

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
 Product name : 62 Components in Nitrogen
 Product code : SG-2063-01931

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

Use of the substance/mixture : Test gas/Calibration gas.

1.3. Details of the supplier of the safety data sheet

Air Liquide
 2700 Post Oak Boulevard
 Houston, TX 77056 - USA
 T 1-800-819-1704
www.us.airliquide.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Compressed gas H280
 Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H280 - Contains gas under pressure; may explode if heated
 H420 - Harms public health and the environment by destroying ozone in the upper atmosphere
 OSHA-H01 - May displace oxygen and cause rapid suffocation
 CGA-HG16 - Extended exposure to gas reduces the ability to smell sulfides.

Precautionary statements (GHS-US) : P202 - Do not handle until all safety precautions have been read and understood
 P271 - Use only outdoors or in a well-ventilated area
 P280 - Wear eye protection, face protection, protective gloves, protective clothing
 P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
 P308+P313 - If exposed or concerned: Get medical advice/attention
 P403 - Store in a well-ventilated place
 P501 - Dispose of contents/container in accordance with local/regional/national/international regulations
 CGA-PG02 - Protect from sunlight when ambient temperature exceeds 52°C (125°F)
 CGA-PG05 - Use a back flow preventive device in the piping
 CGA-PG06 - Close valve after each use and when empty
 CGA-PG10 - Use only with equipment rated for cylinder pressure
 CGA-PG14 - Approach suspected leak area with caution
 CGA-PG21 - Open valve slowly
 CGA-PG29 - Do not depend on odor to detect presence of gas

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	GHS-US classification
Nitrogen	(CAS No) 7727-37-9	99.9938	Compressed gas, H280
Acetone	(CAS No) 67-64-1	0.0001	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Benzene	(CAS No) 71-43-2	0.0001	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Muta. 1B, H340 Carc. 1A, H350 STOT RE 1, H372 Asp. Tox. 1, H304
BENZYL CHLORIDE	(CAS No) 100-44-7	0.0001	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Inhalation:gas), H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Carc. 1B, H350 STOT SE 3, H335 STOT RE 2, H373
METHYL TRIBROMIDE	(CAS No) 75-25-2	0.0001	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation:gas), H331 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Chronic 2, H411
Bromomethane	(CAS No) 74-83-9	0.0001	Flam. Gas 1, H220 Liquefied gas, H280 Acute Tox. 2 (Inhalation:gas), H330 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Muta. 2, H341 STOT SE 3, H335 STOT RE 2, H373 Aquatic Chronic 1, H410
BROMODICHLOROMETHANE	(CAS No) 75-27-4	0.0001	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 1B, H350 STOT SE 3, H335
1,3-Butadiene	(CAS No) 106-99-0	0.0001	Flam. Gas 1, H220 Liquefied gas, H280 Muta. 1B, H340 Carc. 1A, H350
METHYL ETHYL KETONE	(CAS No) 78-93-3	0.0001	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Carbon disulfide	(CAS No) 75-15-0	0.0001	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361 STOT RE 1, H372
Chloromethane (R40)	(CAS No) 74-87-3	0.0001	Flam. Gas 1, H220 Liquefied gas, H280 Acute Tox. 4 (Inhalation:gas), H332 Carc. 2, H351 STOT RE 2, H373
Chloroethane	(CAS No) 75-00-3	0.0001	Flam. Gas 1, H220 Carc. 2, H351 Liquefied gas, H280 Aquatic Chronic 3, H412
trans-1,2-Dichloroethylene	(CAS No) 156-60-5	0.0001	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:gas), H332 Aquatic Chronic 3, H412
Chloroform	(CAS No) 67-66-3	0.0001	Acute Tox. 4 (Inhalation:gas), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 STOT RE 1, H372

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	GHS-US classification
Cyclohexane	(CAS No) 110-82-7	0.0001	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304
1,2-dichloroethane, ethylene dichloride	(CAS No) 107-06-2	0.0001	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 1B, H350 STOT SE 3, H335
carbon tetrachloride, tetrachloromethane	(CAS No) 56-23-5	0.0001	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Carc. 2, H351 STOT RE 1, H372 Aquatic Chronic 3, H412 Ozone 1, H420
1,1-dichloroethane	(CAS No) 75-34-3	0.0001	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Chronic 3, H412
Chlorobenzene	(CAS No) 108-90-7	0.0001	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation), H332 Aquatic Chronic 2, H411
CHLORODIBROMOMETHANE	(CAS No) 124-48-1	0.0001	Not classified
1,1-DICHLOROETHYLENE	(CAS No) 75-35-4	0.0001	Flam. Liq. 1, H224 Acute Tox. 4 (Inhalation:gas), H332 Carc. 2, H351
1,2-DICHLOROETHYLENE (CIS)	(CAS No) 156-59-2	0.0001	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:gas), H332 Aquatic Chronic 3, H412
1,3-DICHLOROPROPENE (CIS)	(CAS No) 10061-01-5	0.0001	Flam. Liq. 3, H226 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation:gas), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Skin Sens. 1, H317 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,2-DIBROMOETHANE	(CAS No) 106-93-4	0.0001	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation:gas), H331 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 1B, H350 STOT SE 3, H335 Aquatic Chronic 2, H411
1,2-DICHLOROBENZENE	(CAS No) 95-50-1	0.0001	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,2-DICHLOROPROPANE	(CAS No) 78-87-5	0.0001	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:gas), H332
1,3-DICHLOROBENZENE	(CAS No) 541-73-1	0.0001	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation:gas), H331 Aquatic Chronic 2, H411
1,4-DICHLOROBENZENE	(CAS No) 106-46-7	0.0001	Acute Tox. 3 (Inhalation:gas), H331 Eye Irrit. 2A, H319 Carc. 2, H351 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	GHS-US classification
Propylene	(CAS No) 115-07-1	0.0001	Flam. Gas 1, H220 Liquefied gas, H280
Vinyl chloride	(CAS No) 75-01-4	0.0001	Flam. Gas 1, H220 Liquefied gas, H280 Carc. 1A, H350 STOT RE 2, H373
Dichlorodifluoromethane (R12)	(CAS No) 75-71-8	0.0001	Liquefied gas, H280 Ozone 1, H420
Dichlorotetrafluoroethane (R114)	(CAS No) 76-14-2	0.0001	Liquefied gas, H280 Ozone 1, H420
n-Hexane	(CAS No) 110-54-3	0.0001	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Toluene	(CAS No) 108-88-3	0.0001	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Repr. 2, H361 STOT SE 3, H336 STOT RE 2, H373 Asp. Tox. 1, H304
Ethyl alcohol	(CAS No) 64-17-5	0.0001	Flam. Liq. 2, H225 Eye Irrit. 2A, H319
Ethylbenzene	(CAS No) 100-41-4	0.0001	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:vapour), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304
2-Pentanone, 4-methyl-	(CAS No) 108-10-1	0.0001	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:gas), H332 Eye Irrit. 2A, H319 STOT SE 3, H335
Isopropyl alcohol	(CAS No) 67-63-0	0.0001	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
n-Heptane	(CAS No) 142-82-5	0.0001	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,1,1-trichloroethane	(CAS No) 71-55-6	0.0001	Acute Tox. 4 (Inhalation), H332 Ozone 1, H420
m-xylene	(CAS No) 108-38-3	0.0001	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Asp. Tox. 1, H304
1,1,2-TRICHLOROTRIFLUOROETHANE	(CAS No) 76-13-1	0.0001	Eye Irrit. 2A, H319 Aquatic Chronic 2, H411 Ozone 1, H420
1,1,2-trichloroethane	(CAS No) 79-00-5	0.0001	Carc. 2, H351 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Oral), H302
TRICHLOROETHYLENE	(CAS No) 79-01-6	0.0001	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Muta. 2, H341 Carc. 1B, H350 STOT SE 3, H336 Aquatic Chronic 3, H412
O-XYLENE	(CAS No) 95-47-6	0.0001	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	GHS-US classification
STYRENE	(CAS No) 100-42-5	0.0001	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:gas), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361 STOT RE 1, H372
1,2,4-TRICHLOROENZENE	(CAS No) 120-82-1	0.0001	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
1,2,4-TRIMETHYLBENZENE	(CAS No) 95-63-6	0.0001	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:gas), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
tert-Butyl Methyl Ether	(CAS No) 1634-04-4	0.0001	Flam. Liq. 2, H225
p-Dioxane	(CAS No) 123-91-1	0.0001	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335
Trichlorofluoromethane	(CAS No) 75-69-4	0.0001	Compressed gas, H280
VINYL ACETATE	(CAS No) 108-05-4	0.0001	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:gas), H332 Carc. 2, H351 STOT SE 3, H335
TETRACHLOROETHYLENE	(CAS No) 127-18-4	0.0001	Carc. 2, H351 Aquatic Chronic 2, H411
4-ETHYL TOLUENE	(CAS No) 622-96-8	0.0001	Flam. Liq. 3, H226 Asp. Tox. 1, H304
p-xylene	(CAS No) 106-42-3	0.0001	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:gas), H332 Skin Irrit. 2, H315
1,1,2,2-TETRACHLOROETHANE	(CAS No) 79-34-5	0.0001	Acute Tox. 2 (Inhalation:gas), H330 Aquatic Chronic 2, H411
HEXACHLORO-1,3-BUTADIENE	(CAS No) 87-68-3	0.0001	Acute Tox. 1 (Inhalation:gas), H330 Skin Irrit. 2, H315 Skin Sens. 1B, H317 Aquatic Acute 1, H400
METHYLENE CHLORIDE	(CAS No) 75-09-2	0.0001	Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H336
1,3-DICHLOROPROPENE (TRANS)	(CAS No) 10061-02-6	0.0001	Not classified
1,3,5-TRIMETHYLBENZENE	(CAS No) 108-67-8	0.0001	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:gas), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335 Aquatic Chronic 2, H411
ETHYL ACETATE	(CAS No) 141-78-6	0.0001	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
METHYL N-BUTYL KETONE	(CAS No) 591-78-6	0.0001	Flam. Liq. 3, H226 Repr. 2, H361 STOT SE 3, H336 STOT RE 1, H372
TETRAHYDROFURAN	(CAS No) 109-99-9	0.0001	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

