25 Components in Nitrogen

Safety Data Sheet

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

Date of issue: 06/10/2015 Version: 2.0

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

1.1. Product identifier

Product form : Mixture

Product name : 25 Components in Nitrogen

Product code : SG-2026-00072

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) :

GHS04

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H280 - Contains gas under pressure; may explode if heated
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

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

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Name	Product identifier	%	GHS-US classification
Nitrogen	(CAS No) 7727-37-9	99.90025 - 99.99975	Compressed gas, H280
TETRAHYDROFURAN	(CAS No) 109-99-9	0.00001 - 0.00399	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335
Propylene	(CAS No) 115-07-1	0.00001 - 0.00399	Flam. Gas 1, H220 Liquefied gas, H280
n-Hexane	(CAS No) 110-54-3	0.00001 - 0.00399	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
METHYL TRIBROMIDE	(CAS No) 75-25-2	0.00001 - 0.00399	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation:gas), H331 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Aquatic Chronic 2, H411
METHYL ISOBUTYL KETONE	(CAS No) 108-10-1	0.00001 - 0.00399	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:gas), H332 Eye Irrit. 2A, H319 STOT SE 3, H335
Isooctane	(CAS No) 540-84-1	0.00001 - 0.00399	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
ETHYL ACETATE	(CAS No) 141-78-6	0.00001 - 0.00399	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
1,3-Butadiene	(CAS No) 106-99-0	0.00001 - 0.00399	Flam. Gas 1, H220 Liquefied gas, H280 Muta. 1B, H340 Carc. 1A, H350
Vinyl bromide	(CAS No) 593-60-2	0.00001 - 0.00399	Flam. Gas 1, H220 Liquefied gas, H280 Carc. 1B, H350
Carbon disulfide	(CAS No) 75-15-0	0.00001 - 0.00399	Flam. Liq. 2, H225 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Repr. 2, H361 STOT RE 1, H372
trans-1,2-Dichloroethylene	(CAS No) 156-60-5	0.00001 - 0.00399	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:gas), H332 Aquatic Chronic 3, H412
Isopropyl alcohol	(CAS No) 67-63-0	0.00001 - 0.00399	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Acetone	(CAS No) 67-64-1	0.00001 - 0.00399	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
Cyclohexane	(CAS No) 110-82-7	0.00001 - 0.00399	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
CHLORODIBROMOMETHANE	(CAS No) 124-48-1	0.00001 - 0.00399	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:vapour), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Muta. 2, H341 STOT SE 3, H336 Aquatic Chronic 2, H411

Name	Product identifier	%	GHS-US classification
3-chloropropene, allyl chloride	(CAS No) 107-05-1	0.00001 - 0.00399	Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Muta. 2, H341 Carc. 2, H351 STOT SE 3, H335 STOT RE 2, H373 Aquatic Acute 1, H400
METHYL ETHYL KETONE	(CAS No) 78-93-3	0.00001 - 0.00399	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
4-ETHYL TOLUENE	(CAS No) 622-96-8	0.00001 - 0.00399	Flam. Liq. 3, H226 Asp. Tox. 1, H304
BENZYL CHLORIDE	(CAS No) 100-44-7	0.00001 - 0.00399	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
BROMODICHLOROMETHANE	(CAS No) 75-27-4	0.00001 - 0.00399	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 Carc. 1B, H350 STOT SE 3, H335
METHYL N-BUTYL KETONE	(CAS No) 591-78-6	0.00001 - 0.00399	Flam. Liq. 3, H226 Repr. 2, H361 STOT SE 3, H336 STOT RE 1, H372
n-Heptane	(CAS No) 142-82-5	0.00001 - 0.00399	Flam. Liq. 2, H225 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
tert-Butyl Methyl Ether	(CAS No) 1634-04-4	0.00001 - 0.00399	Flam. Liq. 2, H225 Skin Irrit. 2, H315
p-Dioxane	(CAS No) 123-91-1	0.00001 - 0.00399	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 Carc. 2, H351 STOT SE 3, H335
VINYL ACETATE	(CAS No) 108-05-4	0.00001 - 0.00399	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:gas), H332 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

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.

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.

