

Safety Data Sheet 50026MSA

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name MSA P/N	 Non-Flammable Gas Mixture Containing The following Component In a Nitrogen Balance Gas: Nitric Oxide: 0.0005-0.02 % .812144, 711074, 10028074, 10150617 				
1.2 Relevant identified us Relevant identified use(s)	.2 Relevant identified uses of the substance or mixture and uses advised against . Calibration of Monitoring and Research Equipment				
1.3 Details of the supplier of the safety data sheet					
Manufacturer Telephone (Technica	 Air Liquide 2700 Post Oak Blvd. Houston, TX 77056 United States www.us.airliquide.com sds@airliquide.com 113-896-2896 	U.S. Supplier	Mine Safety Appliances Company Cranberry Township Pennsylvania U.S.A. 16066 1-800-MSA-2222 www.msanet.com/prism		

Telephone (Technical) . 800-819-1704

1.4 Emergency telephone number

Manufacturer	800-424-9300 - CHEMTREC		
Manufacturer	+1 703-527-3887 - Outside United States		

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010] According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP

- . Compressed Gas H280
- DSD/DPD
- . Not classified
- 2.2 Label Elements

CLP

WARNING



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

Precautionary statements Storage/Disposal	 P403 - Store in a well-ventilated place.
DSD/DPD	
Risk phrases	 No label element(s) required
2.3 Other Hazards	
CLP	• This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.
DSD/DPD	 This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. According to European Directive 1999/45/EC this preparation is not considered dangerous.

United States (US) According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

- OSHA HCS 2012
- Compressed Gas H280 Simple Asphyxiant
- 2.2 Label elements

OSHA HCS 2012

WARNING



Hazard statements .	Contains gas under pressure; may explode if heated - H280 May displace oxygen and cause rapid suffocation.
Precautionary statements	
Storage/Disposal .	Store in a well-ventilated place P403
2.3 Other hazards	
OSHA HCS 2012 .	Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Compressed Gas A
- 2.2 Label elements WHMIS



Compressed Gas - A

- 2.3 Other hazards WHMIS
- This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces.
 In Canada, the product mentioned above is considered bazardous under the

Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information



Section 3 - Composition/Information on Ingredients

3.1 Substances

• Material does not meet the criteria of a substance in accordance with Regulation (EC) No 1272/2008.

3.2 Mixtures

	Composition				
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	
Nitric oxide	CAS: 10102- 43-9 EINECS: 233- 271-0	0.0005% TO 0.02%	Inhalation-Rat LC50 • 1068 mg/kg	EU DSD/DPD: Self Classified - O, R8, T+ R26, C, R34 EU CLP: Self Classified - Press. Gas - Comp., H280; Ox. Gas 1, H270; STOT SE 1 (Lung, Blood (Methemoglobin former)), H370; Acute Tox 1 (Inhl), H330; Skin Corr. 1A, H314; Eye Dam. 1, H318 OSHA HCS 2012: Press. Gas - Comp.; Ox. Gas 1; STOT SE 1 (Lung, Bood (Methemoglobin former)); Acute Tox. 1 (Inhl); Skin Corr. 1; Eye Dam. 1	
Nitrogen	CAS: 7727-37- 9 EINECS: 231- 783-9	Balance	NDA	EU DSD/DPD: Not Classified EU CLP: Self Classified - Press. Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp.; Simp. Asphyx.	

See Section 16 for full text of H-statements and R-phrases.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation	• IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.
Skin	• Although exposure is unlikely, in case of contact immediately flush skin with running water. If skin irritation develops get medical advice/attention.
Eye	• First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If irritation develops and persists, get medical attention.
Ingestion	 Ingestion is not considered a potential route of exposure.
4.2 Most important syr	nptoms and effects, both acute and delayed

• Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician	 All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. A potential health hazard associated with this gas is anoxia.
4.4 Other information	
	• Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO GASES WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, Self-Contained Breathing Apparatus must be worn. Victim(s) who experience any adverse effect after over-exposure to this gas mixture must be taken for medical attention. Rescuers should be taken for medical attention if necessary. Take a copy of the label and the MSDS to physician or other health professional with victim(s).