First-aid measures after inhalation	: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.
First-aid measures after skin contact	: Adverse effects not expected from this product.
First-aid measures after eye contact	: Adverse effects not expected from this product.
First-aid measures after ingestion	: Ingestion is not considered a potential route of exposure.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation	: May displace oxygen and cause rapid suffocation.
Symptoms/injuries after skin contact	: Adverse effects not expected from this product.
Symptoms/injuries after eye contact	: Adverse effects not expected from this product.
Symptoms/injuries after ingestion	: Ingestion is not considered a potential route of exposure.
Symptoms/injuries upon intravenous administration	: Not known.
Chronic symptoms	: Adverse effects not expected from this product.

4.3. Indication of any immediate medical attention and special treatment needed

If you feel unwell, seek medical advice. If breathing is difficult, give oxygen.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire.
Unsuitable extinguishing media	: Do not use water jet to extinguish.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: The product is not flammable.
Explosion hazard	: Product is not explosive. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.
Reactivity	: None known.

5.3. Advice for firefighters

Firefighting instructions	: In case of fire: Evacuate area. Fight fire remotely due to the risk of explosion. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
Protection during firefighting	: Standard protective clothing and equipment (e.g., Self Contained Breathing Apparatus) for fire fighters. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Ensure adequate ventilation.
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6.1.1. For non-emergency personnel

Protective equipment	: Wear protective equipment consistent with the site emergency plan.
Emergency procedures	: Escape the danger area by the closest safe route. Close doors and windows of adjacent premises. Keep containers closed. Mark the danger area. Seal off low-lying areas. Keep upwind.

6.1.2. For emergency responders

Protective equipment	: Standard protective clothing and equipment (e.g., Self Contained Breathing Apparatus) for fire fighters. Equip cleanup crew with proper protection.
Emergency procedures	: Evacuate and limit access. Ventilate area.

6.2. Environmental precautions

Try to stop release if safe to do so.

6.3. Methods and material for containment and cleaning up

For containment	: Try to stop release if safe to do so.
Methods for cleaning up	: Dispose of this material and its container in accordance with local regulations.

6.4. Reference to other sections

See also Sections 8 and 13.

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : Pressurized container: Do not pierce or burn, even after use. Use equipment rated for cylinder pressure. Close valve after each use and when empty.
- Precautions for safe handling : Do not handle until all safety precautions have been read and understood. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Comply with applicable regulations.
- Storage conditions : Do not expose to temperatures exceeding 52°C (125°F). Keep container closed when not in use. Protect cylinder from physical damage. Store in well ventilated area.
- Incompatible products : None known.
- Incompatible materials : None known.

7.3. Specific end use(s)

See Section 1.2.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

62 Components in Nitrogen		
ACGIH	Not applicable	
OSHA	Not applicable	
Acetone (67-64-1)		
ACGIH	ACGIH TWA (ppm)	500 ppm
ACGIH	ACGIH STEL (ppm)	750 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	2400 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
Benzene (71-43-2)		
ACGIH	ACGIH TWA (ppm)	0.5 ppm
ACGIH	ACGIH STEL (ppm)	2.5 ppm
OSHA	OSHA PEL (TWA) (ppm)	1 ppm
OSHA	OSHA PEL (STEL) (ppm)	5 ppm (see 29 CFR 1910.1028)
OSHA	OSHA PEL (Ceiling) (ppm)	25 ppm
BENZYL CHLORIDE (100-44-7)		
ACGIH	Not applicable	
OSHA	Not applicable	
METHYL TRIBROMIDE (75-25-2)		
ACGIH	Not applicable	
OSHA	Not applicable	
Bromomethane (74-83-9)		
ACGIH	ACGIH TWA (ppm)	1 ppm
OSHA	OSHA PEL (Ceiling) (mg/m ³)	80 mg/m ³
OSHA	OSHA PEL (Ceiling) (ppm)	20 ppm
BROMODICHLOROMETHANE (75-27-4)		
ACGIH	Not applicable	
OSHA	Not applicable	
1,3-Butadiene (106-99-0)		
ACGIH	ACGIH TWA (ppm)	2 ppm

