

Safety Data Sheet



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

1.1 Product identifier

Product Name

- Acetone (50-499 ppb), Benzene (50-499 ppb), Cyclohexane (50-499 ppb), Diethyl ether (50-499 ppb), Dimethyl ether (50-499 ppb), Ethanol (100-499 ppb), Ethyl benzene (50-499 ppb), Methanol (100-499 ppb), Methyl isobutyl ketone (50-499 ppb), Toluene (50-499 ppb), m-Xylene (50-499 ppb), o-Xylene (50-499 ppb), p-Xylene (50-499 ppb), Nitrogen (Balance)

Product Code

- M-AD00638/E-1

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

Relevant identified use(s)

- Please provide product use

1.3 Details of the supplier of the safety data sheet

Manufacturer

- Air Liquide
2700 Post Oak Blvd.
Houston, TX 77056
United States
www.us.airliquide.com
sds@airliquide.com

Telephone (Technical) • 713-896-2896

Telephone (Technical) • 800-819-1704

1.4 Emergency telephone number

Manufacturer

- 800-424-9300 - CHEMTREC

Manufacturer

- +1 703-527-3887 - Outside United States

Section 2: Hazards Identification

EU/EEC

According to Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

According to EU Directive 67/548/EEC (DSD) or 1999/45/EC (DPD)

2.1 Classification of the substance or mixture

CLP

- Compressed Gas - H280

DSD/DPD

- Not classified - Classification criteria not met

2.2 Label Elements

CLP

WARNING



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

Precautionary statements

Storage/Disposal ● P403 - Store in a well-ventilated place.

DSD/DPD

Risk phrases ● No label element(s) required

2.3 Other Hazards

CLP

- This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. According to Regulation (EC) No. 1272/2008 (CLP) this material is considered hazardous.

DSD/DPD

- This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. This preparation is not considered dangerous according to European Directive 1999/45/EC.

United States (US)

According to OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Compressed Gas - H280
Simple Asphyxiant

2.2 Label elements

OSHA HCS 2012

WARNING



Hazard statements ● Contains gas under pressure; may explode if heated - H280
May displace oxygen and cause rapid suffocation.

Precautionary statements

Storage/Disposal ● Store in a well-ventilated place. - P403

2.3 Other hazards

OSHA HCS 2012

- Under United States Regulations (29 CFR 1910.1200 - Hazard Communication Standard), this product is considered hazardous.

Canada

According to WHMIS

2.1 Classification of the substance or mixture

WHMIS

- Compressed Gas - A

2.2 Label elements

WHMIS



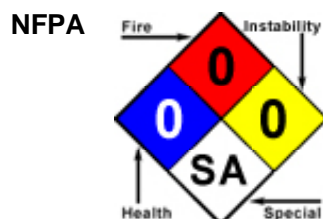
- Compressed Gas - A

2.3 Other hazards

WHMIS

- This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces.
In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

2.4 Other information



Section 3 - Composition/Information on Ingredients

3.1 Substances

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

3.2 Mixtures

| Composition | | | | |
|---------------|--|--------------------|---|--|
| Chemical Name | Identifiers | % | LD50/LC50 | Classifications According to Regulation/Directive |
| Toluene | CAS: 108-88-3 EC Number: 203-625-9 EU Index: 601-021-00-3 | 50ppb TO 499ppb | Ingestion/Oral-Rat LD50 • 636 mg/kg Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s) Skin-Rabbit LD50 • 14100 µL/kg | EU DSD/DPD: Annex I: F; R11; Xi; R38; Xn; R48/20-65; Repr. 3; R63; R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Repr. 2, H361d; Asp. Tox. 1, H304; STOT RE 2, H373; Skin Irrit. 2, H315; STOT SE 3: Narc., H336 OSHA HCS 2012: Flam. Liq. 2; Repr. 2; Acute Tox. 4 (Oral); STOT SE 3: Narc.; Asp. Tox. 1 |
| p-Xylene | CAS: 106-42-3 EC Number: 203-396-5 EU Index: 601-022-00-9 | 50ppb TO 499ppb | Inhalation-Rat LC50 • 4550 ppm 4 Hour(s) Ingestion/Oral-Rat LD50 • 3910 mg/kg | EU DSD/DPD: Annex I: R10; Xn; R20/21; Xi; R38 EU CLP: Annex VI: Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315 OSHA HCS 2012: Flam. Liq. 3; STOT SE 3: Narc. & Resp. Irrit.; Eye Irrit. 2A; Skin Irrit. 2; Repr. 2; Acute Tox. 4 (Inhalation) |
| o-Xylene | CAS: 95-47-6 EC Number: 202-422-2 EU Index: 601-022-00-9 | 50ppb TO 499ppb | Ingestion/Oral-Rat LD50 • 3567 mg/kg | EU DSD/DPD: Annex I: R10; Xn; R20/21; Xi; R38 EU CLP: Annex VI: Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315 OSHA HCS 2012: Flam. Liq. 3; Eye Irrit. 2A |
| m-Xylene | CAS: 108-38-3 EC Number: 203-576-3 EU Index: 601-022-00-9 | 50ppb TO 499ppb | Skin-Rabbit LD50 • 14100 µL/kg Ingestion/Oral-Rat LD50 • 4988 mg/kg | EU DSD/DPD: Annex I: R10; Xn; R20/21; Xi; R38 EU CLP: Annex VI: Flam. Liq. 3, H226; Acute Tox. 4, H332; Acute Tox. 4, H312; Skin Irrit. 2, H315 OSHA HCS 2012: Flam. Liq. 3; Acute Tox. 5 (Oral); Eye Irrit. 2; Skin Irrit. 2 |

