Safety Data Sheet



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

1.1 Product identifier

• Sulfur Hexafluoride (0.1 - 1%), Nitrogen (Balance)

Product Code • M-3741/E-1

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

Relevant identified use(s) • Calibration Gas

1.3 Details of the supplier of the safety data sheet

Manufacturer • Air Liquide

2700 Post Oak Blvd. Houston, TX 77056 United States

www.us.airliquide.com sds@airliquide.com

Telephone (Technical) • 713-896-2896 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. This preparation is not considered dangerous according to European Directive 1999/45/EC.

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 hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information

NFPA



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	%	Classifications According to Regulation/Directive		
Sulfur hexafluoride	CAS:2551-62-4 EINECS:219-854-2	0.1% TO 1%	EU DSD/DPD: None EU CLP: Self Classified: Press. Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp., Simp. Asphyx.		
Nitrogen	CAS:7727-37-9 EINECS:231-783-9	Balance	EU DSD/DPD: None EU CLP: Self Classified: Press Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp.; Simp. Asphyx.		

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. 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

 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

As this product is a gas, refer to the inhalation section.

4.2 Most important symptoms 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

Treat symptoms and eliminate over-exposure.

4.4 Other information

 RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO THIS SUBSTANCE 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 SDS to physician or other health professional with

victim(s).

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media . Non-flammable gas mixture. Use extinguishing media appropriate for surrounding fire.

Unsuitable Extinguishing Media

None known.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

 This gas mixture is not flammable; however, containers, when involved in fire, may rupture or burst in the heat of the fire.

Hazardous Combustion Products

No data available.

5.3 Advice for firefighters

• Structural firefighters' protective clothing will only provide limited protection. Wear positive pressure self-contained breathing apparatus (SCBA).

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

Wear appropriate personal protective equipment. See section 8 for more information.

Emergency Procedures

• In the event of a release in which the atmosphere is unknown, and in which other chemicals are potentially involved, evacuate immediate area. Such releases should be responded to by trained personnel using pre-planned procedures. Proper protective equipment should be used. In case of a leak, clear the affected area, protect people, and respond with trained personnel.

6.2 Environmental precautions

Avoid release to the environment.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

Allow the gas mixture to dissipate.
 If necessary, monitor the surrounding area (and the original area of the release) for concentrations of component gases.
 Concentrations of component gases must be below any exposure limits listed in Section 8.

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

Handling

Use good safety and industrial hygiene practices. Use only with adequate ventilation. 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. Use suitable hand truck to move cylinders. 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, due to oxygen deficiency, could occur without any significant warning symptoms.

7.2 Conditions for safe storage, including any incompatibilities

Storage

 Cylinders should be stored in dry, well-ventilated areas away from sources of heat, ignition and direct sunlight. Do not allow area where cylinders are stored to exceed 52°C (125°F). Cylinders must be protected from the environment, and preferably kept at room temperature (approximately 21°C (70°F). Cylinders should be firmly secured to prevent falling or being knocked-over. Protect cylinders against physical damage. Keep valve protection cap on cylinders when not in use.

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									
	Resul	t	ACGIH	Cana	da Ontario	Canada Q	uebec	China	France	
	STELs	Not	established	Not esta	blished	Not establish	ed	9000 mg/m3 STEL	Not established	
Sulfur hexafluoride (2551-62-4)	TWAs	100	0 ppm TWA	1000 pp	m TWA	1000 ppm TV 5970 mg/m3		6000 mg/m3 TWA	1000 ppm TWA [VME]; 6000 mg TWA [VME]	
			Ex	posure	Limits/Gui	idelines (Co	on't.)			
	Resul	t	Germany DFG	Germ	any TRGS	Irelan	ıd	Israel	NIOSH	
	STELs	Not	established	Not esta	blished	1250 ppm ST 7500 mg/m3 S		Not established	Not established	
Sulfur hexafluoride (2551-62-4)	TWAs	Not	established	(exposu		1000 ppm TV mg/m3 TWA	VA; 6000	1000 ppm TWA	1000 ppm TWA mg/m3 TWA	; 6000
	Ceiling		0 ppm Peak; 00 mg/m3 Peak	Not esta	blished	Not established		Not established	Not established	
	MAKs		10 ppm TWA MAK; 10 mg/m3 TWA K	Not esta	blished	Not established		Not established	Not established	
			Ex	posure	Limits/Gui	idelines (Co	on't.)			
	Re	sult	OSHA		Portu	gal		Spain	Sweden	
Sulfur hexafluoride (2551-62-4)	TV	/As	1000 ppm TWA; 6 mg/m3 TWA	000	1000 ppm TV MP]	VA [VLE-		m TWA [VLA- 5 mg/m3 TWA]	1000 ppm LLV; 6000 mg/m3 LLV)