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

1,3-Butadiene (106-99-0)		
OSHA	OSHA PEL (TWA) (ppm)	1 ppm
OSHA	OSHA PEL (STEL) (ppm)	5 ppm (see 29 CFR 1910.1051)
METHYL ETHYL KETONE (78-93-3)		
ACGIH	Not applicable	
OSHA	Not applicable	
Carbon disulfide (75-15-0)		
ACGIH	ACGIH TWA (ppm)	1 ppm
OSHA	OSHA PEL (TWA) (ppm)	20 ppm
OSHA	OSHA PEL (Ceiling) (ppm)	30 ppm
carbon tetrachloride, tetrachloromethane (56-23-5)		
ACGIH	Not applicable	
OSHA	Not applicable	
Chlorobenzene (108-90-7)		
ACGIH	ACGIH TWA (ppm)	10 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	350 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	75 ppm
Chloroform (67-66-3)		
ACGIH	ACGIH TWA (ppm)	10 ppm
OSHA	OSHA PEL (Ceiling) (mg/m ³)	240 mg/m ³
OSHA	OSHA PEL (Ceiling) (ppm)	50 ppm
Chloroethane (75-00-3)		
ACGIH	ACGIH TWA (ppm)	100 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	2600 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm
Chloromethane (R40) (74-87-3)		
ACGIH	ACGIH TWA (ppm)	50 ppm
ACGIH	ACGIH STEL (ppm)	100 ppm
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
OSHA	OSHA PEL (Ceiling) (ppm)	200 ppm
Cyclohexane (110-82-7)		
ACGIH	ACGIH TWA (ppm)	100 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	1050 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	300 ppm
CHLORODIBROMOMETHANE (124-48-1)		
ACGIH	Not applicable	
OSHA	Not applicable	
1,2-DIBROMOETHANE (106-93-4)		
ACGIH	Not applicable	
OSHA	Not applicable	
1,2-DICHLOROBENZENE (95-50-1)		
ACGIH	Not applicable	

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

1,2-DICHLOROBENZENE (95-50-1)		
OSHA	Not applicable	

1,3-DICHLOROBENZENE (541-73-1)		
ACGIH	Not applicable	
OSHA	Not applicable	

1,4-DICHLOROBENZENE (106-46-7)		
ACGIH	Not applicable	
OSHA	Not applicable	

1,1-dichloroethane (75-34-3)		
ACGIH	Not applicable	
OSHA	Not applicable	

1,2-dichloroethane, ethylene dichloride (107-06-2)		
ACGIH	Not applicable	
OSHA	Not applicable	

1,1-DICHLOROETHYLENE (75-35-4)		
ACGIH	Not applicable	
OSHA	Not applicable	

1,2-DICHLOROETHYLENE (CIS) (156-59-2)		
ACGIH	Not applicable	
OSHA	Not applicable	

trans-1,2-Dichloroethylene (156-60-5)		
ACGIH	ACGIH TWA (ppm)	200 ppm
OSHA	Not applicable	

1,2-DICHLOROPROPANE (78-87-5)		
ACGIH	Not applicable	
OSHA	Not applicable	

1,3-DICHLOROPROPENE (CIS) (10061-01-5)		
ACGIH	Not applicable	
OSHA	Not applicable	

1,3-DICHLOROPROPENE (TRANS) (10061-02-6)		
ACGIH	Not applicable	
OSHA	Not applicable	

p-Dioxane (123-91-1)		
ACGIH	Not applicable	
OSHA	Not applicable	

Ethyl alcohol (64-17-5)		
ACGIH	ACGIH STEL (ppm)	1000 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	1900 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

ETHYL ACETATE (141-78-6)		
ACGIH	Not applicable	
OSHA	Not applicable	

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Ethylbenzene (100-41-4)		
ACGIH	ACGIH TWA (ppm)	20 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

4-ETHYL TOLUENE (622-96-8)	
ACGIH	Not applicable
OSHA	Not applicable

Trichlorofluoromethane (75-69-4)	
ACGIH	Not applicable
OSHA	Not applicable

Dichlorodifluoromethane (R12) (75-71-8)		
ACGIH	ACGIH TWA (ppm)	1000 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	4950 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

1,1,2-TRICHLOROTRIFLUOROETHANE (76-13-1)	
ACGIH	Not applicable
OSHA	Not applicable

Dichlorotetrafluoroethane (R114) (76-14-2)		
ACGIH	ACGIH TWA (ppm)	1000 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	7000 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

n-Heptane (142-82-5)	
ACGIH	Not applicable
OSHA	Not applicable

HEXACHLORO-1,3-BUTADIENE (87-68-3)	
ACGIH	Not applicable
OSHA	Not applicable

n-Hexane (110-54-3)		
ACGIH	ACGIH TWA (ppm)	50 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	1800 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	500 ppm

METHYL N-BUTYL KETONE (591-78-6)	
ACGIH	Not applicable
OSHA	Not applicable

2-Pentanone, 4-methyl- (108-10-1)		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	ACGIH STEL (ppm)	75 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	410 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

METHYLENE CHLORIDE (75-09-2)	
ACGIH	Not applicable
OSHA	Not applicable

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

tert-Butyl Methyl Ether (1634-04-4)		
ACGIH	Not applicable	
OSHA	Not applicable	
Isopropyl alcohol (67-63-0)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	400 ppm
OSHA	OSHA PEL (TWA) (mg/m ³)	980 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	400 ppm
Propylene (115-07-1)		
ACGIH	ACGIH TWA (ppm)	500 ppm
OSHA	Not applicable	
STYRENE (100-42-5)		
ACGIH	Not applicable	
OSHA	Not applicable	
1,1,2,2-TETRACHLOROETHANE (79-34-5)		
ACGIH	Not applicable	
OSHA	Not applicable	
TETRACHLOROETHYLENE (127-18-4)		
ACGIH	Not applicable	
OSHA	Not applicable	
TETRAHYDROFURAN (109-99-9)		
ACGIH	Not applicable	
OSHA	Not applicable	
Toluene (108-88-3)		
ACGIH	ACGIH TWA (ppm)	20 ppm
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
OSHA	OSHA PEL (Ceiling) (ppm)	300 ppm
1,1,1-trichloroethane (71-55-6)		
ACGIH	Not applicable	
OSHA	Not applicable	
1,1,2-trichloroethane (79-00-5)		
ACGIH	Not applicable	
OSHA	Not applicable	
1,2,4-TRICHLOROBENZENE (120-82-1)		
ACGIH	Not applicable	
OSHA	Not applicable	
TRICHLOROETHYLENE (79-01-6)		
ACGIH	Not applicable	
OSHA	Not applicable	
1,2,4-TRIMETHYLBENZENE (95-63-6)		
ACGIH	Not applicable	
OSHA	Not applicable	

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

1,3,5-TRIMETHYLBENZENE (108-67-8)		
ACGIH	Not applicable	
OSHA	Not applicable	
VINYL ACETATE (108-05-4)		
ACGIH	Not applicable	
OSHA	Not applicable	
m-xylene (108-38-3)		
ACGIH	Not applicable	
OSHA	Not applicable	
O-XYLENE (95-47-6)		
ACGIH	Not applicable	
OSHA	Not applicable	
p-xylene (106-42-3)		
ACGIH	Not applicable	
OSHA	Not applicable	
Vinyl chloride (75-01-4)		
ACGIH	ACGIH TWA (ppm)	1 ppm
OSHA	OSHA PEL (TWA) (ppm)	1 ppm
OSHA	OSHA PEL (STEL) (ppm)	5 ppm (see 29 CFR 1910.1017)
Nitrogen (7727-37-9)		
ACGIH	Not applicable	
OSHA	Not applicable	

8.2. Exposure controls

Appropriate engineering controls	: Ensure exposure is below occupational exposure limits. Provide adequate general and local exhaust ventilation. Systems under pressure should be regularly checked for leakages. Oxygen detectors should be used when asphyxiating gases may be released. Consider work permit system e.g. for maintenance activities.
Hand protection	: Wear working gloves when handling gas containers. 29 CFR 1910.138: Hand Protection.
Eye protection	: Wear safety glasses with side shields. 29 CFR 1910.133: Eye and Face Protection.
Skin and body protection	: Wear suitable protective clothing, e.g. - lab coats, coveralls or flame resistant clothing.
Respiratory protection	: None necessary during normal and routine operations. See Sections 5 & 6.
Thermal hazard protection	: None necessary during normal and routine operations.
Environmental exposure controls	: Refer to local regulations for restriction of emissions to the atmosphere. See section 13 for specific methods for waste gas treatment.
Other information	: Wear safety shoes while handling containers. 29 CFR 1910.136: Foot Protection.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Gas
Appearance	: Clear, colorless gas.
Color	: Colorless
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: Not applicable - not flammable