Section 5 - Firefighting Measures

5.1 Extinguishing media

Unsuitable Extinguishing . Media	Use extinguishing agent suitable for type of surrounding fire. No data available g from the substance or mixture
Hazards	Containers may explode when heated. Ruptured cylinders may rocket. No data available
5.3 Advice for firefighters	 Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible. Always wear thermal protective clothing when handling refrigerated/cryogenic liquids. Wear positive pressure self-contained breathing apparatus (SCBA). Move containers from fire area if you can do it without risk. FIRE: If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. FIRE INVOLVING TANKS: Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. FIRE INVOLVING TANKS: Do not direct water at source of leak or safety devices; icing may occur. FIRE INVOLVING TANKS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank. FIRE INVOLVING TANKS: ALWAYS stay away from tanks engulfed in fire.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions	 Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. Ventilate the area before entry.
Emergency Procedures	• Stop leak if you can do it without risk. Keep unauthorized personnel away. Keep out of low areas. Stay upwind. Do not direct water at spill or source of leak. LARGE SPILL: Consider initial downwind evacuation for at least 500 meters (1/3 mile)
6.2 Environmontal proca	Itions

6.2 Environmental precautions

• Prevent spreading of vapors through sewers, ventilation systems and confined areas.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures Stop leak if you can do it without risk. Do not direct water at spill or source of leak. Use water spray to reduce vapors; do not put water directly on leak, spill area or inside container. If possible, turn leaking containers so that gas escapes rather than liquid. Isolate area until gas has dispersed. Ventilate the area.

6.4 Reference to other sections

 Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 -Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Hand	ling

Use only with adequate ventilation. Ventilate closed spaces before entering. Be aware of any signs of dizziness or fatigue, especially if work is done in a poorly ventilated area; exposures to fatal concentrations of this gas mixture could occur without any significant warning symptoms, due to olfactory fatigue or oxygen deficiency. Wear appropriate personal protective equipment, avoid direct contact. Cylinders should be firmly secured to prevent falling or being knocked-over. Do not attempt to repair, adjust, or in any other way modify cylinders. If there is a malfunction or another type of operational problem, contact nearest distributor immediately. Empty containers retain product residue and can be hazardous. Do not cut, weld, puncture or incinerate container.

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place. Protect cylinders against physical damage. Cylinders should be firmly secured to prevent falling or being knocked-over.
- 7.3 Specific end use(s)
- . Refer to Section 1.2 Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines							
	Result ACGIH Canada Ontario Canada Quebec China France						
Nitrio ovido	STELs	Not established	Not established	Not established	30 mg/m3 STEL	Not established	
Nitric oxide (10102-43-9) TWAs		25 ppm TWA	25 ppm TWA	25 ppm TWAEV; 31 mg/m3 TWAEV	15 mg/m3 TWA	25 ppm TWA [VME]; 30 mg/m3 TWA [VME]	
	Exposure Limits/Guidelines (Con't.)						
	Result Germany DFG Ireland Israel NIOSH OSHA						
Nitric oxide (10102-43-9)	STELs	Not established	35 ppm STEL; 45 mg/m3 STEL	Not established	Not established	Not established	
	TWAs	Not established	25 ppm TWA; 30 mg/m3 TWA	25 ppm LVVA	25 ppm TWA; 30 mg/m3 TWA	25 ppm TWA; 30 mg/m3 TWA	
	Ceilings	1 ppm Peak; 1.26 mg/m3 Peak	Not established	Not established	Not established	Not established	
	MAKs	0.5 ppm TWA MAK; 0.63 mg/m3 TWA MAK	Not established	Not established	Not established	Not established	

