

# Safety Data Sheet

## NITROGEN CYLINDER



Safety Data Sheet dated 19/4/2016, version 2  
This version cancels and substitutes any previous version

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Identification of the substance:

Trade name: NITROGEN CYLINDER

CAS number: 7727-37-9

EC number: 231-783-9

The transition time according to REACH Regulation, Article 23 is still not expired.

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

Recommended use:

cylinder for AC/R systems flushing

#### 1.3. Details of the supplier of the safety data sheet

Company:

ERRECOM SRL

Via Industriale, 14

Corzano (BS) Italy

Tel. +39 030/9719096

Competent person responsible for the safety data sheet:

lab@errecom.it


#### 1.4. Emergency telephone number

+39 02-6610-1029 Poison Control Center Niguarda Ca' Granda - Milano - ITALY

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

 Warning, Press. Gas, Contains gas under pressure may explode if heated..

Adverse physicochemical, human health and environmental effects:

No other hazards

#### 2.2. Label elements

Symbols:



Warning

Hazard statements:

H280 Contains gas under pressure; may explode if heated.

Precautionary statements:

P403 Store in a well-ventilated place.

Special Provisions:

None

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

#### 2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

In high concentrations may cause asphyxia.

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Identification of the substance:

Chemical characterization: NITROGEN

CAS number: 7727-37-9

EC number: 231-783-9

None.

#### 3.2. Mixtures

N.A.

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

In case of skin contact:

There shall be no significant skin hazard under normal use conditions.

In case of eyes contact:

There shall be no significant risk to eye contact in normal use.

In case of Ingestion:

Improbable route of exposure.

In case of Inhalation:

Remove victim to uncontaminated area wearing self contained breathing apparatus.

Keep victim warm and rested. Call a physician. Apply artificial respiration if breathing stopped.

#### 4.2. Most important symptoms and effects, both acute and delayed

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility / consciousness. The victims may not be aware of asphyxiation.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Obtain emergency medical intervention.

Treatment:

None

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

#### 5.2. Special hazards arising from the substance or mixture

Exposure to fire may cause containers to rupture or explode.

#### 5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

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### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Using the apparatus when entering area unless atmosphere is proved to be breathable.

Wear personal protection equipment.

Remove all sources of ignition.

Provide adequate ventilation.

Remove persons to safety.

See protective measures under point 7 and 8.

#### 6.2. Environmental precautions

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- Groped to stop release.
- 6.3. Methods and material for containment and cleaning up  
Ventilate the area.
- 6.4. Reference to other sections  
See also section 8 and 13

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### SECTION 7: Handling and storage

- 7.1. Precautions for safe handling
- Refer to the manufacturer's instructions for handling the container.
  - Do not allow backfeed into the container.
  - Protect cylinders from physical damage; do not drag, roll, slide or drop.
  - When moving cylinders, even for short distances, use appropriate means of handling designed to transport cylinders.
  - Leave the protective caps of the valves in place until the container has not been fixed to a wall or a work bench or placed in a stand and is ready for use.
  - If the operator encounters any problems during the operation of the valve discontinue use and contact your supplier.
  - Never groped to repair or modify container valves or safety devices.
  - Damaged valves should be reported immediately to the supplier.
  - Keep container valve outlets clean and free from contaminates particularly oil and water.
  - Replace the caps and valve caps and containers, where supplied as soon as container is disconnected from the equipment.
  - Close container valve after each use and when empty, even if still connected to equipment.
  - Never groped to transfer gases from one container to another.
  - Never use direct flame or electrical heating to increase the internal pressure of the container.
  - Do not remove or deface labels from the supplier for the identification of the cylinder contents.
  - The containers must be stored in vertical position and properly secured to prevent the risk of tipping.
  - Avoid contact with skin and eyes, inhalation of vapours and mists.
  - Don't use empty container before they have been cleaned.
  - Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.
  - Contaminated clothing should be changed before entering eating areas.
  - Do not eat or drink while working.
  - See also section 8 for recommended protective equipment.
- 7.2. Conditions for safe storage, including any incompatibilities
- Keep container below 50 ° C in a well ventilated.
  - Observe the regulations and local requirements regarding storage of containers.
  - The containers must not be stored in conditions that promote corrosion.
  - The containers must be stored in vertical position and properly secured to prevent the risk of tipping.
  - Stored containers should be periodically checked for general conditions and leakage.
  - The caps and / or the caps must be mounted.
  - Store containers in areas where there is risk of fire, away from heat and ignition sources.
  - Keep away from combustible material.
  - Always keep in a well ventilated place.
  - Incompatible materials:
    - None in particular.
  - Instructions as regards storage premises:
    - Cool and adequately ventilated.
- 7.3. Specific end use(s)
- None in particular