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: See Section 2.1 and 2.2
Explosion limits	: Not applicable - not flammable
Explosive properties	: Not applicable - not flammable.
Oxidizing properties	: None.
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Molecular mass	: Not applicable for gas-mixtures.
Relative gas density	: Similar to air
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

None known.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None known.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

Under normal conditions of storage and use hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Acetone (67-64-1)	
LC50 inhalation rat (mg/l)	50100 mg/m ³ (Exposure time: 8 h)
LC50 inhalation rat (ppm)	29811.91 ppm/4h
ATE US (gases)	29811.910 ppmV/4h
ATE US (vapors)	50.100 mg/l/4h
ATE US (dust, mist)	50.100 mg/l/4h
Benzene (71-43-2)	
LD50 oral rat	930 mg/kg
LC50 inhalation rat (ppm)	13230 (13050 - 14380) ppm/4h
ATE US (oral)	930.000 mg/kg body weight
ATE US (gases)	13230.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

BENZYL CHLORIDE (100-44-7)	
LC50 inhalation rat (ppm)	101.04867 ppm/4h
ATE US (oral)	500.000 mg/kg body weight
ATE US (gases)	100.000 ppmV/4h
METHYL TRIBROMIDE (75-25-2)	
ATE US (oral)	500.000 mg/kg body weight
ATE US (gases)	700.000 ppmV/4h
Bromomethane (74-83-9)	
LD50 oral rat	214 mg/kg
LC50 inhalation rat (ppm)	425 ppm/4h
ATE US (oral)	214.000 mg/kg body weight
ATE US (gases)	425.000 ppmV/4h
BROMODICHLOROMETHANE (75-27-4)	
ATE US (oral)	500.000 mg/kg body weight
1,3-Butadiene (106-99-0)	
LD50 oral rat	5480 mg/kg
LC50 inhalation rat (mg/l)	285 g/m ³ (Exposure time: 4 h)
LC50 inhalation rat (ppm)	110000 ppm/4h
Carbon disulfide (75-15-0)	
LD50 oral rat	3188 mg/kg
LC50 inhalation rat (mg/l)	25 g/m ³ (Exposure time: 2 h)
LC50 inhalation rat (ppm)	5676.52 ppm/4h
ATE US (oral)	3188.000 mg/kg body weight
ATE US (gases)	5676.520 ppmV/4h
ATE US (vapors)	25.000 mg/l/4h
ATE US (dust, mist)	25.000 mg/l/4h
carbon tetrachloride, tetrachloromethane (56-23-5)	
LC50 inhalation rat (ppm)	8000 ppm/4h
ATE US (oral)	100.000 mg/kg body weight
ATE US (dermal)	300.000 mg/kg body weight
ATE US (gases)	700.000 ppmV/4h
ATE US (vapors)	3.000 mg/l/4h
ATE US (dust, mist)	0.500 mg/l/4h
Chlorobenzene (108-90-7)	
LD50 oral rat	2914 mg/kg
LC50 inhalation rat (mg/l)	13.5 mg/l (Exposure time: 7 h)
ATE US (oral)	2914.000 mg/kg body weight
ATE US (gases)	4500.000 ppmV/4h
ATE US (vapors)	13.500 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h
Chloroform (67-66-3)	
LC50 inhalation rat (mg/l)	47702 mg/m ³ (Exposure time: 4 h)
LC50 inhalation rat (ppm)	9769.76 ppm/4h
ATE US (gases)	9769.760 ppmV/4h
ATE US (vapors)	47.702 mg/l/4h
ATE US (dust, mist)	47.702 mg/l/4h
Chloroethane (75-00-3)	
LC50 inhalation rat (mg/l)	152 g/m ³ (Exposure time: 2 h)
LC50 inhalation rat (ppm)	40187.89 ppm/4h
ATE US (gases)	40187.890 ppmV/4h
ATE US (vapors)	152.000 mg/l/4h
ATE US (dust, mist)	152.000 mg/l/4h

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chloromethane (R40) (74-87-3)	
LD50 oral rat	1800 mg/kg
LC50 inhalation rat (mg/l)	5300 mg/m ³ (Exposure time: 4 h)
LC50 inhalation rat (ppm)	4150 ppm/4h
ATE US (oral)	1800.000 mg/kg body weight
ATE US (gases)	4150.000 ppmV/4h
ATE US (vapors)	5.300 mg/l/4h
ATE US (dust, mist)	5.300 mg/l/4h
Cyclohexane (110-82-7)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	13.9 mg/l/4h
LC50 inhalation rat (ppm)	9500 ppm/4h
1,2-DIBROMOETHANE (106-93-4)	
LC50 inhalation rat (ppm)	657.84529 ppm/4h
ATE US (oral)	100.000 mg/kg body weight
ATE US (dermal)	300.000 mg/kg body weight
ATE US (gases)	700.000 ppmV/4h
1,2-DICHLOROBENZENE (95-50-1)	
ATE US (oral)	500.000 mg/kg body weight
1,3-DICHLOROBENZENE (541-73-1)	
LC50 inhalation rat (ppm)	1875.934 ppm/4h
ATE US (oral)	500.000 mg/kg body weight
ATE US (gases)	700.000 ppmV/4h
1,4-DICHLOROBENZENE (106-46-7)	
LC50 inhalation rat (ppm)	1875.934 ppm/4h
ATE US (gases)	700.000 ppmV/4h
1,1-dichloroethane (75-34-3)	
LC50 inhalation rat (ppm)	13000 ppm/4h
ATE US (oral)	500.000 mg/kg body weight
ATE US (gases)	13000.000 ppmV/4h
1,2-dichloroethane, ethylene dichloride (107-06-2)	
LC50 inhalation rat (ppm)	1323 ppm/4h
ATE US (oral)	500.000 mg/kg body weight
ATE US (gases)	1323.000 ppmV/4h
1,1-DICHLOROETHYLENE (75-35-4)	
LC50 inhalation rat (ppm)	6350 ppm/4h
ATE US (gases)	4500.000 ppmV/4h
1,2-DICHLOROETHYLENE (CIS) (156-59-2)	
ATE US (gases)	4500.000 ppmV/4h
trans-1,2-Dichloroethylene (156-60-5)	
LC50 inhalation rat (ppm)	24100 ppm/4h
ATE US (gases)	4500.000 ppmV/4h
1,2-DICHLOROPROPANE (78-87-5)	
LC50 inhalation rat (ppm)	4284 ppm/4h
ATE US (oral)	500.000 mg/kg body weight
ATE US (gases)	4500.000 ppmV/4h
1,3-DICHLOROPROPENE (CIS) (10061-01-5)	
ATE US (oral)	100.000 mg/kg body weight
ATE US (dermal)	300.000 mg/kg body weight
ATE US (gases)	4500.000 ppmV/4h