| | | | | |
|------------------------|--|------------------|---|--|
| Methyl Isobutyl Ketone | CAS: 108-10-1 EC Number: 203-550-1 EU Index: 606-004-00-4 | 50ppb TO 499ppb | Ingestion/Oral-Rat LD50 • 2080 mg/kg Inhalation-Rat LC50 • 100 g/m ³ | EU DSD/DPD: Annex I: F; R11; Xn; R20; Xi; R36/37; R66 EU CLP: Annex VI: Flam. Liq. 2, H225; Acute Tox. 4, H332; Eye Irrit. 2, H319; STOT SE 3: Resp. Irrit., H335; EUH066 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3: Resp. Irrit. & Narc.; Carc. 2; Repr. 2; Asp. Tox. 1 |
| Methanol | CAS: 67-56-1 EC Number: 200-659-6 EU Index: 603-001-00-X | 100ppb TO 499ppb | Inhalation-Rat LC50 • 64000 ppm 4 Hour(s) Skin-Rabbit LD50 • 15800 mg/kg Ingestion/Oral-Rat LD50 • 5600 mg/kg | EU DSD/DPD: Annex I: F; R11; T; R23/24/25-39/23/24/25 EU CLP: Annex VI: Flam. Liq. 2, H225; Acute Tox. 3, H331; Acute Tox. 3, H311; Acute Tox. 3, 301; STOT SE 1, H370 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2A; Skin Irrit. 2; STOT SE 1 (Eyes); STOT SE 3: Narc.; Repr. 2 |
| Ethyl Benzene | CAS: 100-41-4 EC Number: 202-849-4 EU Index: 601-023-00-4 | 50ppb TO 499ppb | Skin-Rabbit LD50 • 17800 µL/kg Ingestion/Oral-Rat LD50 • 3500 mg/kg Inhalation-Rat LC50 • 55000 mg/m ³ 2 Hour(s) | EU DSD/DPD: Annex I: F; R11; Xn; R20 EU CLP: Annex VI: Flam. Liq. 2, H225; Acute Tox. 4, H332 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2A; Repr. 2; Carc. 2; STOT SE 3: Resp. Irrit.; STOT SE 3: Narc. |
| Ethanol | CAS: 64-17-5 EC Number: 200-578-6 EU Index: 603-002-00-5 | 100ppb TO 499ppb | Ingestion/Oral-Rat LD50 • 7060 mg/kg Inhalation-Rat LC50 • 20000 ppm 10 Hour(s) | EU DSD/DPD: Annex I: F; R11 EU CLP: Annex VI: Flam. Liq. 2, H225 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2; Muta. 1B (Oral); Repr. 1A (Oral) |
| Dimethyl Ether | CAS: 115-10-6 EC Number: 204-065-8 EU Index: 603-019-00-8 | 50ppb TO 499ppb | Inhalation-Rat LC50 • 309 g/m ³ 4 Hour(s) | EU DSD/DPD: Annex I: F+; R12 EU CLP: Annex VI: Flam. Gas 1, H220; Press. Gas - Liq., H280 OSHA HCS 2012: Press. Gas - Liq.; Flam. Gas 1; STOT SE 3: Narc.; STOT SE 3: Resp. Irrit.; HNOC - Health - Frostbite |
| Diethyl Ether | CAS: 60-29-7 EC Number: 200-467-2 EU Index: 603-022-00-4 | 50ppb TO 499ppb | Ingestion/Oral-Rat LD50 • 1215 mg/kg Skin-Rabbit LD50 • >20 mL/kg | EU DSD/DPD: Annex I: F+; R12 R19 Xn; R22 R66 R67 EU CLP: Annex VI: Flam. Liq. 1, H224; Acute Tox. 4, H302; STOT SE 3: Narc., H336; EUH019; EUH066 OSHA HCS 2012: Flam. Liq. 1; Skin Irrit. 2; Eye Irrit. 2A; STOT SE 3: Narc.; Acute Tox. 4 (Oral) |
| Cyclohexane | CAS: 110-82-7 EC Number: 203-806-2 EU Index: 601-017-00-1 | 50ppb TO 499ppb | Ingestion/Oral-Rat LD50 • 12705 mg/kg | EU DSD/DPD: Annex I: F; R11 Xi; R38 N; R50-53 Xn; R65 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Asp. Tox. 1, H304; Skin Irrit. 2, H315; STOT SE 3: Narc., H336; Aquatic Acute 1, H400; Aquatic Chronic 1, H410 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2A; STOT SE 3: Resp. Irrit. & Narc.; Skin Irrit. 2; Asp. Tox. 1 |
| Benzene | CAS: 71-43-2 EC Number: 200-753-7 EU Index: 601-020-00-8 | 50ppb TO 499ppb | Ingestion/Oral-Rat LD50 • 930 mg/kg Inhalation-Rat LC50 • 10000 ppm 7 Hour(s) Skin-Rabbit LD50 • >9400 µL/kg | EU DSD/DPD: Annex I: F; R11; Carc. 1; R45; Muta. 2; R46; T; R48/23/24/25; Xn; R65; Xi; R36/38 EU CLP: Annex VI: Flam. Liq. 2, H225; Carc. 1A, H350; Muta. 1B, H340; STOT RE 1, H372; Asp. Tox. 1, H304; Eye Irrit. 2, H319; Skin Irrit. 2, H315 OSHA HCS 2012: Flam. Liq. 2; Eye Irrit. 2A; Skin Irrit. 2; Muta. 1B; Carc. 1A; Asp. Tox. 1; STOT RE 1 (Blood and Bone Marrow); Repr. 2; STOT SE 3: Narc.; Acute Tox. 4 (Oral) |
| Acetone | CAS: 67-64-1 EC Number: 200-662-2 EU Index: 606-001-00-8 | 50ppb TO 499ppb | Inhalation-Rat LC50 • 50100 mg/m ³ 8 Hour (s) Ingestion/Oral-Rat LD50 • 5800 mg/kg | EU DSD/DPD: Annex I: F; R11 Xi; R36 R66 R67 EU CLP: Annex VI: Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3: Narc., H336 OSHA HCS 2012: Eye Irrit. 2A; STOT SE 3: Narc.; Flam. Liq. 2 |
| Nitrogen | CAS: 7727-37-9 EINECS: 231-783-9 | Balance | NDA | EU DSD/DPD: Not Classified EU CLP: Self Classified: Press. Gas - Comp., H280 OSHA HCS 2012: Press. Gas - Comp.; Simp. Asphyx. |

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

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation

- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin

- Although exposure is unlikely, in case of contact immediately flush skin with running water. If skin irritation develops get medical advice/attention.

Eye

- First aid is not expected to be necessary if material is used under ordinary conditions and as recommended. If irritation develops and persists, get medical attention.

Ingestion

- Ingestion is not considered a potential route of exposure.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician

- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. A potential health hazard associated with this gas is anoxia.

4.4 Other information

- Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves. RESCUERS SHOULD NOT ATTEMPT TO RETRIEVE VICTIMS OF EXPOSURE TO GASES WITHOUT ADEQUATE PERSONAL PROTECTIVE EQUIPMENT. At a minimum, Self-Contained Breathing Apparatus must be worn. Victim(s) who experience any adverse effect after over-exposure to this gas mixture must be taken for medical attention. Rescuers should be taken for medical attention if necessary. Take a copy of the label and the MSDS to physician or other health professional with victim(s).

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media • Use extinguishing agent suitable for type of surrounding fire.

Unsuitable Extinguishing Media • No data available

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards • Containers may explode when heated.
Ruptured cylinders may rocket.

Hazardous Combustion Products • No data available

5.3 Advice for firefighters

- Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
Always wear thermal protective clothing when handling refrigerated/cryogenic liquids. Wear positive pressure self-contained breathing apparatus (SCBA).
Move containers from fire area if you can do it without risk.
FIRE: If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.
FIRE INVOLVING TANKS: Fight fire from maximum distance or use unmanned hose

holders or monitor nozzles.

FIRE INVOLVING TANKS: Cool containers with flooding quantities of water until well after fire is out.

FIRE INVOLVING TANKS: Do not direct water at source of leak or safety devices; icing may occur.

FIRE INVOLVING TANKS: Withdraw immediately in case of rising sound from venting safety devices or discoloration of tank.

FIRE INVOLVING TANKS: ALWAYS stay away from tanks engulfed in fire.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Do not touch or walk through spilled material. Ventilate the area before entry.

Emergency Procedures

- Stop leak if you can do it without risk. Keep unauthorized personnel away. Keep out of low areas. Stay upwind. Do not direct water at spill or source of leak. LARGE SPILL: Consider initial downwind evacuation for at least 500 meters (1/3 mile)

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures

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

6.4 Reference to other sections

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

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling

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

7.2 Conditions for safe storage, including any incompatibilities

Storage

- Store in a cool, dry, well-ventilated place. Protect cylinders against physical damage. Cylinders should be firmly secured to prevent falling or being knocked-over.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

