

AIR Medical

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

1.1. Product identifier

Trade name PRESSURIZED AIR

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

Relevant uses identified Industrial and professional. Carry out a risk analysis before use
Test or calibration gas
Contact the supplier for more information on use

Uses advised against Consumer use

1.3. Information regarding the supplier of the safety data sheet

Company identification SARL RAYANOX
ZA Bethioua Wilaya of Oran, Algeria
Tel: 041-79-35-22
Fax: 041-79-32-23
Contact@rayanox.co
sarlrayanox@gmail.com

1.4. Emergency call number

Emergency call number Tel: +21365550342

SECTION 2: Hazard Identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Physical hazards Gas under pressure: Compressed gas H280

2.2. Label elements

Labeling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS04

Signal word (CLP)

: Hazard

Hazard statements (CLP)

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

Precautionary statements (CLP)

– Storage : P403 - Store in a well-ventilated area.

2.3. Other dangers

: None).

SECTION 3: Composition/information on ingredients

3.1. Substances: Not applicable

3.2. Mixtures

NAME	Product identifier	%	Impurities in ppm				%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
			CnHm	H2O	CO2	CO		
Nitrogen	<u>(CAS No.) 7727-37-9</u> <u>(EC No.) 231-783-9</u>	78					78	Press. Gas (Comp.), H280
Oxygen	<u>CAS No. 7782-44-7</u> <u>(EC No.) 231-956-9</u>	22	≤0.1ppm	≤3ppm	≤1ppm	≤1ppm	22	Ox. Gas 1, H270 Press. Gas (Comp.), H280

SECTION 4: First aid

4.1. Description of first aid

- Inhalation No adverse effects expected with this product
- Skin contact No adverse effects expected with this product
- Eye contact No adverse effects expected with this product
- Ingestion Ingestion is not considered a possible mode of exposure

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

No effects on living tissues

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

: None).

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

- Suitable extinguishing agents Water spray or cloud
- Unsuitable extinguishing agents Do not use a jet of water to extinguish.

5.2. Special hazards arising from the substance or mixture

Specific risks Exposure to fire may cause containers to rupture and explode
Hazardous combustion products None).

5.3. Advice for firefighters

Specific methods Use extinguishing media suitable for the surrounding fire. Exposure to fire and heat may cause gas containers to rupture. Cool exposed containers with water spray from a protected location. Do not allow watering water used in emergency cases to flow into the gutters.
Use water spray or cloud to reduce the fumes to the ground if possible
Move containers from fire area if it can be done without risk.

Special protective equipment for firefighters

Use a self-contained breathing apparatus (SCBA)
Protective clothing and self-contained breathing equipment for firefighters
Standard EN 137 - Autonomous open circuit compressed air device with full face mask
Standard EN 469: protective clothing for firefighters. Standard EN 659: Protective gloves
For firefighters

SECTION 6: Measures to be taken in the event of accidental release

6.1. Personal precautions, protective equipment and emergency procedures

Act according to the local emergency plan.
Stay upwind of the wind

6.2. Precautions for environmental protection

None).

6.3. Methods and material for containment and cleaning up

None).

6.4. Reference to other SECTIONS

See also sections 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Safety when using the product The product must be handled in accordance with good industrial hygiene and safety procedures.
Only persons with appropriate experience and training should handle gases under pressure.
Consider adding pressure safety valve(s) to the installation.
You ensure that the entire gas installation has been (or is regularly) checked for the absence of leaks, before use
Do not smoke while handling the product.
Use only specified equipment appropriate for this product and its operating pressure and temperature. Contact your gas supplier if in doubt.
Refer to the supplier's instructions for handling the container.
Prohibit products from rising into the container
Protect cylinders from physical damage, do not pull, roll, slide, drop
To move the bottles even a short distance, use a cart (bottle rolls, etc.), designed for transporting bottles
Leave the tap protection cap in place until the container is again secured either by a wall or support or placed in a container or placed in position for use.
If the user encounters any difficulty opening or closing the cylinder valve, the user should discontinue use and contact the supplier
Never attempt to repair or modify a container valve or its pressure relief devices.
Damaged faucets should be reported immediately to the supplier
Keep tap outlets from containers clean and not contaminated, particularly with oil or water.

Safety when handling the gas container

If the container has been equipped with one, as soon as it has been disconnected from the installation, replace the cap or the tap outlet cap.

Close the container tap after each use and when empty, even if it is still connected to the equipment.

Never attempt to transfer gases from a bottle/container into another container.

Never use a direct flame or electric heater to increase the pressure in the container.