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

25 Components in Nitrogen	
ACGIH	Not applicable
OSHA	Not applicable

Nitrogen (7727-37-9)	
ACGIH	Not applicable
OSHA	Not applicable

1,3-Butadiene (106-99-0)		
ACGIH	ACGIH TWA (ppm)	2 ppm
OSHA	OSHA PEL (TWA) (ppm)	1 ppm
OSHA	OSHA PEL (STEL) (ppm)	5 ppm (see 29 CFR 1910.1051)

Isopropyl alcohol (67-63-0)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	400 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	980 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	400 ppm

3-chloropropene, allyl chloride (107-05-1)	
ACGIH	Not applicable
OSHA	Not applicable

4-ETHYL TOLUENE (622-96-8)	
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/m³)	2400 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

BENZYL CHLORIDE (100-44-7)	
ACGIH	Not applicable
OSHA	Not applicable

BROMODICHLOROMETHANE (75-27-4)	
ACGIH	Not applicable
OSHA	Not applicable

Vinyl bromide (593-60-2)		
ACGIH	ACGIH TWA (ppm)	0.5 ppm
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

CHLORODIBROMOMETHANE (124-48-1)	
ACGIH	Not applicable

CHLORODIBROMOMETHANE (124-48-1)	
OSHA	Not applicable

Cyclohexane (110-82-7)		
ACGIH	ACGIH TWA (ppm)	100 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	1050 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	300 ppm

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

Isooctane (540-84-1)	
ACGIH	Not applicable
OSHA	Not applicable

METHYL ETHYL KETONE (78-93-3)	
ACGIH	Not applicable
OSHA	Not applicable

METHYL ISOBUTYL KETONE (108-10-1)		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	ACGIH STEL (ppm)	75 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	410 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

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

METHYL TRIBROMIDE (75-25-2)	
ACGIH	Not applicable
OSHA	Not applicable

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

n-Hexane (110-54-3)		
ACGIH	ACGIH TWA (ppm)	50 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	1800 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	500 ppm

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

Propylene (115-07-1)		
ACGIH	ACGIH TWA (ppm)	500 ppm
OSHA	Not applicable	

tert-Butyl Methyl Ether (1634-04-4)	
ACGIH	Not applicable
OSHA	Not applicable

TETRAHYDROFURAN (109-99-9)	
ACGIH	Not applicable
OSHA	Not applicable

VINYL ACETATE (108-05-4)	
ACGIH	Not applicable
OSHA	Not applicable

trans-1,2-Dichloroethylene (156-60-5)		
ACGIH	ACGIH TWA (ppm)	200 ppm
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 : Sulfide-like

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

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

Nitrogen (7727-37-9)	
LC50 inhalation rat (ppm)	820000 ppm/4h

1,3-Butadiene (106-99-0)	
LD50 oral rat	5480 mg/kg
LC50 inhalation rat (mg/l)	285 g/m³ (Exposure time: 4 h)
LC50 inhalation rat (ppm)	110000 ppm/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

3-chloropropene, allyl chloride (107-05-1)	
ATE US (oral)	500.000 mg/kg body weight
ATE US (dermal)	1100.000 mg/kg body weight
ATE US (gases)	4500.000 ppmV/4h
ATE US (vapors)	11.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h

Acetone (67-64-1)	
LC50 inhalation rat (mg/l)	50100 mg/m³ (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

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

BROMODICHLOROMETHANE (75-27-4)	
ATE US (oral)	500.000 mg/kg body weight

Vinyl bromide (593-60-2)	
LC50 inhalation rat (ppm)	264575 ppm/4h
ATE US (gases)	264575.000 ppmV/4h

Carbon disulfide (75-15-0)	
LD50 oral rat	3188 mg/kg
LC50 inhalation rat (mg/l)	25 g/m³ (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

CHLORODIBROMOMETHANE (124-48-1)	
ATE US (oral)	500.000 mg/kg body weight
ATE US (vapors)	11.000 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

METHYL ISOBUTYL KETONE (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

METHYL TRIBROMIDE (75-25-2)	
ATE US (oral)	500.000 mg/kg body weight
ATE US (gases)	700.000 ppmV/4h

n-Heptane (142-82-5)	
LC50 inhalation rat (ppm)	25126 ppm/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

p-Dioxane (123-91-1)	
LC50 inhalation rat (ppm)	9023.64 ppm/4h

Propylene (115-07-1)	
LC50 inhalation rat (mg/l)	658 mg/l/4h
LC50 inhalation rat (ppm)	49957.23 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
ATE US (dermal)	10000.000 mg/kg body weight
ATE US (gases)	23576.000 ppmV/4h