Exposure Limits/Guidelines (Con't.)						
Result OSHA Vacated Portugal Spain Sweden						
Nitric oxide	TWAs	25 ppm TWA; 30 mg/m3 TWA	25 ppm TWA [VLE-MP]	25 ppm TWA [VLA-ED]; 31 mg/m3 TWA [VLA- ED]	25 ppm LLV; 30 mg/m3 LLV	
(10102-43-9)	STELs	Not established	Not established	Not established	50 ppm STV; 60 mg/m3 STV	

Exposure Control Notations

Portugal

Nitrogen (7727-37-9): Simple Asphyxiants: (Simple Asphyxiant) Ireland
Nitrogen (7727-37-9): Simple Asphyxiants: (Asphyxiant) Spain
Nitrogen (7727-37-9): Simple Asphyxiants: (simple asphyxiant) Germany DFG

•Nitric oxide (10102-43-9): Pregnancy: (classification not yet possible)

8.2 Exposure controls

Engineering Measures/Controls	 Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. 		
Personal Protective Equip	nent		
Respiratory	 Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced. 		
Eye/Face	 Wear safety glasses. 		
Skin/Body	 Wear leather gloves when handling cylinders. 		
Environmental Exposure Controls	 Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways. 		
Key to abbreviations			
LLV = Limit Level Value is the expo	Sure limit for 8-hour work day exposures Time-Weighted Averages are based on 8b/day, 40b/week		

Maximale Arbeitsplatz Konzentration is the maximum permissible

= MAK concentration

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

Time-Weighted Averages are based on 8h/day, 40h/week

TWA exposures

TWAEV = Time-Weighted Average Exposure Value

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Gas	Appearance/Description	Colorless gas with an irritating
i nysicari onn	003	Appearance/Description	odor.
Color	Colorless	Odor	Irritating
Odor Threshold	Data lacking		
General Properties			
Boiling Point	-195.8 C(-320.44 F)	Melting Point	-210 C(-346 F)
Boiling Point	(Nitrogen)		(Nitrogen)
4			

Decomposition Temperature	Data lacking	pН	Data lacking	
Specific Gravity/Relative Density	0.906 Water=1 (Nitrogen)	Water Solubility	Data lacking	
Viscosity	Data lacking	Explosive Properties	Data lacking	
Oxidizing Properties:	Data lacking			
Volatility				
Vapor Pressure	Data lacking	Vapor Density	Data lacking	
Evaporation Rate	Data lacking			
Flammability				
Flash Point	Data lacking	UEL	Data lacking	
LEL	Data lacking	Autoignition	Data lacking	
Flammability (solid, gas)	Data lacking			
Environmental				
Octanol/Water Partition coefficient	Data lacking			

9.2 Other Information

• No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity				
10.1 Reactivity				
	 No dangerous reaction known under conditions of normal use. 			
10.2 Chemical stability				
	 Stable under normal temperatures and pressures. 			
10.3 Possibility of hazardous reactions				
	 Hazardous polymerization will not occur. 			
10.4 Conditions to avoid	1			
	Excess heat.			
10.5 Incompatible materi	als			
-	 Nitrogen reacts with Li, Nd, and Ti at high temperatures. 			
10.6 Hazardous decomposition products				
	 Nitric Oxide will react with water or moist air to form nitrogen dioxide and other oxides of nitrogen. Nitric Oxide can produce brownish Nitrogen Dioxide after reaction with oxygen. 			

Section 11 - Toxicological Information

11.1 Information on toxicological effects

		Components
Nitric oxide (0.0005% TO 0.02%)	10102-43-9	Acute Toxicity: Inhalation-Rat LC50 • 160 mg/m³; Mutagen: Mutation in Mammalian Somatic Cells • Inhalation-Rat • 27 ppm 3 Hour(s)-Continuous

GHS Properties	Classification		
Acute toxicity	EU/CLP Classification criteria not met		
	OSHA HCS 2012 • Classification criteria not met		