| Exposure Limits/Guidelines | | | | | | |
|-----------------------------|--------|-----------------|---|---------------------------------|--|--------------------------|
| | Result | ACGIH | Canada Ontario | Canada Quebec | China | China Highly Toxic Goods |
| Toluene (108-88-3) | STELs | Not established | Not established | Not established | 100 mg/m3 STEL | Not established |
| | TWAs | 20 ppm TWA | 20 ppm TWA | 50 ppm TWAEV; 188 mg/m3 TWAEV | 50 mg/m3 TWA | Not established |
| Cyclohexane (110-82-7) | STELs | Not established | Not established | Not established | 375 mg/m3 STEL | Not established |
| | TWAs | 100 ppm TWA | 100 ppm TWA | 300 ppm TWAEV; 1030 mg/m3 TWAEV | 250 mg/m3 TWA | Not established |
| o-Xylene (95-47-6) | STELs | 150 ppm STEL | 150 ppm STEL | 150 ppm STEV; 651 mg/m3 STEV | 100 mg/m3 STEL (listed under Xylene (all isomers)) | Not established |
| | TWAs | 100 ppm TWA | 100 ppm TWA | 100 ppm TWAEV; 434 mg/m3 TWAEV | 50 mg/m3 TWA (listed under Xylene (all isomers)) | Not established |
| p-Xylene (106-42-3) | STELs | 150 ppm STEL | 150 ppm STEL | 150 ppm STEV; 651 mg/m3 STEV | 100 mg/m3 STEL (listed under Xylene (all isomers)) | Not established |
| | TWAs | 100 ppm TWA | 100 ppm TWA | 100 ppm TWAEV; 434 mg/m3 TWAEV | 50 mg/m3 TWA (listed under Xylene (all isomers)) | Not established |
| m-Xylene (108-38-3) | STELs | 150 ppm STEL | 150 ppm STEL | 150 ppm STEV; 651 mg/m3 STEV | 100 mg/m3 STEL (listed under Xylene (all isomers)) | Not established |
| | TWAs | 100 ppm TWA | 100 ppm TWA | 100 ppm TWAEV; 434 mg/m3 TWAEV | 50 mg/m3 TWA (listed under Xylene (all isomers)) | Not established |
| Diethyl Ether (60-29-7) | STELs | 500 ppm STEL | 500 ppm STEL | 500 ppm STEV; 1520 mg/m3 STEV | 500 mg/m3 STEL | Not established |
| | TWAs | 400 ppm TWA | 400 ppm TWA | 400 ppm TWAEV; 1210 mg/m3 TWAEV | 300 mg/m3 TWA | Not established |
| Acetone (67-64-1) | STELs | 750 ppm STEL | 750 ppm STEL | 1000 ppm STEV; 2380 mg/m3 STEV | 450 mg/m3 STEL | Not established |
| | TWAs | 500 ppm TWA | 500 ppm TWA | 500 ppm TWAEV; 1190 mg/m3 TWAEV | 300 mg/m3 TWA | Not established |
| Ethyl Benzene (100-41-4) | STELs | Not established | Not established | 125 ppm STEV; 543 mg/m3 STEV | 150 mg/m3 STEL | Not established |
| | TWAs | 20 ppm TWA | 20 ppm TWA | 100 ppm TWAEV; 434 mg/m3 TWAEV | 100 mg/m3 TWA | Not established |
| Benzene (71-43-2) | STELs | 2.5 ppm STEL | 2.5 ppm STEL (applies to workplaces to which the designated substance regulation does not apply); 2.5 ppm STEL (designated substances regulation) | 5 ppm STEV; 15.5 mg/m3 STEV | 10 mg/m3 STEL | 10 mg/m3 STEL |
| | | | 0.5 ppm TWA (applies to workplaces to which the designated | | | |

| | | | | | | |
|-----------------------------------|-------|-----------------|---|----------------------------------|-----------------|-----------------|
| | TWAs | 0.5 ppm TWA | substances regulation does not apply); 0.5 ppm TWA (designated substances regulation) | 1 ppm TWAEV; 3 mg/m3 TWAEV | 6 mg/m3 TWA | 6 mg/m3 TWA |
| Methyl Isobutyl Ketone (108-10-1) | STELs | 75 ppm STEL | 75 ppm STEL | 75 ppm STEV; 307 mg/m3 STEV | Not established | Not established |
| | TWAs | 20 ppm TWA | 20 ppm TWA | 50 ppm TWAEV; 205 mg/m3 TWAEV | Not established | Not established |
| Methanol (67-56-1) | STELs | 250 ppm STEL | 250 ppm STEL | 250 ppm STEV; 328 mg/m3 STEV | 50 mg/m3 STEL | Not established |
| | TWAs | 200 ppm TWA | 200 ppm TWA | 200 ppm TWAEV; 262 mg/m3 TWAEV | 25 mg/m3 TWA | Not established |
| Ethanol (64-17-5) | STELs | 1000 ppm STEL | 1000 ppm STEL | Not established | Not established | Not established |
| | TWAs | Not established | Not established | 1000 ppm TWAEV; 1880 mg/m3 TWAEV | Not established | Not established |

Exposure Limits/Guidelines (Con't.)

| | Result | Europe | France | Germany DFG | Germany TRGS | Ireland |
|------------------------|----------|------------------------------|--|-----------------------------------|---|------------------------------|
| Toluene (108-88-3) | STELs | 100 ppm STEL; 384 mg/m3 STEL | 100 ppm STEL [VLCT] (restrictive limit); 384 mg/m3 STEL [VLCT] (restrictive limit) | Not established | Not established | 100 ppm STEL; 384 mg/m3 STEL |
| | TWAs | 50 ppm TWA; 192 mg/m3 TWA | 20 ppm TWA [VME] (restrictive limit); 76.8 mg/m3 TWA [VME] (restrictive limit) | Not established | 50 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4); 190 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4) | 50 ppm TWA; 192 mg/m3 TWA |
| | Ceilings | Not established | Not established | 200 ppm Peak; 760 mg/m3 Peak | Not established | Not established |
| | MAKs | Not established | Not established | 50 ppm TWA MAK; 190 mg/m3 TWA MAK | Not established | Not established |
| Cyclohexane (110-82-7) | TWAs | 200 ppm TWA; 700 mg/m3 TWA | 200 ppm TWA [VME] (restrictive limit); 700 mg/m3 TWA [VME] (restrictive limit) | Not established | 200 ppm TWA AGW (exposure factor 4); 700 mg/m3 TWA AGW (exposure factor 4) | 200 ppm TWA; 700 mg/m3 TWA |
| | STELs | Not established | 375 ppm STEL [VLCT]; 1300 mg/m3 STEL [VLCT] | Not established | Not established | Not established |
| | Ceilings | Not established | Not established | 800 ppm Peak; 2800 mg/m3 Peak | Not established | Not established |

| | | | | | | |
|----------------------------|----------|-----------------|--|---------------------------------------|---|------------------------------|
| | MAKs | Not established | Not established | 200 ppm TWA MAK; 700 mg/m3 TWA MAK | Not established | Not established |
| o-Xylene (95-47-6) | STELs | Not established | 100 ppm STEL [VLCT] (restrictive limit); 442 mg/m3 STEL [VLCT] (restrictive limit) | Not established | Not established | 100 ppm STEL; 442 mg/m3 STEL |
| | TWAs | Not established | 50 ppm TWA [VME] (restrictive limit); 221 mg/m3 TWA [VME] (restrictive limit) | Not established | Not established | 50 ppm TWA; 221 mg/m3 TWA |
| p-Xylene (106-42-3) | STELs | Not established | 100 ppm STEL [VLCT] (restrictive limit); 442 mg/m3 STEL [VLCT] (restrictive limit) | Not established | Not established | 100 ppm STEL; 442 mg/m3 STEL |
| | TWAs | Not established | 50 ppm TWA [VME] (restrictive limit); 221 mg/m3 TWA [VME] (restrictive limit) | Not established | Not established | 50 ppm TWA; 221 mg/m3 TWA |
| m-Xylene (108-38-3) | STELs | Not established | 100 ppm STEL [VLCT] (restrictive limit); 442 mg/m3 STEL [VLCT] (restrictive limit) | Not established | Not established | 100 ppm STEL; 442 mg/m3 STEL |
| | TWAs | Not established | 50 ppm TWA [VME] (restrictive limit); 221 mg/m3 TWA [VME] (restrictive limit) | Not established | Not established | 50 ppm TWA; 221 mg/m3 TWA |
| Diethyl Ether (60-29-7) | STELs | Not established | 200 ppm STEL [VLCT] (restrictive limit); 616 mg/m3 STEL [VLCT] (restrictive limit) | Not established | Not established | 200 ppm STEL; 616 mg/m3 STEL |
| | TWAs | Not established | 100 ppm TWA [VME] (restrictive limit); 308 mg/m3 TWA [VME] (restrictive limit) | Not established | 400 ppm TWA AGW (exposure factor 1); 1200 mg/m3 TWA AGW (exposure factor 1) | 100 ppm TWA; 308 mg/m3 TWA |
| | Ceilings | Not established | Not established | 400 ppm Peak; 1200 mg/m3 Peak | Not established | Not established |
| | MAKs | Not established | Not established | 400 ppm TWA MAK; 1200 mg/m3 TWA MAK | Not established | Not established |
| Acetone (67-64-1) | STELs | Not established | 1000 ppm STEL [VLCT] (restrictive limit); 2420 mg/m3 STEL [VLCT] (restrictive limit) | Not established | Not established | Not established |
| | TWAs | Not established | 500 ppm TWA [VME] (restrictive limit); 1210 mg/m3 TWA [VME] (restrictive limit) | Not established | 500 ppm TWA AGW (exposure factor 2); 1200 mg/m3 TWA AGW (exposure factor 2) | 500 ppm TWA; 1210 mg/m3 TWA |