Do not remove or damage the labels put by the supplier to identify the contents of the bottle.

Prevent water from being drawn into the container.

7.2. Conditions for safe storage, including any incompatibilities

Follow all local regulations and requirements for container storage.

Containers should not be stored in conditions likely to aggravate corrosion.

Container valve covers or caps must be in place.

Containers must be stored in an upright position and secured to prevent falling.

Containers in stock should be periodically checked for general condition and absence of leaks.

Store the container in a well-ventilated area, at a temperature below 50°C

Store containers in areas not exposed to the risk of fire and away from sources of heat and ignition.

Keep away from combustible materials

7.3. Specific end use(s)

: None).

SECTION 8: Exposure controls/personal protection

8.1. Control Settings

OEL (Occupational Exposure Limits)

: Not available.

DNEL (Derived No Effect Dose)

: Not available.

PNEC (Predicted No Effect Concentration(s))

: Not available.

8.2. Exposure controls

8.2.1. Appropriate technical controls

Pressure equipment should be checked regularly for leaks

Think about work permits, e.g. for maintenance.

8.2.2. Personal protective equipment

A risk analysis of the use of the product must be conducted and documented in all workplaces affected by the use of the product in order to choose personal safety equipment regarding the identified risks. The following recommendations should be considered

- Eye/face protection

Wear tight safety glasses and a face shield when transferring or disconnecting transfer lines.

Standard EN 166 - Individual eye protection - Specifications.

- Skin protection
 - Hand protection
 - Miscellaneous

Wear protective gloves when handling gas cylinders.

Standard EN 388-Protective gloves against mechanical risks.

Wear safety shoes when handling cylinders.

Standard EN ISO 20345: Personal Protective Equipment - safety shoes

- Respiratory protection
- Thermal risks

None are necessary

None are necessary

8.2.3. Ambient exposure controls

None are necessary

SECTION 9: Physical and chemical properties

Information on essential physical and chemical properties

Appearance

- Physical state at 20°C / 101.3kPa
- Color

: Gas

: Colorless.

Smell

: Scentsless

Olfactory threshold

: Detection of thresholds by smell is subjective and inappropriate for warning in the event of overexposure

pH

: Not applicable.

Melting point / Freezing point	: -Not applicable to gases and gas mixtures
Boiling point	: -Not applicable to gases and gas mixtures
Flash point	: Not applicable to gases and gas mixtures.
Evaporation rate	: Not applicable to gases and gas mixtures.
Flammability (solid, gas)	: Non-flammable.
Explosive limits	: Non-flammable.
Vapor pressure [20°C]	: Not applicable.
Vapor pressure [50°C]	: Not applicable.
Vapor density	: Not applicable.
Relative density, liquid (water=1)	: 1
Relative density, gas (air=1)	: Not applicable.
Water solubility	: Unknown, but considered poorly soluble
Partition coefficient n-octanol/water (Log Kow)	: Not applicable to inorganic gases
Auto-ignition temperature	: Non-flammable.
Decomposition temperature	: Not applicable.
Viscosity	: No reliable data available.
Explosive properties	: Not applicable.
Oxidizing properties	: None).
Other information	
Molar mass	29 g/mol

SECTION 10: Stability and reactivity

10.1. Reactivity

No reactivity hazard other than the effects described in the sections below
Stable under normal conditions.

10.2. Chemical stability

10.3. Possibility of hazardous reactions

None).

10.4. Conditions to avoid

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

10.5. Incompatible materials

For further information on compatibility, refer to ISO 11114.
Consult supplier for specific recommendations

10.6. Hazardous decomposition products

: None).

SECTION 11: Toxicological information

11.1. Information on toxicological effects

acute toxicity	: This product has no known toxicological effects.
Skin corrosion/irritation	: No known effects with this product.
Serious eye damage/eye irritation	: No known effects with this product.
Respiratory or skin sensitization	: No known effects with this product.
Cell mutagenicity	: No known effects with this product.
Carcinogenicity	: No known effects with this product.
Toxic for reproduction: fertility	: No known effects with this product.
Toxic for reproduction: fetus	: No known effects with this product.
Specific target organ toxicity — single exposure	: No known effects with this product.
Specific target organ toxicity – repeated exposure	: No known effects with this product.
Inhalation hazard	: Not applicable to gases and gas mixtures

SECTION 12: Ecological information

12.1. Toxicity

Assessment	This product is ecologically safe.
EC50 48h - Daphnia magna [mg/l]	No data available.
EC50 72h - Algae [mg/l]	No data available.
LC50 96 Hours - fish [mg/l]	No data available.