Aspiration Hazard	EU/CLP	
	OSHA HCS 2012 • Classification criteria not met	
Carcinogenicity	EU/CLP	
ouromogenioity	OSHA HCS 2012 • Classification criteria not met	
Germ Cell Mutagenicity	EU/CLP Classification criteria not met	
	OSHA HCS 2012 • Classification criteria not met	
Skin corrosion/Irritation	EU/CLP Classification criteria not met	
	OSHA HCS 2012 • Classification criteria not met	
Skin sensitization	EU/CLP Classification criteria not met	
	OSHA HCS 2012 • Classification criteria not met	
STOT-RE	EU/CLP Classification criteria not met	
	OSHA HCS 2012 • Classification criteria not met	
STOT-SE	EU/CLP Classification criteria not met	
	OSHA HCS 2012 • Classification criteria not met	
Toxicity for Reproduction	EU/CLP Classification criteria not met	
	OSHA HCS 2012 • Classification criteria not met	
Respiratory sensitization	EU/CLP Classification criteria not met	
	OSHA HCS 2012 • Classification criteria not met	
Serious eye damage/Irritation	EU/CLP Classification criteria not met	
	OSHA HCS 2012 • Classification criteria not met	

Potential Health Effects

Inhalation

Acute (Immediate)	• This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. If this material is released in a small, poorly ventilated area (i.e. an enclosed or confined space), an oxygen-deficient environment may occur. Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in ears, dizziness, drowsiness, unconsciousness, nausea, vomiting, and depression of all the senses. Under some circumstances of over-exposure, death may occur. The following effects associated with decreased levels of oxygen: increase in breathing and pulse rate, emotional upset, abnormal fatigue, nausea, vomiting, collapse, loss of consciousness, convulsive movements, respiratory collapse and death.
Chronic (Delayed)	No data available
Skin	
Acute (Immediate)	 Under normal conditions of use, no health effects are expected.
Chronic (Delayed)	 Under normal conditions of use, no health effects are expected.
Eye	
Acute (Immediate)	 Under normal conditions of use, no health effects are expected.
Chronic (Delayed)	 Under normal conditions of use, no health effects are expected.
Ingestion	
Acute (Immediate)	 Ingestion is not anticipated to be a likely route of exposure to this product.
Chronic (Delayed)	 Ingestion is not anticipated to be a likely route of exposure to this product.
Kev to abbreviations	

LC = Lethal Concentration

Section 12 - Ecological Information

12.1 Toxicity

. Material data lacking.

12.2 Persistence and degradability

- . Material data lacking.
- 12.3 Bioaccumulative potential
 - . Material data lacking.
- 12.4 Mobility in Soil

. Material data lacking.

12.5 Results of PBT and vPvB assessment

• PBT and vPvB assessment has not been conducted for this material.

12.6 Other adverse effects

. No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

• Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste

 Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	UN1956	Compressed gas, n.o.s (Nitric Oxide, Nitrogen)	2.2	NDA	NDA
TDG	UN1956	COMPRESSED GAS, N.O.S. (Nitric Oxide, Nitrogen)	2.2	NDA	Potential Marine Pollutant
IMO/IMDG	UN1956	COMPRESSED GASES, N.O.S., (Nitric Oxide, Nitrogen)	2.2	NDA	NDA
IATA/ICAO	UN1956	Compressed gases, n.o.s. (Nitric Oxide, Nitrogen)	2.2	NDA	NDA

14.6 Special precautions for user

Cylinders should be transported in a secure position, in a well-ventilated vehicle. The transportation of compressed gas cylinders in automobiles or in closed-body vehicles can present serious safety hazards. If transporting these cylinders in vehicles, ensure these cylinders are not exposed to extremely high temperatures (as may occur in an enclosed vehicle on a hot day). Additionally, the vehicle should be well-ventilated during transportation.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code • Not relevant.

