



ACCORDING TO US CFR 1910.1200

1. SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

| | |
|--------------|-----------------------------------------------------|
| Product Name | NITROGEN, COMPRESSED. |
| Synonym(s) | CALIBRATING GAS MIX, NITROGEN, NITROGEN, TECHNICAL. |
| CAS No. | 7727-37-9 |
| EC No. | 231-783-9 |

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

| | |
|----------------------|-----------------|
| Identified Use(s) | Industrial gas. |
| Uses Advised Against | Not known. |

1.3 Details of the supplier of the safety data sheet

| | |
|------------------------|----------------------------------------------------------------------------|
| Company Identification | Hudson Technologies Company |
| Address | PO Box 1541 One Blue Hill Plaza Pearl River, New York USA |
| Postal code | 10965 |
| Telephone | +1 (800) 953 2244 |
| Fax | +1 (845) 512 6070 |
| E-mail | information@hudsontech.com |

1.4 Emergency telephone number

| | |
|-----------------|-------------------|
| Company | +1 (800) 501 4376 |
| CHEMTREC (U.S.) | +1 (800) 424 9300 |
| INTERNATIONAL | +1 (703) 527 3887 |

2. SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

US CFR 1910.1200 Gases under pressure; Press. Gas; Compressed gas.

2.2 Label elements

Product Name NITROGEN, COMPRESSED.

Hazard Pictogram(s)



GHS04

Signal Word(s)

Warning.

Hazard Statement(s)

H280: Contains gas under pressure; may explode if heated.
OSHA-H01: MAY DISPLACE OXYGEN AND CAUSE RAPID SUFFOCATION.

Precautionary Statement(s)

P202: Do not handle until all safety precautions have been read and understood.
P271+P403: Use and store only outdoors or in a well-ventilated place.
P304, P340, P313: IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention.
P410+P403: Protect from sunlight. Store in a well-ventilated place.

2.3 Other hazards

May cause asphyxiation when concentrations are sufficient to reduce oxygen below safe breathing levels.

2.4 Additional Information

CGA-PG05: Use a back flow preventive device in the piping.
CGA-PG10: Use only with equipment rated for cylinder pressure.
CGA-PG06: Close valve after each use and when empty.
CGA-PG02: Protect from sunlight when ambient temperature exceeds 52 °C (125 °F).

CGA-PG27: Read and follow the Safety Data Sheet (SDS) before use.

This SDS is available in languages other than English.

3. SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| HAZARDOUS INGREDIENT(S) | CAS No. | %W/W | Hazard Statement(s) | Hazard Pictogram(s) |
|-------------------------|-----------|------|----------------------------------|---------------------|
| Nitrogen | 7727-37-9 | 100 | Press. Gas, Compressed gas; H280 | GHS04 |

4. SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if necessary.

Skin Contact Wash skin with water.

Eye Contact Flush eyes with water for at least 15 minutes.

Ingestion Unlikely route of exposure.

4.2 Most important symptoms and effects, both acute and delayed

None anticipated.

4.3 Indication of any immediate medical attention and special treatment needed

In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

5. SECTION 5: FIREFIGHTING MEASURES

Non-flammable.

5.1 Extinguishing media

Suitable Extinguishing media As appropriate for surrounding fire.

Unsuitable extinguishing media None known.

5.2 Special hazards arising from the substance or mixture

Contains gas under pressure; may explode if heated. Decomposes in a fire giving off toxic fumes: Oxides of nitrogen.

5.3 Advice for fire-fighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions. Keep containers cool by spraying with water if exposed to fire.

6. SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Evacuate area. Ensure adequate ventilation. Avoid breathing gas.
Wear suitable respiratory protection.

6.2 Environmental precautions

Do not release large quantities into the surface water or into drains.

6.3 Methods and material for containment and cleaning up

Stop leak if safe to do so. Allow small spillages to evaporate provided there is adequate ventilation.

6.4 Reference to other sections

See Also Section 8, 13.

7. SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Provide adequate ventilation. Avoid breathing gas. Wear suitable respiratory protection. Do not drag, roll, slide or drop cylinders. Use a suitable hand truck design for cylinder movement. Never attempt to lift a cylinder by its cap; the cap is intended solely to protect the valve. Never insert an object into valve cap openings. Doing so may damage valve causing a leak to occur. Secure cylinders in an upright position at all times, close all valves when not in use. Keep

closed even when empty. Wash hands thoroughly after handling.
Do not eat, drink or smoke when using this product.

7.2 Conditions for safe storage, including any incompatibilities

Protect from sunlight. Store in a well-ventilated place.
Storage temperature < 125°F (52°C).
Storage life Stable under normal conditions.
Incompatible materials None.

8. SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits None assigned.

8.2 Exposure controls

Appropriate engineering controls Ensure adequate ventilation.

Personal protection equipment



Eye Protection

Wear suitable eye/face protection.



Skin protection

Wear suitable gloves.



Respiratory protection

Wear suitable respiratory protective equipment if exposure to high levels of material is likely.

Thermal hazards Not applicable.

9. SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance Gas.

| | |
|----------------------------------------------|--------------------------------------------------------------------------------------|
| | Color: Colorless. |
| Odor | Odorless. |
| Odor threshold | Not established. |
| pH | Not applicable. |
| Melting point/freezing point | -410°F (-210°C) |
| Initial boiling point and boiling range | -384.4°F (-195.8°C) |
| Flash Point | Not applicable. |
| Evaporation rate | Not applicable. |
| Flammability (solid, gas) | Non-flammable. |
| Upper/lower flammability or explosive limits | Not applicable. |
| Vapor pressure | Not available. |
| Vapor density | 1.16 kg/m ³ @ 70°F (21.1°C) |
| Density | 1.25 g/l |
| Relative density | 0.97 @ 70°F (21.1°C) (Air = 1) |
| Solubility(ies) | Solubility (Water): Slightly soluble (20 mg/l) Solubility (Other): Not available. |
| Partition coefficient: n-octanol/water | Not available. |
| Auto-ignition temperature | Not applicable. |
| Decomposition Temperature (°C) | Not available. |
| Viscosity | Not applicable. |
| Explosive properties | Not explosive. |
| Oxidizing properties | Not oxidizing. |
| 9.2 Other information | |
| Molecular weight | 28.01 g/mol |

10. 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

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid



Keep away from heat and direct sunlight.

10.5 Incompatible materials

None.

10.6 Hazardous decomposition product(s)

No hazardous decomposition products known.

11. SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

| | |
|--------------------------------|------------------------------------------------------------------|
| Acute toxicity - Ingestion | Low acute toxicity. |
| Acute toxicity - Skin Contact | Low acute toxicity. |
| Acute toxicity - Inhalation | Low acute toxicity. |
| Skin corrosion/irritation | Contact with rapidly expanding gas may cause burns or frostbite. |
| Serious eye damage/irritation | Contact with rapidly expanding gas may cause burns or frostbite. |
| Skin sensitization data | Not classified. |
| Respiratory sensitization data | Not classified. |
| Germ cell mutagenicity | There is no evidence of mutagenic potential. |
| Carcinogenicity | No evidence of carcinogenicity. |
| Reproductive toxicity | Not classified. |
| Lactation | Not classified. |
| STOT - single exposure | None anticipated. |
| STOT - repeated exposure | None anticipated. |
| Aspiration hazard | Not classified. |

11.2 Other information

None.

12. SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

| | |
|----------------------------------|--------------------------------|
| Toxicity - Aquatic invertebrates | Low toxicity to invertebrates. |
| Toxicity - Fish | Low toxicity to fish. |
| Toxicity - Algae | Low toxicity to algae. |
| Toxicity - Sediment | Not classified. |
| Compartment | |
| Toxicity - Terrestrial | Not classified. |
| Compartment | |

12.2 Persistence and Degradation

Nitrogen is an inert gas. No adverse ecological effects are expected.

