 8: Exposure controls/personal protection

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Wear leather safety gloves and safety shoes when handling cylinders. Protect cylinders from physical damage, do not drag, roll, slide or drop. While moving cylinder, always keep in place removable valve cover. Never attempt to lift a cylinder by its cap, the cap is intended solely to protect the valve. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Never insert an object (e.g, wrench, screwdriver, pry bar) into cap openings, doing so may damage the valve and cause a leak. Use an adjustable strap wrench to remove over-tight or rusted caps. Slowly open the valve. If the valve is hard to open, discontinue use and contact your supplier. Close the container valve after each use, keep closed even when empty. Never apply flame or localized heat directly to any part of the container. High temperatures may damage the container and could cause the pressure relief device to fail prematurely, venting the container contents. For other precautions in using this product, see section 16.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, well-ventilated place. Store and use with adequate ventilation. Store only where temperature will not exceed 125°F (52°C). Firmly secure containers upright to keep them from falling or being knocked over. Install valve protection cap, if provided, firmly in place by hand. Store full and empty containers separately. Use a first-in, first-out inventory system to prevent storing full containers for long periods, Other precautions for handling and storage are When handling product under pressure, use piping and equipment adequately designed to withstand the pressures to be encountered. Never work on a pressurized system. Use a back flow preventive device in the piping. Gases can cause rapid suffocation because of oxygen deficiency; store and use with adequate ventilation. If a leak occurs, close the container valve and blow down the system in a safe and environmentally correct manner in

Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen

Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

compliance with all international, federal/national, state/provincial, and local laws; then repair the leak. Never place a container where it may become part of an electrical circuit.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

No additional information available.

8.2 Appropriate engineering controls

Use a local exhaust system with sufficient flow velocity to maintain an adequate supply of air in the worker's breathing zone. Mechanical (general). General exhaust ventilation may be acceptable if it can maintain an adequate supply of air.

8.2 Individual protection measures and personal protective equipment



Face shield



Gloves

Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen
Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022



Safety glasses

Hand protection

Wear work gloves when handling containers. Wear heavy rubber gloves where contact with product may occur.

Eye protection

Wear goggles and a face shield when transfilling or breaking transfer connections. Select in accordance with the current CSA standard Z94.3, "Industrial Eye and Face Protection", and any provincial regulations, local bylaws or guidelines.

Skin and body protection

As needed for welding, wear hand, head, and body protection to help prevent injury from radiation and sparks. (See ANSI Z49.1.) At a minimum, this includes welder's gloves and protective goggles, and may include arm protectors, aprons, hats, and shoulder protection as well as substantial clothing.

Respiratory protection

Use respirable fume respirator or air supplied respirator when working in confined space or where local exhaust or ventilation does not keep exposure below TLV. Select in accordance with provincial regulations, local bylaws or guidelines. Selection should be based on the current CSA standard Z94.4, "Selection, Care, and Use of Respirators." Respirators should also be approved by NIOSH and MSHA. For emergencies or instances with unknown exposure levels, use a self-contained breathing apparatus (SCBA).

Environmental exposure protection

Refer to local regulations for restriction of emissions to the atmosphere.

Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen

Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

Other information

Safety shoes for general handling at customer sites. Metatarsal shoes and cuffless trousers for cylinder handling at packaging and filling plants. Select in accordance with the current CSA standard Z195, "Protective Foot Wear", and any provincial regulations, local bylaws or guidelines. For working with flammable and oxidizing materials, consider the use of flame resistant anti-static safety clothing.

SECTION 9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Gas
Appearance	Colourless gas
Molecular mass	28 g/mol
Colour	Colourless
Odour	No odour warnings
Odour threshold	No data available
pH	Not applicable
pH solution	No data available
Relative evaporation rate (butylacetate = 1)	No data available
Relative evaporation rate (ether=1)	Not applicable
Melting point	-210 C
Freezing point	No data available
Boiling point	-195.8 C
Flash point	No data available
Critical temperature	-149.9 C
Auto ignition temperature	Not applicable
Decomposition temperature	No data available
Vapour pressure	Not applicable
Vapour pressure at 50 C	No data available
Critical pressure	3390 kPa
Relative vapour density at 20 C	0.00115 (>21.1)
Relative density	No data available
Relative density of saturated gas/air mixture	No data available
Density	1.16 kg/m ³
Relative gas density	0.97
Solubility	Water 20 mg/l

Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen

Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

Log Pow	Not applicable
Log Kow	Not applicable
Viscosity Kinematic	Not applicable
Viscosity Dynamic	Not applicable
Viscosity Kinematic (calculated value) (40 C)	No data available
Explosive properties	Not applicable
Oxidizing properties	None
Flammability (solid, gas)	Non-Flammable

9.2 Other information

Gas group	Compressed gas
Additional information	None

SECTION 10: Stability and reactivity

10.1 Reactivity

Under certain conditions, nitrogen can react violently with lithium, neodymium, titanium (above 1472°F/800°C), or magnesium to form nitrides. At high temperature, it can also combine with oxygen and hydrogen.

