Material Name: **NITROGEN, COMPRESSED GAS**

**Manufacturer Information**

**MATHESON TRI-GAS, INC.**

150 Allen Road, Suite 302
Basking Ridge, NJ 07920

*General Information:* 1-800-416-2505

*Emergency #:* 1-800-424-9300 (CHEMTREC)

*Outside the US:* 703-527-3887 (Call collect)

**Chemical Family**

inorganic, gas

**Synonyms**

MTG MSDS 67; DIATOMIC NITROGEN; DINITROGEN; NITROGEN; NITROGEN-14; NITROGEN GAS; UN 1066; N2; RTECS: QW9700000

**Product Use**

industrial

**Usage Restrictions**

None known.

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**EMERGENCY OVERVIEW**

*Color:* colorless

*Physical Form:* gas

*Odor:* odorless

*Health Hazards:* difficulty breathing
Physical Hazards: Containers may rupture or explode if exposed to heat.

POTENTIAL HEALTH EFFECTS

Inhalation

Short Term: nausea, vomiting, tingling sensation, suffocation, convulsions, coma, headache, drowsiness, dizziness, loss of coordination, unconsciousness, fatigue, impairment of judgement, irregular heartbeat

Long Term: no information is available

Skin

Short Term: no information on significant adverse effects

Long Term: no information on significant adverse effects

Eye

Short Term: irritation

Long Term: no information on significant adverse effects

Ingestion

Short Term: ingestion of a gas is unlikely

Long Term: ingestion of a gas is unlikely

*** Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS***

<table>
<thead>
<tr>
<th>CAS</th>
<th>Component</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>7727-37-9</td>
<td>NITROGEN, COMPRESSED GAS</td>
<td>100</td>
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</table>

*** Section 4 - FIRST AID MEASURES***

Inhalation

If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention.

Skin

Wash exposed skin with soap and water.
Safety Data Sheet

Material Name: NITROGEN, COMPRESSED GAS

Eyes
Flush eyes with plenty of water.

Ingestion
If a large amount is swallowed, get medical attention.

Note to Physicians
For inhalation, consider oxygen.

*** Section 5 - FIRE FIGHTING MEASURES ***

See Section 9 for Flammability Properties

NFPA Ratings: Health: 1 Fire: 0 Reactivity: 0
Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

Flammable Properties
Negligible fire hazard. Pressurized containers may rupture or explode if exposed to sufficient heat.

Extinguishing Media
Use extinguishing agents appropriate for surrounding fire.

Unsuitable Extinguishing Media
None known.

Protective Equipment and Precautions for Firefighters
Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

Fire Fighting Measures
Move container from fire area if it can be done without risk. Cool containers with water spray until well after the fire is out. Stay away from the ends of tanks. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Use extinguishing agents appropriate for surrounding fire. Cool containers with water spray until well after the fire is out. Apply water from a protected location or from a safe distance. Do not get water directly on material. Reduce vapors with water spray. Avoid inhalation of material or combustion by-products. Stay upwind and keep out of low areas. Consider downwind evacuation if material is leaking.
Safety Data Sheet

Material Name: NITROGEN, COMPRESSED GAS

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*** Section 6 - ACCIDENTAL RELEASE MEASURES***

Occupational spill/release

Stop leak if possible without personal risk. Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.

*** Section 7 - HANDLING AND STORAGE***

Handling Procedures

Avoid breathing gas. Use only with adequate ventilation.

Storage Procedures


*** Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION***

Component Analysis

ACGIH, OSHA and NIOSH have not developed exposure limits for any of this product's components.

Component Biological Limit Values

There are no biological limit values for any of this product's components.

Ventilation

Provide local exhaust ventilation system. Ensure compliance with applicable exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

Eyes/Face

Eye protection not required, but recommended.

Protective Clothing

Protective clothing is not required.

Glove Recommendations

Protective gloves are not required.
Safety Data Sheet

Material Name: NITROGEN, COMPRESSED GAS            SDS ID: MAT16625

Respiratory Protection

Under conditions of frequent use or heavy exposure, respiratory protection may be needed.

Respiratory protection is ranked in order from minimum to maximum.

Consider warning properties before use.