12.2. Persistence and degradability

Assessment	This product is ecologically safe.
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12.3. Bioaccumulation potential

Assessment	This product is ecologically safe.
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12.4. Mobility in the ground

Assessment	Due to its high volatility, pollution of soil or water by this product is unlikely. Penetration into the ground not likely.
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12.5. Results of PBT and VPVB assessments

Assessment

Not classified as PBT or vPvB.

12.6. Other adverse effects

Effect on the ozone layer

: None).

Effect on global warming

: None).

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

List of hazardous waste

16 05 04: Gases in pressure vessels (including halons) containing substances Dangerous.

13.2. Further information

None).

SECTION 14: Transport information

14.1. UN number

UN number

: 1002

14.2. UN proper shipping name

Transport by road/rail (ADR/RID)

PRESSURIZED AIR

Air transport (ICAO-TI / IATA-DGR)

Air, Compressed

Transport by sea (IMDG)

COMPRESSED AIR

14.3. Transport hazard class(es)

Labeling



2.2: Non-flammable, non-toxic gases.

Transport by road/rail (ADR/RID)

Class

:2

Classification code

: 1A

Danger no.

: 20

Restriction of passage in tunnels

: E - Prohibition on crossing category E tunnels

Transport by sea (IMDG)

Class or division / Subsidiary risk(s)

: 2.2 (5.1)

14.4. Packing group

Transport by road/rail (ADR/RID)

: Not applicable

Air transport (ICAO-TI / IATA-DGR)

: Not applicable

Transport by sea (IMDG)

: Not applicable

14.5. Environmental hazards

Transport by road/rail (ADR/RID)

: None).

Air transport (ICAO-TI / IATA-DGR)

: None).

Transport by sea (IMDG)

: None).

14.6. Special precautions to be taken by the user

Packaging instruction(s)

Transport by road/rail (ADR/RID)

: P200

Air transport (ICAO-TI / IATA-DGR)

Passenger and cargo aircraft

: 200

Cargo plane only

: 200

Transport by sea (IMDG)

P200

Precautionary measures for transport

Avoid transport in vehicles where the load compartment is not separated from the driver's cab.

Ensure that the vehicle driver is aware of the potential hazards of the load and the steps to take in the event of an accident or other emergency situation.

Before transporting containers:

Ensure there is adequate ventilation.

Make sure containers are firmly secured

Make sure the cylinder valve is closed and not leaking

Make sure that the faucet outlet protection cap (if it exists) is correctly in place.

Ensure that the tap protection device (if it exists) is correctly put in place

14.7. Transport in bulk in accordance with Annex II of the Marpol Convention and the IBC Code

: Not applicable.

SECTION 15: Regulatory information

Safety, health and environmental regulations/legislation specific to the substance or mixture

EU regulations

Employment restrictions : None).
Seveso Directive 2012/18/EU (Seveso III) : Not covered.

National guidelines

National regulations: : Ensure that all national or local regulations are followed.

Chemical Safety Assessment

:A Chemical Risk Assessment (CSA) does not need to be carried out for this product.

SECTION 16: Other information

Indications of change : None).

Abbreviations and acronyms

ETA-Estimate of Acute Toxicity

CLP- Classification Labeling Packaging - Regulation (EC) No 1272/2008 relating to classification, labeling and packaging.

REACH - Registration, Evaluation, Authorization and Restriction of Chemicals – Regulation (EC) No 1907/2006 concerning the registration, evaluation and authorization of chemical substances, as well as the restrictions applicable to these substances.

EINECS - European Inventory of Existing Commercial Chemical Substances - Inventory

European marketed chemical substances

CAS number - numerical identifier assigned by the Chemical Abstract Service (USA)

PPE - Personal protective equipment

LC50 - Lethal Concentration - Lethal concentration for 50% of the population tested

RMM-Risk Management Measures

PBT - Persistent, Bioaccumulative and Toxic.

vPvB - very (very) Persistent and very (very) Bioaccumulative.

STOT - SE: Specific Target Organ Toxicity - Single Exposure; Specific target organ toxicity - Single exposure.

CSA - Chemical Safety Assessment

EN - European Norm - European Standard

UN - United Nations - United Nations

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road

IATA - International Air Transport Association - International Air Transport Association

IMDG Code - International Maritime Dangerous Goods Code - Code for maritime transport

Before using this product for a new application or for testing, a thorough material compatibility study and risk analysis should be performed.

The information given in this document is believed to be accurate at the time of printing.

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