| | | | | | | |
|-----------------------------------|----------|-----------------|--|--------------------------------------|--|------------------------------|
| | Ceilings | Not established | Not established | 1000 ppm Peak; 2400 mg/m3 Peak | Not established | Not established |
| | MAKs | Not established | Not established | 500 ppm TWA MAK; 1200 mg/m3 TWA MAK | Not established | Not established |
| Ethyl Benzene (100-41-4) | STELs | Not established | 100 ppm STEL [VLCT] (restrictive limit); 442 mg/m3 STEL [VLCT] (restrictive limit) | Not established | Not established | 200 ppm STEL; 884 mg/m3 STEL |
| | TWAs | Not established | 20 ppm TWA [VME] (restrictive limit); 88.4 mg/m3 TWA [VME] (restrictive limit) | Not established | 20 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 88 mg/m3 TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2) | 100 ppm TWA; 442 mg/m3 TWA |
| | Ceilings | Not established | Not established | 40 ppm Peak; 176 mg/m3 Peak | Not established | Not established |
| | MAKs | Not established | Not established | 20 ppm TWA MAK; 88 mg/m3 TWA MAK | Not established | Not established |
| Benzene (71-43-2) | TWAs | Not established | 1 ppm TWA [VME] (restrictive limit); 3.25 mg/m3 TWA [VME] (restrictive limit) | Not established | Not established | 1 ppm TWA; 3 mg/m3 TWA |
| Methyl Isobutyl Ketone (108-10-1) | STELs | Not established | 50 ppm STEL [VLCT]; 208 mg/m3 STEL [VLCT] | Not established | Not established | 50 ppm STEL; 208 mg/m3 STEL |
| | TWAs | Not established | 20 ppm TWA [VME] (restrictive limit); 83 mg/m3 TWA [VME] (restrictive limit) | Not established | 20 ppm TWA AGW (exposure factor 2); 83 mg/m3 TWA AGW (exposure factor 2) | 20 ppm TWA; 83 mg/m3 TWA |
| | Ceilings | Not established | Not established | 40 ppm Peak; 166 mg/m3 Peak | Not established | Not established |
| | MAKs | Not established | Not established | 20 ppm TWA MAK; 83 mg/m3 TWA MAK | Not established | Not established |
| Dimethyl Ether (115-10-6) | TWAs | Not established | 1000 ppm TWA [VME] (indicative limit); 1920 mg/m3 TWA [VME] (indicative limit) | Not established | 1000 ppm TWA AGW (exposure factor 8); 1900 mg/m3 TWA AGW (exposure factor 8) | 1000 ppm TWA; 1920 mg/m3 TWA |
| | Ceilings | Not established | Not established | 8000 ppm Peak; 15200 mg/m3 Peak | Not established | Not established |
| | MAKs | Not established | Not established | 1000 ppm TWA MAK; 1900 mg/m3 TWA MAK | Not established | Not established |

| | | | | | | |
|--|---------------|--|--|--|--|--|
| Methanol (67-56-1) | TWAs | 200 ppm TWA; 260 mg/m ³ TWA | 200 ppm TWA [VME]; 260 mg/m ³ TWA [VME] | Not established | 200 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4); 270 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 4) | 200 ppm TWA; 260 mg/m ³ TWA |
| | STELs | Not established | 1000 ppm STEL [VLCT]; 1300 mg/m ³ STEL [VLCT] | Not established | Not established | Not established |
| | Ceilings | Not established | Not established | 800 ppm Peak; 1080 mg/m ³ Peak | Not established | Not established |
| | MAKs | Not established | Not established | 200 ppm TWA MAK; 270 mg/m ³ TWA MAK | Not established | Not established |
| Ethanol (64-17-5) | STELs | Not established | 5000 ppm STEL [VLCT]; 9500 mg/m ³ STEL [VLCT] | Not established | Not established | 1000 ppm STEL |
| | TWAs | Not established | 1000 ppm TWA [VME]; 1900 mg/m ³ TWA [VME] | Not established | 500 ppm TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2); 960 mg/m ³ TWA AGW (The risk of damage to the embryo or fetus can be excluded when AGW and BGW values are observed, exposure factor 2) | Not established |
| | Ceilings | Not established | Not established | 1000 ppm Peak; 1920 mg/m ³ Peak | Not established | Not established |
| | MAKs | Not established | Not established | 500 ppm TWA MAK; 960 mg/m ³ TWA MAK | Not established | Not established |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | Israel | Italy | NIOSH | OSHA | OSHA Vacated |
| Toluene (108-88-3) | TWAs | 50 ppm TWA | 50 ppm TWA; 192 mg/m ³ TWA | 100 ppm TWA; 375 mg/m ³ TWA | 200 ppm TWA | 100 ppm TWA; 375 mg/m ³ TWA |
| | Ceilings | Not established | Not established | Not established | 300 ppm Ceiling | Not established |
| | STELs | Not established | Not established | 150 ppm STEL; 560 mg/m ³ STEL | Not established | 150 ppm STEL; 560 mg/m ³ STEL |
| Cyclohexane (110-82-7) | TWAs | 100 ppm TWA | 100 ppm TWA; 350 mg/m ³ TWA | 300 ppm TWA; 1050 mg/m ³ TWA | 300 ppm TWA; 1050 mg/m ³ TWA | 300 ppm TWA; 1050 mg/m ³ TWA |

| | | | | | | |
|--------------------------------------|----------|-----------------|------------------------------|------------------------------|---|---|
| o-Xylene (95-47-6) | STELs | 150 ppm STEL | 100 ppm STEL; 442 mg/m3 STEL | 150 ppm STEL; 655 mg/m3 STEL | Not established | Not established |
| | TWAs | 100 ppm TWA | 50 ppm TWA; 221 mg/m3 TWA | 100 ppm TWA; 435 mg/m3 TWA | Not established | Not established |
| p-Xylene (106-42-3) | STELs | 150 ppm STEL | 100 ppm STEL; 442 mg/m3 STEL | 150 ppm STEL; 655 mg/m3 STEL | Not established | Not established |
| | TWAs | 100 ppm TWA | 50 ppm TWA; 221 mg/m3 TWA | 100 ppm TWA; 435 mg/m3 TWA | Not established | Not established |
| m-Xylene (108-38-3) | STELs | 150 ppm STEL | 100 ppm STEL; 442 mg/m3 STEL | 150 ppm STEL; 655 mg/m3 STEL | Not established | Not established |
| | TWAs | 100 ppm TWA | 50 ppm TWA; 221 mg/m3 TWA | 100 ppm TWA; 435 mg/m3 TWA | Not established | Not established |
| Diethyl Ether (60-29-7) | STELs | 500 ppm STEL | 200 ppm STEL; 616 mg/m3 STEL | Not established | Not established | 500 ppm STEL; 1500 mg/m3 STEL |
| | TWAs | 400 ppm TWA | 100 ppm TWA; 308 mg/m3 TWA | Not established | 400 ppm TWA; 1200 mg/m3 TWA | 400 ppm TWA; 1200 mg/m3 TWA |
| Acetone (67-64-1) | TWAs | 500 ppm TWA | 500 ppm TWA; 1210 mg/m3 TWA | 250 ppm TWA; 590 mg/m3 TWA | 1000 ppm TWA; 2400 mg/m3 TWA | 750 ppm TWA; 1800 mg/m3 TWA |
| | STELs | 750 ppm STEL | Not established | Not established | Not established | 2400 mg/m3 STEL (The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors); 1000 ppm STEL |
| Ethyl Benzene (100-41-4) | STELs | Not established | 200 ppm STEL; 884 mg/m3 STEL | 125 ppm STEL; 545 mg/m3 STEL | Not established | 125 ppm STEL; 545 mg/m3 STEL |
| | TWAs | 20 ppm TWA | 100 ppm TWA; 442 mg/m3 TWA | 100 ppm TWA; 435 mg/m3 TWA | 100 ppm TWA; 435 mg/m3 TWA | 100 ppm TWA; 435 mg/m3 TWA |
| Benzene (71-43-2) | TWAs | 0.5 ppm TWA | 1 ppm TWA; 3.25 mg/m3 TWA | 0.1 ppm TWA | 10 ppm TWA (applies to industry segments exempt from the benzene standard at 29 CFR 1910.1028); 1 ppm TWA | 10 ppm TWA (unless specified in 1910.1028) |
| | STELs | 2.5 ppm STEL | Not established | 1 ppm STEL | 5 ppm STEL (see 29 CFR 1910.1028) | 50 ppm STEL (unless specified in 1910.1028, 10 min) |
| | Ceilings | Not established | Not established | Not established | 25 ppm Ceiling | 25 ppm Ceiling (unless specified in 1910.1028) |
| Methyl Isobutyl Ketone (108-10-1) | STELs | 75 ppm STEL | 50 ppm STEL; 208 mg/m3 STEL | 75 ppm STEL; 300 mg/m3 STEL | Not established | 75 ppm STEL; 300 mg/m3 STEL |
| | TWAs | 20 ppm TWA | 20 ppm TWA; 83 mg/m3 TWA | 50 ppm TWA; 205 mg/m3 TWA | 100 ppm TWA; 410 mg/m3 TWA | 50 ppm TWA; 205 mg/m3 TWA |
| Dimethyl Ether (115-10-6) | TWAs | Not established | 1000 ppm TWA; 1920 mg/m3 TWA | Not established | Not established | Not established |
| Methanol (67-56-1) | TWAs | 200 ppm TWA | 200 ppm TWA; 260 mg/m3 TWA | 200 ppm TWA; 260 mg/m3 TWA | 200 ppm TWA; 260 mg/m3 TWA | 200 ppm TWA; 260 mg/m3 TWA |
| | STELs | 250 ppm STEL | Not established | 250 ppm STEL; 325 mg/m3 STEL | Not established | 250 ppm STEL; 325 mg/m3 STEL |