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

•Sulfur hexafluoride (2551-62-4): Pregnancy: (classification not yet possible)

8.2 Exposure controls

Engineering Measures/Controls

 Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment

Respiratory

In case of insufficient ventilation, wear suitable respiratory equipment. 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 Skin/Body

- Wear safety glasses.
- Wear leather gloves when handling cylinders.
- Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

Controls

ACGIH = American Conference of Governmental Industrial Hygiene

Maximale Arbeitsplatz Konzentration is the maximum permissible

concentration

Environmental Exposure

NIOSH = National Institute of Occupational Safety and Health

OSHA = Occupational Safety and Health Administration

TWAEV = Time-Weighted Average Exposure Value

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

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

Material Description			
Physical Form	Gas	Appearance/Description	Colorless gas with no odor.
Color	Colorless	Odor	Odorless
Odor Threshold	Data lacking		
General Properties	-	-	-
Boiling Point	-196 C(-320.8 F) Nitrogen	Melting Point	-210 C(-346 F) Nitrogen
Decomposition Temperature	Data lacking	рН	Data lacking
Specific Gravity/Relative Density	0.967 Water=1 Nitrogen	Water Solubility	1.485 cm3/100 cm3
Viscosity	Data lacking	Explosive Properties	Not explosive.
Oxidizing Properties:	Not an oxidizer.		
Volatility		-	-
Vapor Pressure	Data lacking	Vapor Density	0.967 Air=1
Evaporation Rate	Data lacking		
Flammability		-	
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Not flammable.		
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

Excess heat.

10.5 Incompatible materials

None

10.6 Hazardous decomposition products

Carbon monoxide.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

GHS Properties	Classification
Acute toxicity	EU/CLP Classification criteria not met OSHA HCS 2012 Classification criteria not met
Aspiration Hazard	EU/CLP Not relevant OSHA HCS 2012 Classification criteria not met
Carcinogenicity	EU/CLP Classification criteria not met 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

Route(s) of entry/exposure Potential Health Effects Inhalation

Inhalation, Skin, Eye and Ingestion

Acute (Immediate)

• 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)

No data available

Eye

Acute (Immediate)

Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

No data available

Ingestion

Acute (Immediate)

• Under normal conditions of use, no health effects are expected.

Chronic (Delayed)

No data available

Mutagenic Effects

 The components of this gas mixture are not reported to cause mutagenic effects in humans.

Carcinogenic Effects

The components of this gas mixture are not found on the following lists: FEDERAL OSHA Z LIST, NTP and IARC; therefore, they are not considered to be, nor suspected to be, cancer-causing agents by these agencies.

Reproductive Effects

 There is no information on the potential human mutagenic, embryotoxic, teratogenic or reproductive effects of the components of this product.

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.

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 (Nitrogen, Sulfur Hexafluoride)	2.2	NDA	NDA
TDG	UN1956	COMPRESSED GAS, N.O.S. (Nitrogen, Sulfur Hexafluoride)	2.2	NDA	NDA
IMO/IMDG	UN1956	COMPRESSED GAS, N.O.S. (Nitrogen, Sulfur Hexafluoride)	2.2	NDA	NDA
IATA/ICAO	UN1956	Compressed gas, n.o.s (Nitrogen, Sulfur Hexafluoride)	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 • Acute, Pressure(Sudden Release of)

State Right To Know						
Component	CAS	MA	NJ	PA		
Nitrogen	7727-37-9	Yes	Yes	Yes		
Sulfur hexafluoride	2551-62-4	Yes	Yes	Yes		

