



SAFETY DATA SHEET

In compliance with EC Regulations No.: 1907/2006, 830/2015 and 1272/2008 (CLP).

Date last modified: 26 October 2020 - Version 4.0

1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY

1.1 Product Identifier

Product Name: NITROGEN 99.999%

Product Code #: 330232

CAS No.: 7727 – 37 - 9

Chemical Formula: N₂

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

Relevant identified uses

Industrial and professional uses only. Perform risk assessment prior to use.

Uses advised against: This product is not recommended for any industrial, professional or consumer use other than the Intended Uses above and the instructions written in this Safety Data Sheet.

1.3 Details of the supplier of the safety data sheet

Company/undertaking identification

Supplier/Manufacturer:

Marichem Marigases Hellas SA

Sfaktirias 64,

185 45 Piraeus,

Greece

Tel. No.: ++30 210 4148800

Fax No.: ++30 210 4133985

<http://www.marichem-marigases.com>

e-mail: mail@marichem-marigases.com

1.4 Emergency telephone number

Tel. No.: ++30 210 4148800 (including working hours)

Emergency Information:

Inside U.S. and Canada: (800)-424-9300 (CHEMTREC)

Outside U.S. and Canada: 1-703-527-3887 (CHEMTREC)

National Emergency Centre (Greece): ++30 210 7793777

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Hazard Class and Category Code Regulation EC 1272/2008 (CLP)

Physical hazards

Press. Gas (Compressed gas) - Contains gas under pressure; may explode if heated.

Hazard Statement(s)

H280: Contains gas under pressure; may explode if heated.

2.2. Label elements

Labelling Regulation EC 1272/2008 (CLP)

Hazard pictograms:



GHS04

Signal word: Warning

Hazard Statement(s)

H280: Contains gas under pressure; may explode if heated.
EIGA-As: Asphyxiant in high concentrations.

Precautionary Statements

Prevention

None

Response

None.

Storage

P403: Store in a well ventilated place.

Disposal

None.

Mixture/substance classification and labelling according to Directive 67/548/EEC, European Dangerous Preparations Directive (1999/45/EC), European Regulation 648/2004 and their amendments.

Not classified as hazardous to users. No special information required according to EC directives.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Composition:

Substance	CAS Number	Proportion	Classification*
Nitrogen (N ₂)	7727 – 37 - 9	99.999%	H280
Other ingredients non-hazardous	-	0.001%	-

Impurities/Components. Contains no other components, which will influence the classification of the product.

*See section 16 for the full text of Hazard Code(s) declared above.

Occupational Exposure Limits, if available, are listed in section 8.

4. FIRST AID MEASURES

4.1. Description of first aid measures

First Aid General Information

Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

First Aid Inhalation

Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

First Aid Skin / Eye

Adverse effects not expected from this product.

First Aid Ingestion

Ingestion is not considered a potential route of exposure.

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

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

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

None.

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media

All known extinguishants can be used.

5.2. Special hazards arising from the substance or mixture**Specific hazards**

Exposure to fire may cause containers to rupture/explode.

Hazardous combustion products

None.

5.3. Advice for fire-fighters**Specific methods**

If possible, stop flow of product. Move container away or cool with water from a protected position.

Special protective equipment for fire-fighters

In confined space use self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURE**6.1. Personal precautions, protective equipment and emergency procedures**

Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

6.2. Environmental precautions

Try to stop release.

6.3. Methods and material for containment and cleaning up

Ventilate area.

6.4. Reference to other sections

See also sections 8 and 13.

7. HANDLING AND STORAGE**7.1. Precautions for safe handling**

Suck back of water into the container must be prevented. Do not allow backfeed into the container. Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt. Refer to supplier's handling instructions. Only experienced and properly instructed persons should handle gases under pressure. Protect cylinders from physical damage; do not drag, roll, slide or drop. Never use direct flame or electrical heating devices to raise the pressure of a container. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use. Ensure the complete gas system has been (or is regularly) checked for leaks before use. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Replace valve outlet caps or plugs and container caps where

supplied as soon as container is disconnected from equipment. Keep container valve outlets clean and free from contaminants particularly oil and water. Never attempt to transfer gases from one cylinder/container to another. Do not smoke while handling product. The substance must be handled in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Keep container below 50°C in a well ventilated place. Observe all regulations and local requirements regarding storage of containers. Containers should not be stored in conditions likely to encourage corrosion. Containers should be stored in the vertical position and properly secured to prevent falling over. Stored containers should be periodically checked for general conditions and leakage. Container valve guards or caps should be in place. Store containers in location free from fire risk and away from sources of heat and ignition. Keep away from ignition sources (including static discharges). Keep away from combustible materials. Secure cylinders to prevent them from falling.

7.3. Specific end use(s)

None.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No occupational exposure limit.

8.2. Exposure controls

Appropriate engineering controls

Product to be handled in a closed system. The substance must be handled in accordance with good industrial hygiene and safety procedures. Consider work permit system e.g. for maintenance activities. Systems under pressure should be regularly checked for leakages. Provide adequate general or local ventilation. Oxygen detectors should be used when asphyxiating gases may be released.

Personal protective equipment

Eye and face protection

Wear eye protection to EN 166 when using gases.

kin protection

Other protection

Wear leather safety gloves and safety shoes when handling cylinders.