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### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters

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No occupational exposure limit available

DNEL Exposure Limit Values  
N.A.

PNEC Exposure Limit Values  
N.A.

8.2. Exposure controls

Eye protection:  
Although not expected eye contact under normal conditions of reasonably foreseeable use, you should use appropriate eye protection when handling this product.

Protection for skin:  
It is necessary to conduct an adequate skin protection to the operating conditions.

Protection for hands:  
Gloves with long cuffs.

Respiratory protection:  
We do not recommend the use of special respiratory protection equipment in normal conditions of use with adequate ventilation.

Thermal Hazards:  
None

Environmental exposure controls:  
None

Appropriate engineering controls:  
Whenever possible the release of asphyxiating gases, to be used for oxygen detectors. Provide adequate exhaust ventilation to general and local. Ensure exposure is well below the professional exposure limits (where available). Systems under pressure should be checked periodically to verify the absence of leaks. Consider the need for a system of work permits, for example for maintenance activities.

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### SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

|   |               |
|---|---------------|
| Appearance and colour:                        | gas colorless |
| Odour:  | odorless      |
| Odour threshold:                              | N.A.          |
| pH:   | N.A.          |
| Melting point / freezing point:               | -210°C        |
| Initial boiling point and boiling range:      | -196°C        |
| Solid/gas flammability:                       | N.A.          |
| Upper/lower flammability or explosive limits: | N.A.          |
| Vapour density:                               | N.A.          |
| Flash point:                                  | N.A.          |
| Evaporation rate:                             | N.A.          |
| Vapour pressure:                              | N.A.          |
| Relative density:                             | N.A.          |
| Solubility in water:                          | N.A.          |
| Solubility in oil:                            | N.A.          |
| Partition coefficient (n-octanol/water):      | N.A.          |
| Auto-ignition temperature:                    | N.A.          |
| Decomposition temperature:                    | N.A.          |
| Viscosity:                                    | N.A.          |
| Explosive properties:                         | N.A.          |
| Oxidizing properties:                         | N.A.          |

9.2. Other information

|                                      |      |
|--------------------------------------|------|
| Miscibility:                         | N.A. |
| Fat Solubility:                      | N.A. |
| Conductivity:                        | N.A. |
| Substance Groups relevant properties | N.A. |

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### SECTION 10: Stability and reactivity

- 10.1. Reactivity  
Stable under normal conditions
  - 10.2. Chemical stability  
Stable under normal conditions
  - 10.3. Possibility of hazardous reactions  
None
  - 10.4. Conditions to avoid  
Avoid spills and leakage.  
Avoid accumulation of product in enclosed spaces.
  - 10.5. Incompatible materials  
None in particular.
  - 10.6. Hazardous decomposition products  
None.
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### SECTION 11: Toxicological information

- 11.1. Information on toxicological effects  
Toxicological information of the substance:  
N.A.