For Unknown Concentrations or Immediately Dangerous to Life or Health -

Any supplied-air respirator with a full facepiece that is operated in a pressure-demand or other positive-pressure mode in combination with an auxiliary self-contained breathing apparatus operated in pressure-demand or other positive-pressure mode.

Any self-contained breathing apparatus that has a full facepiece and is operated in a pressure-demand or other positive-pressure mode.

*** Section 9 - PHYSICAL AND CHEMICAL PROPERTIES ***

Physical State: Gas

Color: colorless

Odor: odorless

Taste: tasteless

Melting/Freezing Point: -210 °C

Flash Point: not combustible

Evaporation Rate: Not available

UEL: Not applicable

Vapor Density (air = 1): 0.967

Specific Gravity (water=1): 0.967

Log KOW: 0.67

Viscosity: 0.01787 cP @27 °C

Molecular Weight: 28.0134

Appearance: Not available

Physical Form: gas

Odor Threshold: Not available

pH: Not available

Boiling Point: -196 °C

Decomposition: Not available

LEL: Not applicable

Vapor Pressure: 760 mmHg @ -196 °C

Density: 1.2506 g/L

Water Solubility: 1.6 % @ 20 °C

Auto Ignition: Not applicable

Vapor Pressure: Not applicable

Molecular Formula: N2

Solvent Solubility

Soluble: liquid ammonia
**Safety Data Sheet**

**Material Name:** NITROGEN, COMPRESSED GAS

Slightly Soluble: alcohol

**Section 10 - STABILITY AND REACTIVITY**

**Chemical Stability**
Stable at normal temperatures and pressure.

**Conditions to Avoid**
Protect from physical damage and heat. Containers may rupture or explode if exposed to heat.

**Materials to Avoid**
metals, oxidizing materials

**Decomposition Products**
oxides of nitrogen

**Possibility of Hazardous Reactions**
Will not polymerize.

**Section 11 - TOXICOLOGICAL INFORMATION**

**Component Analysis - LD50/LC50**
The components of this material have been reviewed in various sources and no selected endpoints have been identified.

**Component Carcinogenicity**
None of this product's components are listed by ACGIH, IARC, NTP, OSHA or DFG.

**Irritation**
No animal testing data available for skin or eyes.

**Medical Conditions Aggravated by Exposure**
None known.

**Tumorigenic**
No data available.
Safety Data Sheet

Material Name: NITROGEN, COMPRESSED GAS

Mutagenic

No data available.

Reproductive Effects

No data available.

*** Section 12 - ECOLOGICAL INFORMATION***

Component Analysis - Aquatic Toxicity

No LOLI ecotoxicity data are available for this product's components.

*** Section 13 - DISPOSAL CONSIDERATIONS***

Disposal Methods

Dispose in accordance with all applicable regulations.

Component Waste Numbers

The U.S. EPA has not published waste numbers for this product's components.

*** Section 14 - TRANSPORT INFORMATION***

US DOT Information

Shipping Name: Nitrogen, compressed

UN/NA #: UN1066  Hazard Class: 2.2

Required Label(s): 2.2

TDG Information

Shipping Name: Nitrogen, compressed

UN #: UN1066  Hazard Class: 2.2

Required Label(s): 2.2
**Section 15 - REGULATORY INFORMATION**

**U.S. Federal Regulations**

None of this product's components are listed under SARA Sections 302/304 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), or require an OSHA process safety plan.

**SARA 311/312**

Acute Health: Yes  Chronic Health: No  Fire: No  Pressure: Yes  Reactive: No

**U.S. State Regulations**

The following components appear on one or more of the following state hazardous substances lists:

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<th>MA</th>
<th>MN</th>
<th>NJ</th>
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<tr>
<td>NITROGEN, COMPRESSED GAS</td>
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<td>No</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
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Not regulated under California Proposition 65

**Component Analysis - Inventory**

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<th>CA</th>
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<td>7727-37-9</td>
<td>Yes</td>
<td>DSL</td>
<td>EIN</td>
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**Section 16 - OTHER INFORMATION**

**Key / Legend**

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR’s Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RID - European Rail Transport; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

**Other Information**

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End of Sheet MAT16625