| Ethanol (64-17-5) | STELs | 1000 ppm STEL | Not established | Not established | Not established | Not established |
|--|-------------------------------|-----------------------|--|------------------------------|------------------------------|------------------------------|
| | TWAs | Not established | Not established | 1000 ppm TWA; 1900 mg/m3 TWA | 1000 ppm TWA; 1900 mg/m3 TWA | 1000 ppm TWA; 1900 mg/m3 TWA |
| Exposure Limits/Guidelines (Con't.) | | | | | | |
| | Result | Portugal | Spain | | Sweden | |
| Toluene (108-88-3) | TWAs | 50 ppm TWA [VLE-MP] | 50 ppm TWA [VLA-ED] (indicative limit value; manufacturing, commercialization, and use restrictions under REACH); 192 mg/m3 TWA [VLA-ED] (indicative limit value; manufacturing, commercialization, and use restrictions under REACH) | | 50 ppm LLV; 192 mg/m3 LLV | |
| | STELs | Not established | 100 ppm STEL [VLA-EC]; 384 mg/m3 STEL [VLA-EC] | | 100 ppm STV; 384 mg/m3 STV | |
| | Biological Limit Values (BLV) | Not established | 0.5 mg/L urine end of shift o-Cresol (2,F); 1.6 g/g Creatinine urine end of shift Hippuric acid (2,F,I); 0.05 mg/L blood start of last shift of workweek Toluene (5) | | Not established | |
| Cyclohexane (110-82-7) | TWAs | 100 ppm TWA [VLE-MP] | 200 ppm TWA [VLA-ED] (indicative limit value; manufacturing, commercialization, and use restrictions under REACH); 700 mg/m3 TWA [VLA-ED] (indicative limit value; manufacturing, commercialization, and use restrictions under REACH) | | 300 ppm LLV; 1000 mg/m3 LLV | |
| | STELs | Not established | Not established | | 370 ppm STV; 1300 mg/m3 STV | |
| o-Xylene (95-47-6) | STELs | 150 ppm STEL [VLE-CD] | 100 ppm STEL [VLA-EC]; 442 mg/m3 STEL [VLA-EC] | | 100 ppm STV; 442 mg/m3 STV | |
| | TWAs | 100 ppm TWA [VLE-MP] | 50 ppm TWA [VLA-ED] (indicative limit value); 221 mg/m3 TWA [VLA-ED] (indicative limit value) | | 50 ppm LLV; 221 mg/m3 LLV | |
| | STELs | 150 ppm STEL [VLE-CD] | 100 ppm STEL [VLA-EC]; 442 mg/m3 STEL [VLA-EC] | | 100 ppm STV; 442 mg/m3 STV | |

| | | | | |
|-----------------------------|-------------------------------|-----------------------|--|---|
| p-Xylene (106-42-3) | TWAs | 100 ppm TWA [VLE-MP] | 50 ppm TWA [VLA-ED] (indicative limit value); 221 mg/m ³ TWA [VLA-ED] (indicative limit value) | 50 ppm LLV; 221 mg/m ³ LLV |
| m-Xylene (108-38-3) | STELs | 150 ppm STEL [VLE-CD] | 100 ppm STEL [VLA-EC]; 442 mg/m ³ STEL [VLA-EC] | 100 ppm STV; 442 mg/m ³ STV |
| | TWAs | 100 ppm TWA [VLE-MP] | 50 ppm TWA [VLA-ED] (indicative limit value); 221 mg/m ³ TWA [VLA-ED] (indicative limit value) | 50 ppm LLV; 221 mg/m ³ LLV |
| Diethyl Ether (60-29-7) | STELs | 500 ppm STEL [VLE-CD] | 200 ppm STEL [VLA-EC]; 616 mg/m ³ STEL [VLA-EC] | 400 ppm STV; 1200 mg/m ³ STV |
| | TWAs | 400 ppm TWA [VLE-MP] | 100 ppm TWA [VLA-ED] (indicative limit value); 308 mg/m ³ TWA [VLA-ED] (indicative limit value) | 300 ppm LLV; 900 mg/m ³ LLV |
| Acetone (67-64-1) | STELs | 750 ppm STEL [VLE-CD] | Not established | 500 ppm STV; 1200 mg/m ³ STV |
| | TWAs | 500 ppm TWA [VLE-MP] | 500 ppm TWA [VLA-ED] (indicative limit value); 1210 mg/m ³ TWA [VLA-ED] (indicative limit value) | 250 ppm LLV; 600 mg/m ³ LLV |
| | Biological Limit Values (BLV) | Not established | 50 mg/L urine end of shift Acetone (2) | Not established |
| Ethyl Benzene (100-41-4) | STELs | 125 ppm STEL [VLE-CD] | 200 ppm STEL [VLA-EC]; 884 mg/m ³ STEL [VLA-EC] | 100 ppm STV; 450 mg/m ³ STV |
| | TWAs | 100 ppm TWA [VLE-MP] | 100 ppm TWA [VLA-ED] (indicative limit value); 441 mg/m ³ TWA [VLA-ED] (indicative limit value) | 50 ppm LLV; 200 mg/m ³ LLV |
| | Biological Limit Values (BLV) | Not established | 700 mg/g Creatinine urine end of workweek Mandelic acid plus Phenylglyoxylic acid (1,I,S) | Not established |
| | STELs | 2.5 ppm STEL [VLE-CD] | Not established | 3 ppm STV; 9 mg/m ³ STV |
| | | | 1 ppm TWA [VLA-ED] (manufacturing, commercialization, and use restrictions under REACH; worker protection to exposure to carcinogens and | |