Inventory							
Component	CAS	Canada DSL	Canada NDSL	China	EU EINECS	EU ELNICS	
Nitrogen	7727-37-9	Yes	No	Yes	Yes	No	
Sulfur hexafluoride	2551-62-4	Yes	No	Yes	Yes	No	
			Inventory (Cor	n't.)			
Component			CAS		TSCA		
Nitrogen 7727-37-9			27-37-9		Yes		
Sulfur hexafluoride		255	51-62-4		Yes		

Canada

Labor Canada - WHMIS - Classifications of Substances		
Sulfur hexafluoride	2551-62-4	A
 Nitrogen 	7727-37-9	A
Canada - WHMIS - Ingredient Disclosure List		
Sulfur hexafluoride	2551-62-4	1 %
Nitrogen	7727-37-9	Not Listed

ovironment		
Canada - 2004 NPRI (National Pollutant Release Inventory)	0554 00 4	Dowl 4 Crown 4 Cultations
Sulfur hexafluoride Nitrogon	2551-62-4	Part 1, Group 1 Substance
Nitrogen	7727-37-9	Not Listed
Canada - 2005 NPRI (National Pollutant Release Inventory)		
Sulfur hexafluoride	2551-62-4	Part 1, Group 1 Substance
Nitrogen	7727-37-9	Not Listed
Canada - CEPA - Greenhouse Gases Subject to Mandatory Reporting		
Sulfur hexafluoride	2551-62-4	23900 GWP
Nitrogen	7727-37-9	Not Listed
Canada - CEPA - Priority Substances List		
Sulfur hexafluoride	2551-62-4	Not Listed
• Nitrogen	7727-37-9	Not Listed
		. 101 = 10100
Canada - DWQ (Drinking Water Quality) - IMACs		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
her ————————————————————————————————————		
her Canada - Accelerated Reduction/Elimination of Toxics (ARET)		
	2551-62-4	Not Listed
	2551-62-4 7727-37-9	Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen		
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen nada New Brunswick nvironment		
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen nada New Brunswick evironment		
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen nada New Brunswick nvironment Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride	7727-37-9 2551-62-4	
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen nada New Brunswick ivironment Canada - New Brunswick - Ozone Depleting Substances - Schedule A	7727-37-9	Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen nada New Brunswick nvironment Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen	7727-37-9 2551-62-4	Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen mada New Brunswick evironment Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B	7727-37-9 2551-62-4	Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen The Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride	2551-62-4 7727-37-9	Not Listed Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen Canada New Brunswick Nitronment Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen	2551-62-4 7727-37-9 2551-62-4	Not Listed Not Listed Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen nada New Brunswick nitronment Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen na na nvironment	2551-62-4 7727-37-9 2551-62-4	Not Listed Not Listed Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen mada New Brunswick vironment Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen Mitrogen ma nvironment China - Ozone Depleting Substances - First Schedule	2551-62-4 7727-37-9 2551-62-4 7727-37-9	Not Listed Not Listed Not Listed Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen nada New Brunswick nada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen na nvironment China - Ozone Depleting Substances - First Schedule • Sulfur hexafluoride	2551-62-4 7727-37-9 2551-62-4	Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen mada New Brunswick vironment Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen ma nvironment China - Ozone Depleting Substances - First Schedule	2551-62-4 7727-37-9 2551-62-4 7727-37-9	Not Listed Not Listed Not Listed Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen nada New Brunswick nada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen na nvironment China - Ozone Depleting Substances - First Schedule • Sulfur hexafluoride	2551-62-4 7727-37-9 2551-62-4 7727-37-9	Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen Ada New Brunswick Nitronment Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen na Nitrogen china - Ozone Depleting Substances - First Schedule • Sulfur hexafluoride • Nitrogen	2551-62-4 7727-37-9 2551-62-4 7727-37-9	Not Listed Not Listed Not Listed Not Listed Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen Ina Invironment China - Ozone Depleting Substances - First Schedule • Sulfur hexafluoride • Nitrogen China - Ozone Depleting Substances - Second Schedule	2551-62-4 7727-37-9 2551-62-4 7727-37-9 2551-62-4 7727-37-9	Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen The Accelerated Reduction/Elimination of Toxics (ARET) • Nitrogen Canada New Brunswick • Ozone Depleting Substances - Schedule • Sulfur hexafluoride • Nitrogen China - Ozone Depleting Substances - Second Schedule • Sulfur hexafluoride	2551-62-4 7727-37-9 2551-62-4 7727-37-9 2551-62-4 7727-37-9	Not Listed Not Listed
Canada - Accelerated Reduction/Elimination of Toxics (ARET) • Sulfur hexafluoride • Nitrogen Anada New Brunswick Nitronment Canada - New Brunswick - Ozone Depleting Substances - Schedule A • Sulfur hexafluoride • Nitrogen Canada - New Brunswick - Ozone Depleting Substances - Schedule B • Sulfur hexafluoride • Nitrogen Ina Nitrogen China - Ozone Depleting Substances - First Schedule • Sulfur hexafluoride • Nitrogen China - Ozone Depleting Substances - Second Schedule • Sulfur hexafluoride • Nitrogen China - Ozone Depleting Substances - Second Schedule • Sulfur hexafluoride • Nitrogen	2551-62-4 7727-37-9 2551-62-4 7727-37-9 2551-62-4 7727-37-9	Not Listed Not Listed