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

p-Dioxane (123-91-1)	
LC50 inhalation rat (ppm)	9023.64 ppm/4h
Ethyl alcohol (64-17-5)	
LC50 inhalation rat (mg/l)	124.7 mg/l/4h
LC50 inhalation rat (ppm)	66180 ppm/4h
Ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg
LD50 dermal rabbit	15354 mg/kg
LC50 inhalation rat (mg/l)	17.2 mg/l/4h
LC50 inhalation rat (ppm)	8954.02 ppm/4h
ATE US (oral)	3500.000 mg/kg body weight
ATE US (dermal)	15354.000 mg/kg body weight
ATE US (gases)	8954.020 ppmV/4h
ATE US (vapors)	17.200 mg/l/4h
ATE US (dust, mist)	17.200 mg/l/4h
Trichlorofluoromethane (75-69-4)	
LC50 inhalation rat (ppm)	32500 ppm/4h
Dichlorodifluoromethane (R12) (75-71-8)	
LC50 inhalation rat (ppm)	800000 ppm/4h
ATE US (gases)	800000.000 ppmV/4h
1,1,2-TRICHLOROTRIFLUOROETHANE (76-13-1)	
LC50 inhalation rat (ppm)	38500 ppm/4h
Dichlorotetrafluoroethane (R114) (76-14-2)	
LC50 inhalation rat (mg/l)	72 lb/h (Exposure time: 30 min)
LC50 inhalation rat (ppm)	254520 ppm/4h
ATE US (gases)	254520.000 ppmV/4h
n-Heptane (142-82-5)	
LC50 inhalation rat (ppm)	25126 ppm/4h
HEXACHLORO-1,3-BUTADIENE (87-68-3)	
LC50 inhalation rat (ppm)	59.07609 ppm/4h
ATE US (gases)	10.000 ppmV/4h
n-Hexane (110-54-3)	
LD50 dermal rabbit	3000 mg/kg
LC50 inhalation rat (ppm)	48000 ppm/4h
ATE US (dermal)	3000.000 mg/kg body weight
ATE US (gases)	48000.000 ppmV/4h
2-Pentanone, 4-methyl- (108-10-1)	
LD50 oral rat	2080 mg/kg
LD50 dermal rabbit	> 16000 mg/kg
LC50 inhalation rat (mg/l)	8.2 mg/l/4h
LC50 inhalation rat (ppm)	16000 ppm/4h
ATE US (oral)	2080.000 mg/kg body weight
ATE US (gases)	16000.000 ppmV/4h
ATE US (vapors)	8.200 mg/l/4h
ATE US (dust, mist)	8.200 mg/l/4h
METHYLENE CHLORIDE (75-09-2)	
LC50 inhalation rat (ppm)	20105 ppm/4h
tert-Butyl Methyl Ether (1634-04-4)	
LD50 oral rat	2963 mg/kg
LD50 dermal rabbit	10000 mg/kg
LC50 inhalation rat (ppm)	23576 ppm/4h
ATE US (oral)	2963.000 mg/kg body weight

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

tert-Butyl Methyl Ether (1634-04-4)	
ATE US (dermal)	10000.000 mg/kg body weight
ATE US (gases)	23576.000 ppmV/4h
Isopropyl alcohol (67-63-0)	
LD50 oral rat	4396 mg/kg
LD50 dermal rabbit	12800 mg/kg
LC50 inhalation rat (ppm)	22624 ppm/4h (Exposure time: 8 h)
ATE US (oral)	4396.000 mg/kg body weight
ATE US (dermal)	12800.000 mg/kg body weight
ATE US (gases)	22624.000 ppmV/4h
Propylene (115-07-1)	
LC50 inhalation rat (mg/l)	658 mg/l/4h
LC50 inhalation rat (ppm)	49957.23 ppm/4h
STYRENE (100-42-5)	
LC50 inhalation rat (ppm)	2770.14 ppm/4h
ATE US (gases)	2770.140 ppmV/4h
1,1,2,2-TETRACHLOROETHANE (79-34-5)	
ATE US (gases)	100.000 ppmV/4h
TETRACHLOROETHYLENE (127-18-4)	
LC50 inhalation rat (ppm)	7130.03 ppm/4h
TETRAHYDROFURAN (109-99-9)	
LC50 inhalation rat (ppm)	17.3 ppm/4h
Toluene (108-88-3)	
LD50 oral rat	636 mg/kg
LD50 dermal rabbit	8390 mg/kg
LC50 inhalation rat (mg/l)	12.5 mg/l/4h
LC50 inhalation rat (ppm)	13001.09 ppm/4h
ATE US (oral)	636.000 mg/kg body weight
ATE US (dermal)	8390.000 mg/kg body weight
ATE US (gases)	13001.090 ppmV/4h
ATE US (vapors)	12.500 mg/l/4h
ATE US (dust, mist)	12.500 mg/l/4h
1,1,1-trichloroethane (71-55-6)	
LC50 inhalation rat (ppm)	17000 ppm/4h
ATE US (gases)	17000.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h
1,1,2-trichloroethane (79-00-5)	
LC50 inhalation rat (ppm)	4051 ppm/4h
ATE US (oral)	500.000 mg/kg body weight
ATE US (dermal)	1100.000 mg/kg body weight
ATE US (gases)	4051.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h
1,2,4-TRICHLOROENZENE (120-82-1)	
ATE US (oral)	500.000 mg/kg body weight
TRICHLOROETHYLENE (79-01-6)	
LC50 inhalation rat (ppm)	13091.24 ppm/4h
ATE US (gases)	13091.240 ppmV/4h
1,2,4-TRIMETHYLBENZENE (95-63-6)	
LC50 inhalation rat (ppm)	3661.09 ppm/4h
ATE US (gases)	3661.090 ppmV/4h

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

1,3,5-TRIMETHYLBENZENE (108-67-8)	
ATE US (gases)	4500.000 ppmV/4h
VINYL ACETATE (108-05-4)	
LC50 inhalation rat (ppm)	3237.28 ppm/4h
ATE US (gases)	4500.000 ppmV/4h
m-xylene (108-38-3)	
LC50 inhalation rat (ppm)	4550 ppm/4h
ATE US (dermal)	1100.000 mg/kg body weight
ATE US (gases)	4550.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h
O-XYLENE (95-47-6)	
LC50 inhalation rat (ppm)	4550 ppm/4h
ATE US (dermal)	1100.000 mg/kg body weight
ATE US (gases)	4550.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h
p-xylene (106-42-3)	
ATE US (dermal)	1100.000 mg/kg body weight
ATE US (gases)	4500.000 ppmV/4h
Vinyl chloride (75-01-4)	
LD50 oral rat	500 mg/kg
Nitrogen (7727-37-9)	
LC50 inhalation rat (ppm)	820000 ppm/4h
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Benzene (71-43-2)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity, 2 - Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list	Yes
In OSHA Specifically Regulated Carcinogen list	Yes
Bromomethane (74-83-9)	
IARC group	3 - Not classifiable
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity
1,3-Butadiene (106-99-0)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity, 2 - Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list	Yes
In OSHA Specifically Regulated Carcinogen list	Yes
Chloroform (67-66-3)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity, 3 - Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list	Yes
Chloroethane (75-00-3)	
IARC group	3 - Not classifiable
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chloromethane (R40) (74-87-3)	
IARC group	3 - Not classifiable

Ethyl alcohol (64-17-5)	
IARC group	1 - Carcinogenic to humans
In OSHA Hazard Communication Carcinogen list	Yes

Ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity
In OSHA Hazard Communication Carcinogen list	Yes

2-Pentanone, 4-methyl- (108-10-1)	
IARC group	2B - Possibly carcinogenic to humans
National Toxicology Program (NTP) Status	1 - Evidence of Carcinogenicity
In OSHA Hazard Communication Carcinogen list	Yes

Isopropyl alcohol (67-63-0)	
IARC group	3 - Not classifiable

Propylene (115-07-1)	
IARC group	3 - Not classifiable

Toluene (108-88-3)	
IARC group	3 - Not classifiable

Vinyl chloride (75-01-4)	
IARC group	1 - Carcinogenic to humans
National Toxicology Program (NTP) Status	2 - Known Human Carcinogens
In OSHA Hazard Communication Carcinogen list	Yes
In OSHA Specifically Regulated Carcinogen list	Yes

Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May displace oxygen and cause rapid suffocation.
Symptoms/injuries after skin contact	: Adverse effects not expected from this product.
Symptoms/injuries after eye contact	: Adverse effects not expected from this product.
Symptoms/injuries after ingestion	: Ingestion is not considered a potential route of exposure.
Symptoms/injuries upon intravenous administration	: Not known.
Chronic symptoms	: Adverse effects not expected from this product.

