



Mosa Industrial Corp.

Safety Data Sheet

1. Identification of substance and company

1.1 Product identification

Product name: 8 (8 g N₂O Chargers)
Chemical formula: Nitrous oxide
CAS: 10024-977-2
EC: 233-032-0
Index number: N/A

1.2 Details of the supplier of the safety data sheet

Mosa Industrial Corp.
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1.3 Emergency telephone number: +886 5 6361867

2. Hazard identification

Oxygen levels below 19.5% may cause asphyxiation. Exposure to nitrous oxide may cause nausea and breathing difficulties. High concentrations may also cause vasodilation, which may lead to circulatory collapse.

Warning! Pressurised container; protect from sunlight; do not expose to temperatures exceeding 50 C (122 F); keep out of reach of children; never dispose of a full container; never force open.

3. Composition/ingredients

Substance preparation
Chemical name: Nitrous oxide
CAS number: 10024-97-2
EC number (from EINECS): 233-032-0
UN number: UN1070



4. First-aid measures

Description of first-aid measures:

4.1 Inhalation

Move the affected person to fresh air; administer oxygen if the person shows breathing difficulties; if the person is not breathing, administer CPR and seek immediate medical attention.

4.2 Ingestion

Not expected under normal conditions due to its gaseous form.

4.3 Skin contact

Wash the affected area with soap and water; seek medical attention if irritation persists.

4.4 Eye exposure

Check for and remove contact lenses. Rinse the eyes with clean running water for 15 minutes while holding the eyelids open; seek medical attention if irritation persists.

5. Firefighting measures

5.1 Specific hazards

Contact with or exposure to fire may cause containers to explode.

5.2 General hazards

The product is not flammable or combustible. Combustion products include compounds of carbon, hydrogen and oxygen, including carbon monoxide.

5.3 Extinguishing media

Carbon dioxide, water, water spray, dry chemical and chemical foam.

5.4 Unusual fire and explosion hazards

Closed containers may explode as a result of pressure build-up when exposed to extreme heat. Do not store near heat sources.

5.5 Hazardous combustion products

Smoke, fumes, carbon oxides, etc.

6. Accidental release measures

6.1 Personal precautions

Evacuate the area. Use self-contained breathing apparatus if entry into the exposed area is required, unless the atmosphere has been proven safe to breathe. Ensure adequate ventilation.

6.2 Environmental precautions

Try to stop the release. Prevent the substance from entering sewers, basements, work areas and other places where accumulation may be hazardous.

6.3 Clean-up methods

Ventilate the area.

7. Handling and storage

Handling:

Keep the container closed when not in use; protect it from misuse and high temperatures; keep away from heat sources. Do not puncture the container. Do not attempt to refill it. Protect it from direct sunlight and heat.

Storage:

Do not heat. The maximum ambient temperature during use must not exceed 50 C (122 F). Store in a cool, dry place.

Packaging material:

Recyclable steel.

Recommended use:

Use the original container.

8. Exposure controls/personal protection

Exposure controls:

Local exhaust ventilation is required to control emissions near the source. Provide mechanical ventilation in enclosed spaces.

Personal protective measures:

Ensure adequate ventilation. Wear protective gloves and suitable protective equipment.

9. Physical and chemical properties

Physical and chemical properties of N₂O (E942 - 99% N₂O)

Gas density at 1 atm:	58.5 kg/cm ² at 20 C
Relative density (air=1):	1.53 at 20 C
Melting point (N ₂ O sublimes):	-90.96 C (-132 F)
Boiling point:	-88.48 C (-127 F)
Solubility (H ₂ O):	1.50 g/L at 15 C, 100 kPa
Odour and appearance:	Colourless, odourless gas

Parameters of 8 g N₂O charger

Metric units

Overall length (approx.)	65 mm
Body diameter	18 mm
Neck diameter	8.7 mm
Internal volume (approx.)	10.3 ml min.
Net weight of N ₂ O (approx.)	8 g
Tare weight of charger (approx.)	21 g
Gross weight of charger (approx.)	29 g
Burst pressure	>500 bar

Pressure/temperature properties at a filling density of 0.78 kg/litre:

Metric units

52 bar at 20 C
185 bar at 50 C
290 bar at 70 C
425 bar at 100 C
470 bar at 110 C

10. Stability and reactivity

Stability:

The product is stable.

Hazardous decomposition products:

Decomposition will not occur if the product is handled and stored correctly. In a fire, oxides of carbon, hydrocarbons, fumes and smoke may be produced.

11. Toxicological information

General information:

No known toxicological effects from this product.

Acute toxicity:

N₂O poisoning can rapidly cause circulatory problems. Symptoms include headache, dizziness and vomiting, which may lead to fainting.

See also sections 4.1-4.4 for treatment and first-aid measures.

Ingestion

Under normal handling conditions, the product cannot be ingested.

Skin contact

Direct contact may cause frostbite. The skin becomes numb; pain, redness and sores may occur later. Small amounts of nitrous oxide may be absorbed through the skin.

Eye contact

Splashes of liquefied gas in the eyes may cause irritation and frostbite.

Long-term effects

Prolonged exposure may cause liver and kidney damage. Suspected of impairing the ability to have healthy children.

12. Ecological information

No data are available on harmful effects of this material on the environment. Based on the chemical composition of the product, the mixture is assumed to be treatable in an acclimatised biological waste-treatment plant in limited quantities. This should nevertheless be evaluated and approved for each specific biological system. None of the ingredients in this mixture is classified as a marine pollutant.

13. Disposal considerations

Never dispose of at sea. Inform the waste contractor that the material is zinc-coated and chromium-stabilised steel. Never discard a full container.

14. Transport information

Non-hazardous

Class: 2.2

UN number: UN 1070

Proper shipping name: Receptacles, small, containing gas (gas cartridges)

(Receptacles with a capacity not exceeding 1,000 ml, containing only non-toxic, non-flammable components, without a release device, and not refillable.)

15. Regulatory information

EU regulation: Components of this product identified by CAS numbers are listed in the European Inventory of Existing Commercial Chemical Substances.

Hazard symbol:



Classification: Harmful

Risk phrases: R20 - (Harmful by inhalation)

16. Other information

The product has not undergone specific toxicity testing. Our risk assessment is based on information from similar products, product components, technical literature and/or professional experience.

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