10.2 Chemical stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

May occur.

10.4 Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5 Incompatible materials

None.

Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen
Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

10.6 Hazardous decomposition products

None.

SECTION 11: Toxicological information

Likely routes of exposure: Inhalation

11.1 Information on toxicological effects

Acute toxicity (oral)	Not classified
Acute toxicity (dermal)	Not classified
Acute toxicity (inhalation)	Not classified

Skin corrosion/irritation	Not classified pH not applicable
Serious eye damage/irritation	Not classified pH not applicable
Respiratory or skin sensitization	Not classified
Germ cell mutagenicity	Not classified
Carcinogenicity	Not classified
Reproductive toxicity	Not classified
Specific target organ toxicity (single exposure)	Not classified
Specific target organ toxicity (repeated exposure)	Not classified
Aspiration hazard	Not classified

SECTION 12: Ecological information

12.1 Toxicity

Ecology: No ecological damage has been caused by this product.

Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen

Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

12.2 Persistence and degradability

Nitrogen

Persistence and degradability	No ecological damage caused by this product
-------------------------------	---

12.3 Bioaccumulative potential

Nitrogen

Log Pow	Not applicable
Log Kow	Not applicable
Bioaccumulative potential	No ecological damage caused by this product

12.4 Mobility in soil

Nitrogen

Mobility in soil	No data available
Log Pow	Not applicable
Log Kow	Not applicable
Ecology – soil	No ecological damage caused by this product

12.5 Other adverse effects

Effects on the ozone layer: None

Effects on global warming: None

SECTION 13: Disposal considerations

13.1 Disposal methods

Waste disposal recommendations

Dispose of contents/container in accordance with local/regional/national/international regulations. Contact supplier for any special requirements.



Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen
Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

SECTION 14: Transport information

14.1 Basic shipping description in accordance with TDG

UN-No (TDG)	UN 1066
TDG primary hazard classes	2.2-class 2.2-non-flammable, nontoxic gas
Proper shipping name	Nitrogen, Compressed
Explosive limit and limited quantity index	0.125 L
Passenger carrying road vehicle or railway vehicle index	75 L

14.2 Air and Sea transport

IMDG

UN-No. (IMDG)	1066
Proper shipping Name (IMDG)	Nitrogen, Compressed
Class (IMDG)	2-Gases
MFAG-No	121

IATA

UN-No. (IATA)	1066
Proper shipping name (IATA)	Nitrogen, Compressed
Class (IATA)	2



Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen

Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

SECTION 15: Regulatory information

15.1 National Regulations

Nitrogen

Listed on the Canadian DSL (Domestic Substances List)

15.2 International regulations

Argon

<p>Listed on the AICS (Australian Inventory of Chemical Substances). Listed on the IECSC (Inventory of Existing Chemical Substances produced or imported in China). Listed on the ECC inventory EINECS (European inventory of existing commercial chemical substances). Listed on the Korean ECL (Existing chemical list). Listed on the NZIoC (New Zealand inventory of chemicals). Listed on the PICCS (Philippines inventory of chemicals and chemical substances). Listed on the United States TSCA (Toxic substances control act) inventory. Listed on the INSQ (Mexican national inventory of chemical substances).</p>

SECTION 16: Other information

16.1 Other information

Users of this product we recommend to study this SDS and become aware of the product hazards and safety information. To promote safe use of this product, a user should (1) notify employees, agents, and contractors of the information in this SDS and of any other known product hazards and safety information, (2) furnish this information to each purchaser of the product, and (3) ask each purchaser to notify its employees and customers of the product hazards and safety information. We believe that the information contained herein is current as of the date of this Safety Data Sheet. It is the user's obligation to determine the conditions of safe use of the product. To obtain current SDSs for these products, contact your sales representative, local distributor, or supplier.



Safety Data Sheet

According to the Hazardous Products Regulation

Trade name: Nitrogen

Product form: Substance

Print date: 11.1.2019

Revision date: 11.1.2022

NFPA Health hazard

0 - Exposure under fire conditions would offer no hazard beyond that of ordinary combustible materials.

NFPA Fire hazard

0 - Materials that will not burn.

NFPA Reactivity

0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

NFPA Specific hazard

This denotes gases which are simple asphyxiants.

HMIS III Rating Health

0 Minimal Hazard - No significant risk to health

HMIS III Rating Flammability

0 Minimal Hazard - Materials that will not burn

HMIS III Rating Physical

3 Serious Hazard - Materials that may form explosive mixtures with water and are capable of detonation or explosive reaction in the presence of a strong initiating source. Materials may polymerize, decompose, self-react, or undergo other chemical change at normal temperature and pressure with moderate risk of explosion.