Section 15 - Regulatory Information

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

SARA Hazard Classifications . Pressure(Sudden Release of), Acute

		State Righ	t To Know	
Component	CAS	МА	NJ	PA
Nitrogen	7727-37-9	Yes	Yes	Yes
Nitric oxide	10102-43-9	Yes	Yes	Yes

			Inventory				
Component	CAS	Canada DSL	Canada NDSL	C	China	EU EINECS	EU ELNICS
Nitrogen	7727-37-9	Yes	No		Yes	Yes	No
Nitric oxide	10102-43-9	Yes	No		Yes	Yes	No
Inventory (Con't.)							
Component CAS		CAS		TS	CA		
Nitrogen		77	7727-37-9		Ye	es	
Nitric oxide		10	10102-43-9		Ye	es	

Canada

Labor	
Canada - WHMIS - Classifications of Substances	
Nitric oxide	10102-43-9 A, C, D1A, E
• Nitrogen	7727-37-9 A
Canada - WHMIS - Ingredient Disclosure List	
Nitric oxide	10102-43-9 1 %
• Nitrogen	7727-37-9 Not Listed
Environment	
Canada - CEPA - Priority Substances List	
Nitric oxide	10102-43-9 Not Listed

7727-37-9

10102-43-9

Not Listed

Nitrogen

China

ivironment	
China - Ozone Depleting Substances - First Schedule	
Nitric oxide	10102-43-9 Not Listed
• Nitrogen	7727-37-9 Not Listed
China - Ozone Depleting Substances - Second Schedule	
Nitric oxide	10102-43-9 Not Listed
• Nitrogen	7727-37-9 Not Listed
China - Ozone Depleting Substances - Third Schedule	
Nitric oxide	10102-43-9 Not Listed
Nitrogen	7727-37-9 Not Listed

-Other

China - Annex I & II - Controlled Chemicals Lists	
• Nitrio ovido	

Nitric oxide

Not Listed

• Nitrogen	7727-37-9	Not Listed
China - Dangerous Goods List Nitric oxide 	10102-43-9	
• Nitrogen	7727-37-9	(compressed or refrigerated liquid)
China - Export Control List - Part I Chemicals		
Nitric oxide	10102-43-9	Not Listed
• Nitrogen	7727-37-9	Not Listed

Europe

er J - CLP (1272/2008) - Annex VI - Table 3.2 - Classification		
Nitric oxide	10102-43-9	Not Listed
Nitrogen	7727-37-9	Not Listed
U - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limit	ts	
Nitric oxide	10102-43-9	Not Listed
Nitrogen	7727-37-9	Not Listed
U - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling		
Nitric oxide	10102-43-9	Not Listed
Nitrogen	7727-37-9	Not Listed
U - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances	and Preparations	
Nitric oxide	10102-43-9	Not Listed
Nitrogen	7727-37-9	Not Listed
U - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases		
Nitric oxide	10102-43-9	Not Listed
Nitrogen	7727-37-9	Not Listed

Germany

Environment Germany - TA Luft - Types and Classes		
Nitric oxide	10102-43-9	inorganic gas Substance: 5.2.4, Class IV
• Nitrogen	7727-37-9	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
Nitric oxide	10102-43-9	Not Listed ID Number 1351, not
• Nitrogen	7727-37-9	considered hazardous to water
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
Nitric oxide	10102-43-9	ID Number 285, hazard class 1 - low hazard to waters
• Nitrogen	7727-37-9	Not Listed
Germany - Water Classification (VwVwS) - Annex 3		
Nitric oxide	10102-43-9	Not Listed
• Nitrogen	7727-37-9	Not Listed

Other		
Germany - Specifically Regulated Chemicals in TRGS		
Nitric oxide	10102-43-9	Not Listed
• Nitrogen	7727-37-9	Not Listed
Portugal		
Other		
Portugal - Prohibited Substances		
Nitric oxide	10102-43-9	Not Listed
• Nitrogen	7727-37-9	Not Listed
Jnited Kingdom		
Environment United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air		
Nitric oxide	10102-43-9	Not Listed
• Nitrogen	7727-37-9	Not Listed
Other		
United Kingdom - Workplace Exposure Limits (WELs) - Substances in Review		
Nitric oxide	10102-43-9	Not Listed
• Nitrogen	7727-37-9	Not Listed
United Kingdom - List of Dangerous Substances in Water		
Nitric oxide	10102-43-9	Not Listed
• Nitrogen	7727-37-9	Not Listed
Jnited States		
Labor		
U.S OSHA - Process Safety Management - Highly Hazardous Chemicals Nitric oxide 	10102-43-9	250 lb TQ
Ninc Oxide Ninc Oxide Nitrogen	7727-37-9	Not Listed
ranogon	1121-31-3	
U.S OSHA - Specifically Regulated Chemicals		
Nitric oxide	10102-43-9	Not Listed
Nitrogen	7727-37-9	Not Listed