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as N.A.:

- a) acute toxicity;
  - b) skin corrosion/irritation;
  - c) serious eye damage/irritation;
  - d) respiratory or skin sensitisation;
  - e) germ cell mutagenicity;
  - f) carcinogenicity;
  - g) reproductive toxicity;
  - h) STOT-single exposure;
  - i) STOT-repeated exposure;
  - j) aspiration hazard.
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### SECTION 12: Ecological information

- 12.1. Toxicity  
Adopt good working practices, so that the product is not released into the environment.  
N.A.
  - 12.2. Persistence and degradability  
N.A.
  - 12.3. Bioaccumulative potential  
N.A.
  - 12.4. Mobility in soil  
N.A.
  - 12.5. Results of PBT and vPvB assessment  
vPvB Substances: None - PBT Substances: None
  - 12.6. Other adverse effects  
None
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### SECTION 13: Disposal considerations

- 13.1. Waste treatment methods  
Recover if possible. In so doing, comply with the local and national regulations currently in force.
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### SECTION 14: Transport information

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- 14.1. UN number  
ADR-UN Number: 1066  
IATA-UN Number: 1066  
IMDG-UN Number: 1066
- 14.2. UN proper shipping name  
ADR-Shipping Name: NITROGEN, COMPRESSED  
IATA-Shipping Name: NITROGEN, COMPRESSED  
IMDG-Shipping Name: NITROGEN, COMPRESSED
- 14.3. Transport hazard class(es)  
ADR-Class: 2  
IATA-Class: 2.2  
IMDG-Class: 2.2
- 14.4. Packing group  
ADR-Packing Group: -  
IATA-Packing group: -  
IMDG-Packing group: -
- 14.5. Environmental hazards  
ADR-Environmental Pollutant: No  
IMDG-Marine pollutant: No
- 14.6. Special precautions for user  
ADR-Subsidiary risks: -  
ADR-S.P.: 653  
ADR-Tunnel Restriction Code: 3 (E)  
IATA-Passenger Aircraft: 200  
IATA-Subsidiary risks: -  
IATA-Cargo Aircraft: 200  
IATA-S.P.: A69  
IATA-ERG: 2L  
IMDG-EmS: F-C , S-V  
IMDG-Subsidiary risks: -  
IMDG-Storage category: Category A  
IMDG-Storage notes: -
- 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code  
N.A.

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### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) 2015/830  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

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Restrictions related to the product:

No restriction.

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 2003/105/CE ('Activities linked to risks of serious accidents') and subsequent amendments.

Regulation (EC) nr 648/2004 (detergents).

1999/13/EC (VOC directive)

Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II):

N.A.

15.2. Chemical safety assessment

No

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### SECTION 16: Other information

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities

SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van Nostrand Reinold

CCNL - Appendix 1

Insert further consulted bibliography

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality.

It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

|             |  |
|-------------|--|
| ADR:        | European Agreement concerning the International Carriage of Dangerous Goods by Road. |
| CAS:        | Chemical Abstracts Service (division of the American Chemical Society).              |
| CLP:        | Classification, Labeling, Packaging.   |
| DNEL:       | Derived No Effect Level.   |
| EINECS:     | European Inventory of Existing Commercial Chemical Substances.                       |
| GefStoffVO: | Ordinance on Hazardous Substances, Germany.  |
| GHS:        | Globally Harmonized System of Classification and Labeling of Chemicals.              |
| IATA:       | International Air Transport Association.   |
| IATA-DGR:   | Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  |
| ICAO:       | International Civil Aviation Organization.   |
| ICAO-TI:    | Technical Instructions by the "International Civil Aviation Organization" (ICAO).    |
| IMDG:       | International Maritime Code for Dangerous Goods.                                     |
| INCI:       | International Nomenclature of Cosmetic Ingredients.                                  |
| KSt:        | Explosion coefficient.   |
| LC50:       | Lethal concentration, for 50 percent of test population.                             |
| LD50:       | Lethal dose, for 50 percent of test population.                                      |
| LTE:        | Long-term exposure.  |
| PNEC:       | Predicted No Effect Concentration.   |
| RID:        | Regulation Concerning the International Transport of Dangerous Goods by Rail.        |
| STE:        | Short-term exposure.   |

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STEL: Short Term Exposure limit.  
STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day.  
(ACGIH Standard).  
WGK: German Water Hazard Class.