Other

China - Annex I & II - Controlled Chemicals Lists

Sulfur hexafluoride	2551-62-4	Not Listed
• Nitrogen	7727-37-9	Not Listed
China - Dangerous Goods List		
Sulfur hexafluoride	2551-62-4	
Nitrogen	7727-37-9	(compressed or refrigerated liquid)
China - Export Control List - Part I Chemicals		
Sulfur hexafluoride	2551-62-4	Not Listed
• Nitrogen	7727-37-9	Not Listed

Europe

- ^ (l		
Other EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed

Germany

Environment Germany - TA Luft - Types and Classes		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
Germany - Water Classification (VwVwS) - Annex 1		
Sulfur hexafluoride	2551-62-4	ID Number 846, not considered hazardous to water
Nitrogen	7727-37-9	ID Number 1351, not considered hazardous to water
Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
Germany - Water Classification (VwVwS) - Annex 3		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed

Other		
Germany - Specifically Regulated Chemicals in TRGS		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
ortugal		
Other Portugal - Prohibited Substances		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
nited Kingdom		
Environment United Kingdom - Pollution Inventory - Schedule 1 - Thresho	olds for Releases to Air	
Sulfur hexafluoride	2551-62-4	10 kg
Nitrogen	7727-37-9	Not Listed
•	3, 0	
United Kingdom - Substances Contained in Dangerous Sub	estances or Preparations	
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
Other		
United Kingdom - Workplace Exposure Limits (WELs) - Sub	stances in Review	
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
United Kingdom - List of Dangerous Substances in Water		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
nited States		
Labor U.S OSHA - Process Safety Management - Highly Hazardo	ous Chemicals	
Sulfur hexafluoride	2551-62-4	Not Listed
 Nitrogen 	7727-37-9	Not Listed
U.S OSHA - Specifically Regulated Chemicals		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
Environment		
U.S CAA (Clean Air Act) - 1990 Hazardous Air Pollutants		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
U.S CERCLA/SARA - Hazardous Substances and their Repo		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed

Preparation Date: 26/June/2012 Revision Date: 26/December/2013

• Sulfur hexafluoride

Not Listed

2551-62-4

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

Nitrogen	7727-37-9	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
U.S CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
U.S CERCLA/SARA - Section 313 - Emission Reporting		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
U.S CERCLA/SARA - Section 313 - PBT Chemical Listing		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed

United States - California

S California - Proposition 65 - Carcinogens List		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
.S California - Proposition 65 - Developmental Toxicity		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
.S California - Proposition 65 - Maximum Allowable Dose Levels (MADL)		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
.S California - Proposition 65 - No Significant Risk Levels (NSRL)		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
.S California - Proposition 65 - Reproductive Toxicity - Female		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed
I.S California - Proposition 65 - Reproductive Toxicity - Male		
Sulfur hexafluoride	2551-62-4	Not Listed
Nitrogen	7727-37-9	Not Listed

United States - Pennsylvania

2551-62-4 7727-37-9	Not Listed Not Listed
7727-37-9	Not Listed
2551-62-4	Not Listed
7727-37-9	Not Listed

15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Last Revision Date Preparation Date

- Disclaimer/Statement of Liability
- 18/November/2013
- 26/June/2012
- 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