 U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants Nitric oxide Nitrogen 	10102-43-9 7727-37-9	Not Listed Not Listed
U.S CERCLA/SARA - Hazardous Substances and their Reportable Quantities		
• Nitric oxide	10102-43-9	10 lb final RQ (releases to the air in amounts <1000 pounds per 24 hours which are the result of combustion and combustion-related activities are exempt from the notification requirements per 40 CFR 302.6); 4.54 kg final
		RQ (releases to the air in amounts <1000 pounds per 24
		hours which are the result of
Propagation Date: 17/October/2014	Format	ELLCI D/DEACH Longuages English (US)

 Nitrogen U.S CERCLA/SARA - Radionuclides and Their Reportable Quantities Nitric oxide Nitrogen 	7727-37-9 10102-43-9 7727-37-9	combustion and combustion- related activities are exempt from the notification requirements per 40 CFR 302.6) Not Listed Not Listed Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
Nitric oxide	10102-43-9	10 lb EPCRA RQ (Releases to the air in amounts <1000 pounds per 24 hours which are the result of combustion and combustion-related activities are exempt from the notification requirements per 40 CFR 355.31)
• Nitrogen	7727-37-9	Not Listed
 U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs Nitric oxide Nitrogen 	10102-43-9 7727-37-9	100 lb TPQ Not Listed
U.S CERCLA/SARA - Section 313 - Emission Reporting Nitric oxide Nitrogen 	10102-43-9 7727-37-9	Not Listed Not Listed
 U.S CERCLA/SARA - Section 313 - PBT Chemical Listing Nitric oxide Nitrogen 	10102-43-9 7727-37-9	Not Listed Not Listed
 U.S RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Ap Nitric oxide Nitrogen 	pendix VIII to 40 C 10102-43-9 7727-37-9	FR 261 waste number P076 Not Listed
 U.S RCRA (Resource Conservation & Recovery Act) - P Series Wastes - Acutely To Nitric oxide Nitrogen 	xic Wastes 10102-43-9 7727-37-9	waste number P076 Not Listed

United States - California

Environment U.S California - Proposition 65 - Carcinogens List			
Nitric oxide	10102-43-9	Not Listed	
• Nitrogen	7727-37-9	Not Listed	
U.S California - Proposition 65 - Developmental Toxicity			
Nitric oxide	10102-43-9	Not Listed	
• Nitrogen	7727-37-9	Not Listed	
U.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL)			
Nitric oxide	10102-43-9	Not Listed	
Nitrogen	7727-37-9	Not Listed	

10102-43-9 7727-37-9	Not Listed Not Listed
7727-37-9	Not Listed
10102-43-9	Not Listed
7727-37-9	Not Listed
10102-43-9	Not Listed
7727-37-9	Not Listed
	7727-37-9 10102-43-9

United States - Pennsylvania

DOF J.S Pennsylvania - RTK (Right to Know) - Environmental Hazard List		
Nitric oxide	10102-43-9	
Nitrogen	7727-37-9	Not Listed
J.S Pennsylvania - RTK (Right to Know) - Special Hazardous Substances		
Nitric oxide	10102-43-9	Not Listed
• Nitrogen	7727-37-9	Not Listed

15.2 Chemical Safety Assessment

• No Chemical Safety Assessment has been carried out.

Section 16 - Other Information Relevant Phrases (code & full text)	
Preparation Date	17/October/2014
Disclaimer/Statement of Liability	• To the best of Air Liquide's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this gas mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.
Key to abbreviations NDA = No Data Available	