TETRAHYDROFURAN (109-99-9)	
LC50 inhalation rat (ppm)	17.3 ppm/4h

VINYL ACETATE (108-05-4)	
LC50 inhalation rat (ppm)	3237.28 ppm/4h
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

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

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

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

Vinyl bromide (593-60-2)	
IARC group	2A - Probably carcinogenic to humans
National Toxicology Program (NTP) Status	3 - Reasonably anticipated to be Human Carcinogen
In OSHA Hazard Communication Carcinogen list	Yes

METHYL ISOBUTYL KETONE (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

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

Reproductive toxicity : Not classified

Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated exposure) : Not classified

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

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

Acetone (67-64-1)	
LC50 fish 1	4.74 - 6.33 ml/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)

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])

Cyclohexane (110-82-7)	
LC50 fish 1	3.96 - 5.18 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 other aquatic organisms 1	> 500 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)
LC50 fish 2	23.03 - 42.07 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

METHYL ISOBUTYL KETONE (108-10-1)	
LC50 fish 1	496 - 514 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	170 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	400 mg/l (Exposure time: 96 h - Species: Pseudokirchneriella subcapitata)

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

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

12.2. Persistence and degradability

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

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

Vinyl bromide (593-60-2)	
Persistence and degradability	No data available.

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

12.3. Bioaccumulative potential

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

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.

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

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

Vinyl bromide (593-60-2)	
Log Pow	1.57
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

Cyclohexane (110-82-7)	
Log Pow	3.44

METHYL ISOBUTYL KETONE (108-10-1)	
Log Pow	1.19

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.

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

12.4. Mobility in soil

Nitrogen (7727-37-9)	
Ecology - soil	No ecological damage caused by this product.

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

Vinyl bromide (593-60-2)	
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.

12.5. Other adverse effects

Effect on ozone layer : No known effects from this product.

Effect on the global warming : No known ecological damage caused by this product.

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

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)

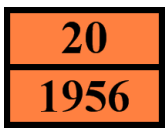
Class (ADR) : 2 - Gases

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

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

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 %

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)

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.

Vinyl bromide (593-60-2)	
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 %

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 %

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 %

METHYL ISOBUTYL KETONE (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 %

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 %

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 %

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

15.2. International regulations

CANADA

Nitrogen (7727-37-9)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Class A - Compressed Gas

1,3-Butadiene (106-99-0)	
Listed on the Canadian DSL (Domestic Sustances 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

Isopropyl alcohol (67-63-0)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision B - Toxic material causing other toxic effects

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

Vinyl bromide (593-60-2)
Listed on the Canadian DSL (Domestic Sustances List)

Carbon disulfide (75-15-0)	
Listed on the Canadian DSL (Domestic Sustances 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

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

METHYL ISOBUTYL KETONE (108-10-1)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Class B Division 2 - Flammable Liquid Class D Division 2 Subdivision A - Very toxic material causing other toxic effects

n-Hexane (110-54-3)	
Listed on the Canadian DSL (Domestic Sustances 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

Propylene (115-07-1)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Class A - Compressed Gas Class B Division 1 - Flammable Gas

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

EU-Regulations

Nitrogen (7727-37-9)
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)

Isopropyl alcohol (67-63-0)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Acetone (67-64-1)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Vinyl bromide (593-60-2)
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)

Cyclohexane (110-82-7)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

METHYL ISOBUTYL KETONE (108-10-1)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

n-Hexane (110-54-3)
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)

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

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)

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)

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)

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)

Vinyl bromide (593-60-2)

Listed on the AICS (Australian Inventory of Chemical Substances)
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)

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)

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)

METHYL ISOBUTYL KETONE (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)

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)

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)

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)

15.3. US State regulations

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

Vinyl bromide (593-60-2)				
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	No	No	No	

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	

METHYL ISOBUTYL KETONE (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	

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

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

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

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

Vinyl bromide (593-60-2)
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) 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

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

METHYL ISOBUTYL KETONE (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

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

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

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

SECTION 16: Other information

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

Full text of H-phrases:

Acute Tox. 2 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 2
Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) 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. 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
Repr. 2	Reproductive toxicity Category 2
Skin Irrit. 2	Skin corrosion/irritation Category 2
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
H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H280	Contains gas under pressure; may explode if heated
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
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
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

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.