SECTION 12: Ecological information

12.1. Toxicity

Acetone (67-64-1)	
LC50 fish 1	4.74 - 6.33 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss)
EC50 Daphnia 1	10294 - 17704 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	6210 - 8120 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
EC50 Daphnia 2	12600 - 12700 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Benzene (71-43-2)	
LC50 fish 1	10.7 - 14.7 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	8.76 - 15.6 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 other aquatic organisms 1	29 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata)
LC50 fish 2	5.3 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 Daphnia 2	10 mg/l (Exposure time: 48 h - Species: Daphnia magna)
Bromomethane (74-83-9)	
LC50 fish 1	11 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	2 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	3.2 mg/l (Exposure time: 48 h - Species: Scenedesmus quadricauda)
LC50 fish 2	0.8 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [semi-static])
EC50 Daphnia 2	1.7 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
Carbon disulfide (75-15-0)	
LC50 fish 1	3 - 5.8 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [semi-static])
EC50 Daphnia 1	2.1 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	4 mg/l (Exposure time: 96 h - Species: Poecilia reticulata [static])
Chlorobenzene (108-90-7)	
LC50 fish 1	7 - 8.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	0.59 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	4.5 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
Chloroform (67-66-3)	
LC50 fish 1	71 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	29 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC50 fish 2	18 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
Chloroethane (75-00-3)	
EC50 Daphnia 1	58 mg/l (Exposure time: 48 h - Species: Daphnia magna)

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chloroethane (75-00-3)	
EC50 other aquatic organisms 1	39 mg/l (Exposure time: 72 h - Species: <i>Desmodesmus subspicatus</i>)
Chloromethane (R40) (74-87-3)	
LC50 fish 1	550 mg/l (Exposure time: 96 h - Species: <i>Lepomis macrochirus</i> [static])
Cyclohexane (110-82-7)	
LC50 fish 1	3.96 - 5.18 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through])
EC50 other aquatic organisms 1	> 500 mg/l (Exposure time: 72 h - Species: <i>Desmodesmus subspicatus</i>)
LC50 fish 2	23.03 - 42.07 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static])

trans-1,2-Dichloroethylene (156-60-5)	
LC50 fish 1	135 mg/l (Exposure time: 96 h - Species: <i>Lepomis macrochirus</i> [static])

Ethyl alcohol (64-17-5)	
LC50 fish 1	12.0 - 16.0 ml/l (Exposure time: 96 h - Species: <i>Oncorhynchus mykiss</i> [static])
EC50 Daphnia 1	9268 - 14221 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
LC50 fish 2	> 100 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static])
EC50 Daphnia 2	2 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i> [Static])

Ethylbenzene (100-41-4)	
LC50 fish 1	11.0 - 18.0 mg/l (Exposure time: 96 h - Species: <i>Oncorhynchus mykiss</i> [static])
EC50 Daphnia 1	1.8 - 2.4 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
EC50 other aquatic organisms 1	4.6 mg/l (Exposure time: 72 h - Species: <i>Pseudokirchneriella subcapitata</i>)
LC50 fish 2	4.2 mg/l (Exposure time: 96 h - Species: <i>Oncorhynchus mykiss</i> [semi-static])
EC50 other aquatic organisms 2	> 438 mg/l (Exposure time: 96 h - Species: <i>Pseudokirchneriella subcapitata</i>)

n-Hexane (110-54-3)	
LC50 fish 1	2.1 - 2.98 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through])

2-Pentanone, 4-methyl- (108-10-1)	
LC50 fish 1	496 - 514 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through])
EC50 Daphnia 1	170 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
EC50 other aquatic organisms 1	400 mg/l (Exposure time: 96 h - Species: <i>Pseudokirchneriella subcapitata</i>)

Isopropyl alcohol (67-63-0)	
LC50 fish 1	9640 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through])
EC50 Daphnia 1	13299 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
EC50 other aquatic organisms 1	> 1000 mg/l (Exposure time: 96 h - Species: <i>Desmodesmus subspicatus</i>)
LC50 fish 2	11130 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static])
EC50 other aquatic organisms 2	> 1000 mg/l (Exposure time: 72 h - Species: <i>Desmodesmus subspicatus</i>)

Toluene (108-88-3)	
LC50 fish 1	15.22 - 19.05 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through])
EC50 Daphnia 1	5.46 - 9.83 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i> [Static])
EC50 other aquatic organisms 1	> 433 mg/l (Exposure time: 96 h - Species: <i>Pseudokirchneriella subcapitata</i>)
LC50 fish 2	12.6 mg/l (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static])
EC50 Daphnia 2	11.5 mg/l (Exposure time: 48 h - Species: <i>Daphnia magna</i>)
EC50 other aquatic organisms 2	12.5 mg/l (Exposure time: 72 h - Species: <i>Pseudokirchneriella subcapitata</i> [static])

Vinyl chloride (75-01-4)	
LC50 fish 1	210 mg/l (Exposure time: 96 h - Species: <i>Brachydanio rerio</i>)
EC50 other aquatic organisms 1	943 mg/l (Exposure time: 48 h - Species: <i>Chilomonas paramecium</i>)

12.2. Persistence and degradability

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Bromomethane (74-83-9)	
Persistence and degradability	No data available.

1,3-Butadiene (106-99-0)	
Persistence and degradability	Not readily biodegradable.

Chloroethane (75-00-3)	
Persistence and degradability	Not readily biodegradable.

Chloromethane (R40) (74-87-3)	
Persistence and degradability	The substance is biodegradable. Unlikely to persist.

Dichlorodifluoromethane (R12) (75-71-8)	
Persistence and degradability	No data available.

Dichlorotetrafluoroethane (R114) (76-14-2)	
Persistence and degradability	No data available.

Propylene (115-07-1)	
Persistence and degradability	The substance is biodegradable. Unlikely to persist.

Vinyl chloride (75-01-4)	
Persistence and degradability	The substance is biodegradable. Unlikely to persist.

Nitrogen (7727-37-9)	
Persistence and degradability	No ecological damage caused by this product.