Respiratory protection

Not required

Thermal hazards

Not required

Environmental Exposure Controls

Specific risk management measures are not required beyond good industrial hygiene and safety procedures. Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information

Appearance/Colour: Colourless gas.

Odour: None.

Melting point: -210 °C

Boiling point: -196 °C

Flash point: Not applicable for gases and gas mixtures.

Flammability range: Non flammable.

Vapour Pressure 20 °C: Not applicable.

Relative density, gas: 0.97

Solubility in water: 20 mg/l

Autoignition temperature: Not applicable.

Explosive properties:

Explosive acc. EU legislation: Not explosive.

Explosive acc. transp. reg.: Not explosive.

Oxidising properties: Not applicable.

Molecular weight: 28 g/mol

Critical temperature: -147 °C

Relative density, liquid: 0.8

9.2. Other information

None.

10. STABILITY AND REACTIVITY

10.1. Reactivity

Unreactive under normal conditions.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

No reaction with any common materials in dry or wet conditions.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

General

No known toxicological effects from this product.

12. ECOLOGICAL INFORMATION

12.1. Toxicity

No ecological damage caused by this product.

12.2. Persistence and degradability

The substance is naturally occurring.

12.3. Bioaccumulative potential

Not applicable.

12.4. Mobility in soil

The substance is a gas, not applicable.

12.5. Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6. Other adverse effects

Not applicable.

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Do not discharge into any place where its accumulation could be dangerous. Vent to atmosphere in a well ventilated place. Contact supplier if guidance is required.

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14. TRANSPORT INFORMATION

14.1 Proper shipping name: Nitrogen, compressed

14.2 LAND TRANSPORT

UN number: 1066 RID-class: 2.2
ADR class: 2.2 ADR/RID packing group: N/A
Labeling: 2.2 - Non-flammable non-toxic gas
Packing group (Packing Instruction): P200

14.3 SEA TRANSPORT

UN number: 1066 IMDG packing group: N/A
IMDG class: 2.2 EmS: F-C, S-V
Labeling: 2.2 - Non-flammable non-toxic gas
Packing group (Packing Instruction): P200

14.4 AIR TRANSPORT

UN number: 1066 ICAO packing group: N/A
ICAO class: 2.2
Labeling: 2.2 - Non-flammable non-toxic gas
Packing group (Packing Instruction): P200

14.5 Other Transport Information

Avoid transport on vehicles where the load space is not separated from driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident.

Before transporting product containers ensure that: they are firmly secured and cylinder valve is closed and not leaking, valve outlet cap nut or plug (where provided) is correctly fitted, there is adequate ventilation, compliance with applicable regulations.

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture.

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

15.2 Chemical Safety Assessment

A CSA does not need to be carried out for this product.

16. OTHER INFORMATION

16.1 Full text of Hazard Code(s) referred in Section 3.

H280: Contains gas under pressure; may explode if heated.

16.2 Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail).

IMDG: International Maritime Code for Dangerous Goods.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organization.

bw: Body weight.

Carc.: Carcinogenicity.

CAS number: Chemical Abstracts Service number.

CLP: Classification Labelling Packaging Regulation.

CSA: Chemical Safety Assessment.

CSR: Chemical Safety Report.

DNEL: Derived No Effect Level.

dw: Dry weight.

EC number: EINECS and ELINCS number.

EC: European Commission.

EC50: Half maximal effective concentration.

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EmS: Emergency Schedule.

ERC: Environmental Release Category.

ES: Exposure scenario.

food: oral feed.
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
Irrit.: Irritation.
LC50: Lethal concentration, 50 %.
LD50: Median Lethal dose.
LOAEC: Lowest Observed Adverse Effect Concentration.
LOAEL: Lowest Observed Adverse Effect Level.
MK value: Maximum Concentration value.
NCO: An international corporation that provides customer service contracting.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
NOEC: No Observed Effect Concentration.
OECD: Organisation for Economic Cooperation and Development.
PBT: Persistent, Bioaccumulative and Toxic.
PNEC: Predicted No Effect Concentration.
PROC: Process category.
REACH: The Registration, Evaluation, Authorisation and Restriction of Chemicals.
Resp.: Respiratory.
Sens.: Sensitization.
STEL value: Short Term Exposure Limit value.
STOT RE: Specific target organ toxicity — repeated exposure.
STOT SE: Specific target organ toxicity — single exposure.
STOT: Specific Target Organ Toxicity.
STP: Sewage Treatment Plant.
SU: Sector of use.
Tox.: Toxicity.
TWA value: Time Weighted Average value.
vPvB: Very Persistent and Very Bioaccumulative.

16.3 Notice to reader

All information, instructions and statements contained in this Material Safety Data Sheet are compiled in accordance with European Directives, corresponding national legislation and on the basis of information given by our suppliers.

The information disclosed in this Material Safety Data Sheet (which supersedes all previous versions) is believed to be correct, at the date of issue, to the best of our current knowledge and experience. It only relates to the specific product designated herein and it may not be valid when said product is used in combination with any other products or in any processed form, unless specified in the text. This document aims to provide the necessary health and safety information of the product and is not to be considered a warranty or quality specification. It is the responsibility of the recipient of this Material Safety Data Sheet to ensure that information given here is read and understood by all who use, handle, dispose of or in any way come in contact with the product.

Also, it is the responsibility of the user to comply with local legislation relating to safety, health, environment and waste management. Data and information provided concerning the product are informative, exclusively presented to the customer.