| | | | | |
|--------------------------------------|-------------------------------|-----------------------|--|---|
| Benzene (71-43-2) | TWAs | 0.5 ppm TWA [VLE-MP] | mutagens in the workplace); 3.25 mg/m ³ TWA [VLA-ED] (manufacturing, commercialization, and use restrictions under REACH; worker protection to carcinogens in the workplace) | 0.5 ppm LLV; 1.5 mg/m ³ LLV |
| | Biological Limit Values (BLV) | Not established | 0.045 mg/g urine end of exposure or end of shift S-Phenylmercapturic acid (2); 2 mg/L urine end of exposure or end of shift trans,trans-Muconic acid (2); 5 µg/L blood end of exposure or end of shift Total benzene (2) | Not established |
| Methyl Isobutyl Ketone (108-10-1) | STELs | 75 ppm STEL [VLE-CD] | 50 ppm STEL [VLA-EC]; 208 mg/m ³ STEL [VLA-EC] | 50 ppm STV; 200 mg/m ³ STV |
| | TWAs | 50 ppm TWA [VLE-MP] | 20 ppm TWA [VLA-ED] (indicative limit value); 83 mg/m ³ TWA [VLA-ED] (indicative limit value) | 25 ppm LLV; 100 mg/m ³ LLV |
| | Biological Limit Values (BLV) | Not established | 1 mg/L urine end of shift Methyl isobutyl ketone (2) | Not established |
| Dimethyl Ether (115-10-6) | TWAs | Not established | 1000 ppm TWA [VLA-ED] (indicative limit value); 1920 mg/m ³ TWA [VLA-ED] (indicative limit value) | 500 ppm LLV; 950 mg/m ³ LLV |
| | STELs | Not established | Not established | 800 ppm STV; 1500 mg/m ³ STV |
| Methanol (67-56-1) | STELs | 250 ppm STEL [VLE-CD] | Not established | 250 ppm STV; 350 mg/m ³ STV |
| | TWAs | 200 ppm TWA [VLE-MP] | 200 ppm TWA [VLA-ED] (indicative limit value); 266 mg/m ³ TWA [VLA-ED] (indicative limit value) | 200 ppm LLV; 250 mg/m ³ LLV |
| | Biological Limit Values (BLV) | Not established | 15 mg/L urine end of shift Methanol (2) | Not established |
| | | | 1000 ppm TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary or | |

| | | | | |
|----------------------|-------|-----------------------|--|------------------------------|
| Ethanol (64-17-5) | TWAs | 1000 ppm TWA [VLE-MP] | biocide compound); 1910 mg/m3 TWA [VLA-ED] (it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary or biocide compound) | 500 ppm LLV; 1000 mg/m3 LLV |
| | STELs | Not established | 1000 ppm STEL [VLA-EC]; 1910 mg/m3 STEL [VLA-EC] | 1000 ppm STV; 1900 mg/m3 STV |

Exposure Control Notations

Portugal

- Nitrogen (7727-37-9): **Simple Asphyxiants:** (Simple Asphyxiant)
- Acetone (67-64-1): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Benzene (71-43-2): **Carcinogens:** (A1 - Confirmed Human Carcinogen) | **Skin:** (skin - potential for cutaneous exposure)
- Ethanol (64-17-5): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- Ethyl Benzene (100-41-4): **Carcinogens:** (A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans)
- Methanol (67-56-1): **Skin:** (skin - potential for cutaneous exposure)
- Toluene (108-88-3): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen) | **Skin:** (skin - potential for cutaneous exposure)
- m-Xylene (108-38-3): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- o-Xylene (95-47-6): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)
- p-Xylene (106-42-3): **Carcinogens:** (A4 - Not Classifiable as a Human Carcinogen)

Italy

- Benzene (71-43-2): **Carcinogens:** (Category 1 Carcinogen) | **Skin:** (skin - potential for cutaneous absorption)
- Ethyl Benzene (100-41-4): **Skin:** (skin - potential for cutaneous absorption)
- Methanol (67-56-1): **Skin:** (skin - potential for cutaneous absorption)
- Toluene (108-88-3): **Skin:** (skin - potential for cutaneous absorption)
- m-Xylene (108-38-3): **Skin:** (skin - potential for cutaneous absorption)
- o-Xylene (95-47-6): **Skin:** (skin - potential for cutaneous absorption)
- p-Xylene (106-42-3): **Skin:** (skin - potential for cutaneous absorption)

France

- Benzene (71-43-2): **Carcinogens:** (Carcinogen category 1) | **Mutagens:** (Mutagen category 2)
- Toluene (108-88-3): **Reproductive Toxins:** (Reproductive Toxin category 3)

Ireland

- Nitrogen (7727-37-9): **Simple Asphyxiants:** (Asphyxiant)
- Benzene (71-43-2): **Carcinogens:** (Carc1A) | **Skin:** (Potential for cutaneous absorption)
- Ethyl Benzene (100-41-4): **Skin:** (Potential for cutaneous absorption)
- Methanol (67-56-1): **Skin:** (Potential for cutaneous absorption)
- Methyl Isobutyl Ketone (108-10-1): **Skin:** (Potential for cutaneous absorption)
- Toluene (108-88-3): **Skin:** (Potential for cutaneous absorption)
- m-Xylene (108-38-3): **Skin:** (Potential for cutaneous absorption)
- o-Xylene (95-47-6): **Skin:** (Potential for cutaneous absorption)
- p-Xylene (106-42-3): **Skin:** (Potential for cutaneous absorption)

Spain

- Nitrogen (7727-37-9): **Simple Asphyxiants:** (simple asphyxiant)
- Benzene (71-43-2): **Carcinogens:** (Known human carcinogen) | **Mutagens:** (Suspected human mutagen) | **Skin:** (skin - potential for cutaneous exposure)
- Ethyl Benzene (100-41-4): **Skin:** (skin - potential for cutaneous exposure)
- Methanol (67-56-1): **Skin:** (skin - potential for cutaneous exposure)
- Toluene (108-88-3): **Skin:** (skin - potential for cutaneous exposure)
- m-Xylene (108-38-3): **Skin:** (skin - potential for cutaneous exposure)
- o-Xylene (95-47-6): **Skin:** (skin - potential for cutaneous exposure)

•p-Xylene (106-42-3): **Skin:** (skin - potential for cutaneous exposure)

Sweden

•Benzene (71-43-2): **Carcinogens:** (Carcinogen) | **Skin:** (Skin notation)

•Methanol (67-56-1): **Skin:** (Skin notation)

•Toluene (108-88-3): **Skin:** (Skin notation)

•m-Xylene (108-38-3): **Skin:** (Skin notation)

•o-Xylene (95-47-6): **Skin:** (Skin notation)

•p-Xylene (106-42-3): **Skin:** (Skin notation)

Germany TRGS

•Ethyl Benzene (100-41-4): **Skin:** (skin notation)

•Methanol (67-56-1): **Skin:** (skin notation)

•Methyl Isobutyl Ketone (108-10-1): **Skin:** (skin notation)

•Toluene (108-88-3): **Skin:** (skin notation)

Germany DFG

•Diethyl Ether (60-29-7): **Pregnancy:** (classification not yet possible)

•Acetone (67-64-1): **Pregnancy:** (risk to embryo/fetus probable by exposure at exposure limit level)

•Benzene (71-43-2): **Carcinogens:** (Category 1 (causes cancer in man)) | **Skin:** (skin notation)

•Cyclohexane (110-82-7): **Pregnancy:** (classification not yet possible)

•Dimethyl Ether (115-10-6): **Pregnancy:** (classification not yet possible)

•Ethanol (64-17-5): **Carcinogens:** (Category 5 (low carcinogenic potency)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to)

•Ethyl Benzene (100-41-4): **Carcinogens:** (Category 4 (no significant contribution to human cancer)) | **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)

•Methanol (67-56-1): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)

•Methyl Isobutyl Ketone (108-10-1): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)

•Toluene (108-88-3): **Pregnancy:** (no risk to embryo/fetus if exposure limits adhered to) | **Skin:** (skin notation)

Exposure Limits Supplemental

Spain

•Ethanol (64-17-5): **Under Review:** (1000 ppm VLA-EC; 1910 mg/m3 VLA-EC; it is prohibited the partial or complete commercialization or use of this substance as a phytosanitary or biocide compound)

Sweden

•Toluene (108-88-3): **Substances with Handling Restrictions:** (Permission required for handling in concentrations $\geq 1\%$ by weight)

8.2 Exposure controls

Engineering

Measures/Controls

- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory

- Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face

- Wear safety glasses.

Skin/Body

- Wear leather gloves when handling cylinders.

Environmental Exposure

Controls

- Follow best practice for site management and disposal of waste. Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.