12.3. Bioaccumulative potential

Acetone (67-64-1)	
BCF fish 1	0.69
Log Pow	-0.24

Benzene (71-43-2)	
BCF fish 1	3.5 - 4.4
Log Pow	1.83

Bromomethane (74-83-9)	
Log Pow	1.19
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

1,3-Butadiene (106-99-0)	
BCF fish 1	13 - 19.1
Log Pow	1.99
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

Carbon disulfide (75-15-0)	
BCF fish 1	4.3 - 8

Chlorobenzene (108-90-7)	
BCF fish 1	(negligible potential in fish)
Log Pow	2.8

Chloroform (67-66-3)	
BCF fish 1	1.4 - 13
Log Pow	2 (at 25 °C)

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chloroethane (75-00-3)	
Log Pow	1.43
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.
Chloromethane (R40) (74-87-3)	
Log Pow	0.91
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.
Cyclohexane (110-82-7)	
Log Pow	3.44

trans-1,2-Dichloroethylene (156-60-5)	
Log Pow	1.48

Ethyl alcohol (64-17-5)	
Log Pow	-0.32

Ethylbenzene (100-41-4)	
BCF fish 1	15
Log Pow	3.118

Dichlorodifluoromethane (R12) (75-71-8)	
Log Pow	2.16
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

Dichlorotetrafluoroethane (R114) (76-14-2)	
Log Pow	2.82
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

2-Pentanone, 4-methyl- (108-10-1)	
Log Pow	1.19

Isopropyl alcohol (67-63-0)	
Log Pow	0.05 (at 25 °C)

Propylene (115-07-1)	
Log Pow	1.77
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

Toluene (108-88-3)	
Log Pow	2.65

Vinyl chloride (75-01-4)	
BCF fish 1	(no significant bioaccumulation)
Log Pow	1.52
Bioaccumulative potential	Not expected to bioaccumulate due to the low log Kow (log Kow < 4). Refer to section 9.

Nitrogen (7727-37-9)	
Log Pow	Not applicable for inorganic gases.
Bioaccumulative potential	No ecological damage caused by this product.

12.4. Mobility in soil

Bromomethane (74-83-9)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

1,3-Butadiene (106-99-0)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chloroethane (75-00-3)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.
Chloromethane (R40) (74-87-3)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

Dichlorodifluoromethane (R12) (75-71-8)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.
Dichlorotetrafluoroethane (R114) (76-14-2)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

Propylene (115-07-1)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.

Vinyl chloride (75-01-4)	
Ecology - soil	Because of its high volatility, the product is unlikely to cause ground or water pollution.
Nitrogen (7727-37-9)	
Ecology - soil	No ecological damage caused by this product.

12.5. Other adverse effects

- Effect on ozone layer : Harms public health and the environment by destroying ozone in the upper atmosphere
- Effect on the global warming : Contains greenhouse gas(es) not covered by 842/2006/EC.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

- Waste treatment methods : Contact supplier if guidance is required. Do not discharge into any place where its accumulation could be dangerous. Ensure that the emission levels from local regulations or operating permits are not exceeded.
- Waste disposal recommendations : Refer to the CGA Pamphlet P-63 "Disposal of Gases" available at www.cganet.com for more guidance on suitable disposal methods.

SECTION 14: Transport information

Department of Transportation (DOT)

- In accordance with DOT
- Transport document description : UN1956 Compressed gas, n.o.s.
- UN-No.(DOT) : UN1956
- Proper Shipping Name (DOT) : Compressed gas, n.o.s.
- Hazard labels (DOT) : 2.2 - Non-flammable gas



- DOT Packaging Non Bulk (49 CFR 173.xxx) : 302;305
- DOT Packaging Bulk (49 CFR 173.xxx) : 314;315
- DOT Symbols : G - Identifies PSN requiring a technical name
- DOT Packaging Exceptions (49 CFR 173.xxx) : 306;307
- DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 75 kg

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 150 kg

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Additional information

Other information : No supplementary information available.

ADR

Transport document description : UN 1956, 2.2, (E)

Class (ADR) : 2 - Gases

Hazard identification number (Kemler No.) : 20

Classification code (ADR) : 1A

Hazard labels (ADR) : 2.2 - Non-flammable compressed gas



Orange plates :



Tunnel restriction code (ADR) : E

Limited quantities (ADR) : 120ml

Excepted quantities (ADR) : E1

Transport by sea

UN-No. (IMDG) : 1956

Proper Shipping Name (IMDG) : COMPRESSED GAS, N.O.S.

Class (IMDG) : 2 - Gases

Air transport

UN-No. (IATA) : 1956

Proper Shipping Name (IATA) : COMPRESSED GAS, N.O.S.

Class (IATA) : 2

SECTION 15: Regulatory information

15.1. US Federal regulations

Acetone (67-64-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag : T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.

Benzene (71-43-2)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission Reporting : 0.1 %

Bromomethane (74-83-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Listed on the United States SARA Section 302

Subject to reporting requirements of United States SARA Section 313

SARA Section 302 Threshold Planning Quantity (TPQ) : 1000

SARA Section 313 - Emission Reporting : 1.0 %

1,3-Butadiene (106-99-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission Reporting : 0.1 %

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Carbon disulfide (75-15-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 302 Threshold Planning Quantity (TPQ)	10000
SARA Section 313 - Emission Reporting	1.0 %

Chlorobenzene (108-90-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 %

Chloroform (67-66-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on the United States SARA Section 302 Subject to reporting requirements of United States SARA Section 313	
SARA Section 302 Threshold Planning Quantity (TPQ)	10000
SARA Section 313 - Emission Reporting	0.1 %

Chloroethane (75-00-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 %

Chloromethane (R40) (74-87-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 %

Cyclohexane (110-82-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 %

trans-1,2-Dichloroethylene (156-60-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Ethyl alcohol (64-17-5)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

Ethylbenzene (100-41-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	0.1 %

Dichlorodifluoromethane (R12) (75-71-8)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 %

Dichlorotetrafluoroethane (R114) (76-14-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 %

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

n-Hexane (110-54-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 %

2-Pentanone, 4-methyl- (108-10-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 %

Isopropyl alcohol (67-63-0)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.
SARA Section 313 - Emission Reporting	1.0 % (only if manufactured by the strong acid process, no supplier notification)

Propylene (115-07-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 %

Toluene (108-88-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	1.0 %

Vinyl chloride (75-01-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
SARA Section 313 - Emission Reporting	0.1 %

Nitrogen (7727-37-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. International regulations

CANADA

Acetone (67-64-1)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Benzene (71-43-2)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Bromomethane (74-83-9)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class A - Compressed Gas Class D Division 1 Subdivision A - Very toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material

1,3-Butadiene (106-99-0)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class A - Compressed Gas Class B Division 1 - Flammable Gas Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class F - Dangerously Reactive Material

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Carbon disulfide (75-15-0)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Chlorobenzene (108-90-7)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Chloroform (67-66-3)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Chloroethane (75-00-3)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class A - Compressed Gas Class B Division 1 - Flammable Gas

Chloromethane (R40) (74-87-3)	
Listed on the Canadian DSL (Domestic Substances List)	

Cyclohexane (110-82-7)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

trans-1,2-Dichloroethylene (156-60-5)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Ethyl alcohol (64-17-5)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Ethylbenzene (100-41-4)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Dichlorodifluoromethane (R12) (75-71-8)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class A - Compressed Gas

Dichlorotetrafluoroethane (R114) (76-14-2)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class A - Compressed Gas

n-Hexane (110-54-3)	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects Class D Division 2 Subdivision B - Toxic material causing other toxic effects

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

2-Pentanone, 4-methyl- (108-10-1)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Class B Division 2 - Flammable Liquid
Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

Isopropyl alcohol (67-63-0)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Class B Division 2 - Flammable Liquid
Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Propylene (115-07-1)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Class A - Compressed Gas
Class B Division 1 - Flammable Gas

Toluene (108-88-3)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Class B Division 2 - Flammable Liquid
Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
Class D Division 2 Subdivision B - Toxic material causing other toxic effects