12.3 Bioaccumulative potential

Nitrogen is an inert gas. No adverse ecological effects are expected.

12.4 Mobility in soil

Not applicable.

12.5 Other adverse effects

None anticipated.

13. SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Containers must not be punctured or destroyed by burning, even when empty. Refer to manufacturer/supplier for information on recovery/recycling.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

14. SECTION 14: TRANSPORT INFORMATION

14.1 UN number

UN No. 1066

14.2 UN proper shipping name

UN proper shipping name NITROGEN, COMPRESSED.

14.3 Transport hazard class(es)

ADR/RID Class 2.2

IMDG Class 2.2

IMDG EMS Not available

ICAO/IATA

Excepted Quantities E1

Passenger and Cargo Aircraft 75KG
 Limited Quantities Packing
 Instructions
 Cargo Aircraft Limited Quantities 150kg
 Special Provisions A69
 Emergency Response 2L
 Guidebook (ERG) Code
 ADR Classification Code 1A
 ADR HIN 20
 ADR Transport Category 3
 Tunnel Restriction Code E
 Emergency Action Code 2T
 Advice on Additional Personal Protection (APP) Not applicable.

14.4 Packing group

Packing group Not applicable.
 Labels 2.2



Special Provisions 653
 Limited Quantities 120 m
 Excepted Quantities E1
 Mixed Packing Instructions for Packages P200
 Special Packing Provisions for Packages Not applicable.
 Mixed Packing Instructions for Packages MP9

14.5 Environmental hazards

Environmental hazards Not classified as a Marine Pollutant.

14.6 Special precautions for user

Special precautions for user Not known.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Packing Instructions for Portable (M)



Tanks

Special Provisions for Portable Not applicable.

Tanks

Tank Code for Tanks CxBN(M)

Special Provisions for Tanks TA4 TT9

Vehicle for Tank Carriage AT

Special Provisions for Carriage - Not applicable.

Packages

Special Provisions for Carriage - Not applicable.

Bulk

Special Provisions for Carriage - CV9 CV10 CV36

Loading, Unloading and Handling

Special Provisions for Carriage - Not applicable.

Operation

15. SECTION 15: REGULATORY INFORMATION

15.1 Federal

Toxic and hazardous substances Not listed.

(29 CFR 1910; Subpart Z)

National emission standards for Not listed.

hazardous air pollutants (40 CFR

61.01)

Title III Consolidated List of Lists Not listed.

TSCA (Toxic Substance Control Nitrogen (CAS No.: 7727-37-9)

Act)

CAA 602 - Ozone Depleting Not listed.

Substances (ODS)

15.2 State

State Right to Know Lists Listed in: New Jersey, Pennsylvania, Rhode Island, Minnesota.

Proposition 65 (California) Not listed.

15.3 Other

OSPAR List of Chemicals for Not listed.

Priority Action

NTP (National Toxicology Not listed.

Program)

OSHA Not listed.

(List of Highly Hazardous

Chemicals, Toxics and

Reactives)

IARC (International Agency for Not listed.

Research on Cancer)

16. SECTION 16: OTHER INFORMATION

The following sections contain 1-16 revisions or new statements:

| NFPA | | HMIS | |
|-------------|---|------------------|---|
| Health | 0 | Health | 0 |
| Fire | 0 | Flammability | 0 |
| Instability | 0 | Physical hazards | 0 |

LEGEND:

Hazard Pictogram(s)



GHS04

Hazard Statement(s) H280: Contains gas under pressure; may explode if heated.

Precautionary Statement(s) P410+P403: Protect from sunlight. Store in a well-ventilated place.

Additional Information required by Federal Standard 313 Rev. E:



SAFETY DATA SHEET

15-Nov-2016

Contract or Solicitation Number: SPE4A6-16-D-0226
Prime Contractor: Hudson Technologies, Inc.
Prime Contractor CAGE: 7DSQ0
Manufacturer/Contractor CAGE: 7QH44
National Stock Number (NSN): 6830010289402

Specification Reference:

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