Key to abbreviations

ACGIH = American Conference of Governmental Industrial Hygiene

LLV = Limit Level Value is the exposure limit for 8-hour work day

MAK = Maximale Arbeitsplatz Konzentration is the maximum permissible concentration

NIOSH = National Institute of Occupational Safety and Health

STEL = Short Term Exposure Limits are based on 15-minute exposures

STEV = Short Term Exposure Value

TWAEV = Time-Weighted Average Exposure Value

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

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties

9.1 Information on Physical and Chemical Properties

| Material Description | | | |
|-------------------------------------|------------------------------|------------------------|-----------------------------|
| Physical Form | Gas | Appearance/Description | Colorless gas with no odor. |
| Color | Colorless | Odor | Odorless |
| Odor Threshold | Data lacking | | |
| General Properties | | | |
| Boiling Point | -196 C(-320.8 F) Nitrogen | Melting Point | -210 C(-346 F) Nitrogen |
| Decomposition Temperature | Data lacking | pH | Data lacking |
| Specific Gravity/Relative Density | 0.967 Water=1 Nitrogen | Water Solubility | Data lacking |
| Viscosity | Data lacking | Explosive Properties | Not explosive. |
| Oxidizing Properties: | Not an oxidizing gas. | | |
| Volatility | | | |
| Vapor Pressure | Data lacking | Vapor Density | 0.97 Air=1 Nitrogen |
| Evaporation Rate | Data lacking | | |
| Flammability | | | |
| Flash Point | Data lacking | UEL | Data lacking |
| LEL | Data lacking | Autoignition | Data lacking |
| Flammability (solid, gas) | Not flammable. | | |
| Environmental | | | |
| Octanol/Water Partition coefficient | Data lacking | | |

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable under normal temperatures and pressures.

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- Excess heat.

10.5 Incompatible materials

- Nitrogen reacts with Li, Nd, and Ti at high temperatures.

10.6 Hazardous decomposition products

- None known.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

| Components | | |
|--|--------------|---|
| Diethyl Ether (50ppb TO 499ppb) | 60- 29-7 | Acute Toxicity: Inhalation-Human TClO • 100000 mg/m ³ 30 Minute(s); Behavioral:General anesthetic; Skin-Rabbit LD50 • >20 mL/kg; Mutagen: Other mutation test systems • Unreported Route-Hamster • Fibroblast (Somatic cell) • 1 pph; DNA Inhibition • Unreported Route-Mouse • Embryo (Somatic cell) • 2850 mg/L |
| Acetone (50ppb TO 499ppb) | 67- 64-1 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 5800 mg/kg; Behavioral:Altered sleep time (including change in righting reflex); Behavioral:Tremor; Inhalation-Rat LC50 • 50100 mg/m ³ 8 Hour(s); Irritation: Eye-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Mutagen: Sex chromosome loss & nondisjunction • Inhalation-Mouse • 12 g/L; Cytogenetic analysis • Unreported Route-Hamster • Fibroblast (Somatic cell) • 40 g/L; Sex chromosome loss & nondisjunction • Unreported Route-Saccharomyces cerevisiae • 47600 ppm; Reproductive: Ingestion/Oral-Rat TDLo • 273 g/kg (13W male); Reproductive Effects:Paternal Effects:Spermatogenesis; Inhalation-Rat TClO • 11000 ppm (6-19D preg); Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities |
| Benzene (50ppb TO 499ppb) | 71- 43-2 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 1800 mg/kg; Inhalation-Rat LC50 • 10000 ppm 7 Hour(s); Irritation: Eye-Rabbit • 2 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 15 mg 24 Hour(s)-Open • Mild irritation; Mutagen: Dominant lethal test • Ingestion/Oral-Mouse • 1 mg/kg; Sister chromatid exchange • Inhalation-Mouse • 10 ppm 6 Hour(s); Reproductive: Inhalation-Rat TClO • 50 ppm 24 Hour(s)(7-14D preg); Reproductive Effects:Effects on Embryo or Fetus:Extra embryonic structures; Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Tumorigen / Carcinogen: Ingestion/Oral-Rat TDLo • 52 g/kg 52 Week(s)-Intermittent; Tumorigenic:Carcinogenic by RTECS criteria; Endocrine:Tumors; Blood:Leukemia |
| Cyclohexane (50ppb TO 499ppb) | 110- 82-7 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 12705 mg/kg; Irritation: Skin-Rabbit • 1548 mg 2 Day(s)-Intermittent |
| Dimethyl Ether (50ppb TO 499ppb) | 115- 10-6 | Acute Toxicity: Inhalation-Rat LC50 • 309 g/m ³ 4 Hour(s) |
| Ethanol (100ppb TO 499ppb) | 64- 17-5 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 7060 mg/kg; Lungs, Thorax, or Respiration:Other changes; Inhalation-Rat LC50 • 124700 mg/m ³ 4 Hour(s); Irritation: Eye-Rabbit • 500 mg • Severe irritation; Skin-Rabbit • 400 mg-Open • Mild irritation; Reproductive: Ingestion/Oral-Rat TDLo • 322 g/kg (35D male); Reproductive Effects:Paternal Effects:Spermatogenesis; Reproductive Effects:Paternal Effects:Testes, epididymis, sperm duct; Ingestion/Oral-Rat TDLo • 900 mL/kg (19D pre-21D post); Reproductive Effects:Specific Developmental Abnormalities:Central nervous system; Reproductive Effects:Effects on Newborn:Growth statistics (e.g., reduced weight gain); Reproductive Effects:Effects on Newborn:Biochemical and metabolic |
| Ethyl Benzene (50ppb TO 499ppb) | 100- 41-4 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 3500 mg/kg; Inhalation-Rat LC50 • 55000 mg/m ³ 2 Hour(s); Skin-Rabbit LD50 • 17800 µL/kg; Irritation: Eye-Rabbit • 500 mg • Severe irritation; Skin-Rabbit • 15 mg 24 Hour(s)-Open • Mild irritation; Reproductive: Inhalation-Rat TClO • 1000 ppm (6H/6-20D preg); Reproductive Effects:Specific Developmental Abnormalities:Other developmental abnormalities; Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system; Tumorigen / Carcinogen: Inhalation-Rat TClO • 750 ppm 1 Week(s)-Intermittent; Tumorigenic:Equivocal tumorigenic agent by RTECS criteria; Kidney, Ureter, and Bladder:Kidney tumors; Tumorigenic:Increased incidence of tumors in susceptible strains |
| Methanol (100ppb TO 499ppb) | 67- 56-1 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 5600 mg/kg; Inhalation-Rat LC50 • 64000 ppm 4 Hour(s); Skin-Rabbit LD50 • 15800 mg/kg; Irritation: Eye-Rabbit • 100 mg 24 Hour(s) • Moderate irritation; Skin-Rabbit • 20 mg 24 Hour(s) • Moderate irritation; Mutagen: Cytogenetic analysis • Ingestion/Oral-Mouse • 1 g/kg; DNA damage • Ingestion/Oral-Rat • 10 µmol/kg; Reproductive: Inhalation-Mouse TClO • 5000 ppm 7 Hour(s)(6-15D preg); Reproductive Effects:Specific Developmental Abnormalities:Central nervous system; Reproductive Effects:Specific Developmental Abnormalities:Craniofacial (including nose and tongue); Inhalation-Mouse TClO • 2000 ppm 7 Hour(s)(6-15D preg); |