Vinyl chloride (75-01-4)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Class A - Compressed Gas
Class B Division 1 - Flammable Gas
Class D Division 2 Subdivision A - Very toxic material causing other toxic effects
Class D Division 2 Subdivision B - Toxic material causing other toxic effects
Class F - Dangerously Reactive Material

Nitrogen (7727-37-9)

Listed on the Canadian DSL (Domestic Substances List)

WHMIS Classification

Class A - Compressed Gas

EU-Regulations

Acetone (67-64-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Benzene (71-43-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Bromomethane (74-83-9)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

1,3-Butadiene (106-99-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Carbon disulfide (75-15-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Chlorobenzene (108-90-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Chloroform (67-66-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Chloroethane (75-00-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Chloromethane (R40) (74-87-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Cyclohexane (110-82-7)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

trans-1,2-Dichloroethylene (156-60-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Ethyl alcohol (64-17-5)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Ethylbenzene (100-41-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Dichlorodifluoromethane (R12) (75-71-8)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Dichlorotetrafluoroethane (R114) (76-14-2)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Listed on ELINCS (European List of Notified Chemical Substances)

n-Hexane (110-54-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

2-Pentanone, 4-methyl- (108-10-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Isopropyl alcohol (67-63-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Propylene (115-07-1)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Toluene (108-88-3)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Vinyl chloride (75-01-4)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Nitrogen (7727-37-9)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

No additional information available

National regulations

Acetone (67-64-1)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

Benzene (71-43-2)

Listed on IARC (International Agency for Research on Cancer)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on the Canadian IDL (Ingredient Disclosure List)

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Bromomethane (74-83-9)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Poisonous and Deleterious Substances Control Law
Japanese Pollutant Release and Transfer Register Law (PRTR Law)

1,3-Butadiene (106-99-0)

Listed on IARC (International Agency for Research on Cancer)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed as carcinogen on NTP (National Toxicology Program)
Listed on the Canadian IDL (Ingredient Disclosure List)

Carbon disulfide (75-15-0)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Poisonous and Deleterious Substances Control Law
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)

Chlorobenzene (108-90-7)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)

Chloroform (67-66-3)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Poisonous and Deleterious Substances Control Law
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)

Chloroethane (75-00-3)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Poisonous and Deleterious Substances Control Law
Listed on the Canadian IDL (Ingredient Disclosure List)

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chloromethane (R40) (74-87-3)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Poisonous and Deleterious Substances Control Law
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)

Cyclohexane (110-82-7)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

trans-1,2-Dichloroethylene (156-60-5)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)

Ethyl alcohol (64-17-5)

Listed on IARC (International Agency for Research on Cancer)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

Ethylbenzene (100-41-4)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)

Dichlorodifluoromethane (R12) (75-71-8)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Dichlorotetrafluoroethane (R114) (76-14-2)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)

n-Hexane (110-54-3)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)

2-Pentanone, 4-methyl- (108-10-1)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

Isopropyl alcohol (67-63-0)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Japanese ISHL (Industrial Safety and Health Law)
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Listed on the Canadian IDL (Ingredient Disclosure List)

Propylene (115-07-1)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

Toluene (108-88-3)

Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Poisonous and Deleterious Substances Control Law
Japanese Pollutant Release and Transfer Register Law (PRTR Law)
Listed on the Canadian IDL (Ingredient Disclosure List)

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Vinyl chloride (75-01-4)

Listed on IARC (International Agency for Research on Cancer)
 Listed on the AICS (Australian Inventory of Chemical Substances)
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
 Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
 Listed on the Korean ECL (Existing Chemicals List)
 Listed on NZIoC (New Zealand Inventory of Chemicals)
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
 Japanese Pollutant Release and Transfer Register Law (PRTR Law)
 Listed as carcinogen on NTP (National Toxicology Program)
 Listed on the Canadian IDL (Ingredient Disclosure List)

Nitrogen (7727-37-9)

Listed on the AICS (Australian Inventory of Chemical Substances)
 Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
 Listed on the Korean ECL (Existing Chemicals List)
 Listed on NZIoC (New Zealand Inventory of Chemicals)
 Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)

15.3. US State regulations

Benzene (71-43-2)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	No	Yes	6.4 µg/day

Bromomethane (74-83-9)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	No	

1,3-Butadiene (106-99-0)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	Yes	No	0.4 µg/day

Carbon disulfide (75-15-0)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	Yes	Yes	

Chloroform (67-66-3)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	No	No	20 µg/day

Chloroethane (75-00-3)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	150 µg/day

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Chloromethane (R40) (74-87-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	No	Yes	

Ethyl alcohol (64-17-5)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	Yes	No	No	

Ethylbenzene (100-41-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	54 µg/day

2-Pentanone, 4-methyl- (108-10-1)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	

Toluene (108-88-3)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
No	Yes	Yes	No	

Vinyl chloride (75-01-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	3 µg/day

Acetone (67-64-1)				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) List				

Benzene (71-43-2)				
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances U.S. - Pennsylvania - RTK (Right to Know) List				

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Bromomethane (74-83-9)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

1,3-Butadiene (106-99-0)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

Carbon disulfide (75-15-0)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Chlorobenzene (108-90-7)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Chloroform (67-66-3)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

Chloroethane (75-00-3)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Chloromethane (R40) (74-87-3)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Cyclohexane (110-82-7)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

trans-1,2-Dichloroethylene (156-60-5)

U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Ethyl alcohol (64-17-5)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Ethylbenzene (100-41-4)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Dichlorodifluoromethane (R12) (75-71-8)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Dichlorotetrafluoroethane (R114) (76-14-2)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List

n-Hexane (110-54-3)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

2-Pentanone, 4-methyl- (108-10-1)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Isopropyl alcohol (67-63-0)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Propylene (115-07-1)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Toluene (108-88-3)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) List

Vinyl chloride (75-01-4)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List
U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

Nitrogen (7727-37-9)

U.S. - Massachusetts - Right To Know List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

Indication of changes

: Revised safety data sheet in accordance with OSHA final rule on GHS implementation promulgated March 26, 2012.

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Other information

: This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product.

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of H-phrases:

Acute Tox. 1 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 1
Acute Tox. 2 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhalation) Category 3
Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1A	Carcinogenicity Category 1A
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Compressed gas	Gases under pressure Compressed gas
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Flam. Gas 1	Flammable gases Category 1
Flam. Liq. 1	Flammable liquids Category 1
Flam. Liq. 2	Flammable liquids Category 2
Flam. Liq. 3	Flammable liquids Category 3
Liquefied gas	Gases under pressure Liquefied gas
Muta. 1B	Germ cell mutagenicity Category 1B
Muta. 2	Germ cell mutagenicity Category 2
Ozone 1	Hazardous to the ozone layer Category 1
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
Skin Sens. 1B	Skin sensitization Category 1B
STOT RE 1	Specific target organ toxicity (repeated exposure) Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H220	Extremely flammable gas
H224	Extremely flammable liquid and vapor
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H301	Toxic if swallowed
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H319	Causes serious eye irritation
H330	Fatal if inhaled
H331	Toxic if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects (Inhalation)
H341	Suspected of causing genetic defects
H350	May cause cancer

62 Components in Nitrogen

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H372	Causes damage to organs through prolonged or repeated exposure
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H411	Toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
H420	Harms public health and the environment by destroying ozone in the upper atmosphere

SDS US (GHS HazCom 2012)

This Safety Data Sheet is offered pursuant to OSHA's Hazard Communication Standard, 29 CFR, 1910.1200. Other government regulations must be reviewed for applicability to this product. To the best of Air Liquide America Corporation'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 product 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.