| | | <i>Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system</i> |
|--|----------|---|
| Methyl Isobutyl Ketone (50ppb TO 499ppb) | 108-10-1 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 2080 mg/kg; Inhalation-Rat LC50 • 100 g/m ³ ; Inhalation-Human TClO • 800 mg/m ³ ; <i>Sense Organs and Special Senses:Olfaction:Other changes; Lungs, Thorax, or Respiration:Cough;</i> Inhalation-Human TClO • 4100 mg/m ³ ; <i>Brain and Coverings:Other degenerative changes; Behavioral:General anesthetic;</i> Skin-Rabbit LDLo • >3 g/kg; Irritation: Eye-Rabbit • 40 mg • Severe irritation; Skin-Rabbit • 500 mg 24 Hour(s) • Mild irritation; Multi-dose Toxicity: Inhalation-Rat TClO • 450 ppm 2 Year(s)-Intermittent; <i>Kidney, Ureter, and Bladder:Changes in tubules (including acute renal failure, acute tubular necrosis); Kidney, Ureter, and Bladder:Other changes;</i> Reproductive: Inhalation-Rat TClO • 300 ppm 6 Hour(s)(6-15D preg); <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system;</i> Inhalation-Rat TClO • 500 ppm (multigeneration); <i>Reproductive Effects:Specific Developmental Abnormalities:Urogenital system</i> |
| Toluene (50ppb TO 499ppb) | 108-88-3 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 636 mg/kg; Inhalation-Rat LC50 • 49 g/m ³ 4 Hour(s); Skin-Rabbit LD50 • 14100 µL/kg; Irritation: Eye-Rabbit • 100 mg 30 Second(s)-Rinse • Mild irritation; Skin-Rabbit • 435 mg • Mild irritation; Reproductive: Inhalation-Rat TClO • 1500 ppm (7-20D preg); <i>Reproductive Effects:Specific Developmental Abnormalities:Central nervous system; Reproductive Effects:Effects on Newborn:Growth statistics (e.g., reduced weight gain); Reproductive Effects:Effects on Newborn:Biochemical and metabolic</i> |
| m-Xylene (50ppb TO 499ppb) | 108-38-3 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 4988 mg/kg; Skin-Rabbit LD50 • 14100 µL/kg; Irritation: Eye-Rabbit • 5 mg 24 Hour(s) • Severe irritation; Skin-Rabbit • 10 µg 24 Hour(s)-Open • Severe irritation; Reproductive: Inhalation-Rat TClO • 3000 mg/m ³ 24 Hour(s)(7-14D preg); <i>Reproductive Effects:Effects on Fertility:Pre-implantation mortality; Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus); Reproductive Effects:Specific Developmental Abnormalities:Musculoskeletal system</i> |
| o-Xylene (50ppb TO 499ppb) | 95-47-6 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 3567 mg/kg; Reproductive: Inhalation-Rat TClO • 1500 mg/m ³ 24 Hour(s)(7-14D preg); <i>Reproductive Effects:Effects on Embryo or Fetus:Fetotoxicity (except death, e.g., stunted fetus)</i> |
| p-Xylene (50ppb TO 499ppb) | 106-42-3 | Acute Toxicity: Ingestion/Oral-Rat LD50 • 3910 mg/kg; Inhalation-Rat LC50 • 4550 ppm 4 Hour(s); <i>Lungs, Thorax, or Respiration:Chronic pulmonary edema; Liver:Other changes; Blood:Changes in cell count (unspecified)</i> |

| GHS Properties | Classification |
|---------------------------|---|
| Acute toxicity | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| Aspiration Hazard | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| Carcinogenicity | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| Germ Cell Mutagenicity | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| Skin corrosion/Irritation | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| Skin sensitization | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| STOT-RE | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| STOT-SE | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| Toxicity for Reproduction | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
| Respiratory sensitization | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |

| | |
|--------------------------------------|---|
| Serious eye damage/Irritation | EU/CLP • Classification criteria not met OSHA HCS 2012 • Classification criteria not met |
|--------------------------------------|---|

Potential Health Effects

Inhalation

Acute (Immediate)

- This material is a simple asphyxiant. May displace or reduce oxygen available for breathing especially in confined spaces. If this material is released in a small, poorly ventilated area (i.e. an enclosed or confined space), an oxygen-deficient environment may occur. Individuals breathing such an atmosphere may experience symptoms which include headaches, ringing in ears, dizziness, drowsiness, unconsciousness, nausea, vomiting, and depression of all the senses. Under some circumstances of over-exposure, death may occur. The following effects associated with decreased levels of oxygen: increase in breathing and pulse rate, emotional upset, abnormal fatigue, nausea, vomiting, collapse, loss of consciousness, convulsive movements, respiratory collapse and death.

Chronic (Delayed)

- No data available

Skin

Acute (Immediate)

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

Chronic (Delayed)

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

Eye

Acute (Immediate)

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

Chronic (Delayed)

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

Ingestion

Acute (Immediate)

- Ingestion is not anticipated to be a likely route of exposure to this product.

Chronic (Delayed)

- Ingestion is not anticipated to be a likely route of exposure to this product.

| Carcinogenic Effects | | | | |
|-----------------------------|------------|-----------------------------------|------------------------------|------------------------|
| | CAS | OSHA | IARC | NTP |
| Ethanol | 64-17-5 | Not Listed | Group 1-Carcinogenic | Not Listed |
| Benzene | 71-43-2 | Specifically Regulated Carcinogen | Group 1-Carcinogenic | Known Human Carcinogen |
| Ethyl Benzene | 100-41-4 | Not Listed | Group 2B-Possible Carcinogen | Not Listed |
| Methyl Isobutyl Ketone | 108-10-1 | Not Listed | Group 2B-Possible Carcinogen | Not Listed |

Key to abbreviations

LC = Lethal Concentration

LD = Lethal Dose

TC = Toxic Concentration

TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

- Material data lacking.

12.2 Persistence and degradability

- Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

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

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste

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

Packaging waste

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

Section 14 - Transport Information

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

14.6 Special precautions for user

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

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Not relevant.

Section 15 - Regulatory Information

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

SARA Hazard Classifications

- Pressure(Sudden Release of), Acute

| State Right To Know | | | | |
|------------------------|----------|-----|-----|-----|
| Component | CAS | MA | NJ | PA |
| Methyl Isobutyl Ketone | 108-10-1 | Yes | Yes | Yes |
| Acetone | 67-64-1 | Yes | Yes | Yes |
| Benzene | 71-43-2 | Yes | Yes | Yes |

| | | | | |
|----------------|-----------|-----|-----|-----|
| Cyclohexane | 110-82-7 | Yes | Yes | Yes |
| Diethyl Ether | 60-29-7 | Yes | Yes | Yes |
| Ethanol | 64-17-5 | Yes | Yes | Yes |
| Ethyl Benzene | 100-41-4 | Yes | Yes | Yes |
| Methanol | 67-56-1 | Yes | Yes | Yes |
| Dimethyl Ether | 115-10-6 | Yes | Yes | Yes |
| m-Xylene | 108-38-3 | Yes | Yes | Yes |
| Nitrogen | 7727-37-9 | Yes | Yes | Yes |
| o-Xylene | 95-47-6 | Yes | Yes | Yes |
| p-Xylene | 106-42-3 | Yes | Yes | Yes |
| Toluene | 108-88-3 | Yes | Yes | Yes |

| Inventory | | | | | | |
|------------------------|-----------|------------|-------------|-------|-----------|-----------|
| Component | CAS | Canada DSL | Canada NDSL | China | EU EINECS | EU ELNICS |
| Methyl Isobutyl Ketone | 108-10-1 | Yes | No | Yes | Yes | No |
| Acetone | 67-64-1 | Yes | No | Yes | Yes | No |
| Benzene | 71-43-2 | Yes | No | Yes | Yes | No |
| Cyclohexane | 110-82-7 | Yes | No | Yes | Yes | No |
| Diethyl Ether | 60-29-7 | Yes | No | Yes | Yes | No |
| Ethanol | 64-17-5 | Yes | No | Yes | Yes | No |
| Ethyl Benzene | 100-41-4 | Yes | No | Yes | Yes | No |
| Methanol | 67-56-1 | Yes | No | Yes | Yes | No |
| Dimethyl Ether | 115-10-6 | Yes | No | Yes | Yes | No |
| m-Xylene | 108-38-3 | Yes | No | Yes | Yes | No |
| Nitrogen | 7727-37-9 | Yes | No | Yes | Yes | No |
| o-Xylene | 95-47-6 | Yes | No | Yes | Yes | No |
| p-Xylene | 106-42-3 | Yes | No | Yes | Yes | No |
| Toluene | 108-88-3 | Yes | No | Yes | Yes | No |

| Inventory (Con't.) | | |
|------------------------|-----------|------|
| Component | CAS | TSCA |
| Methyl Isobutyl Ketone | 108-10-1 | Yes |
| Acetone | 67-64-1 | Yes |
| Benzene | 71-43-2 | Yes |
| Cyclohexane | 110-82-7 | Yes |
| Diethyl Ether | 60-29-7 | Yes |
| Ethanol | 64-17-5 | Yes |
| Ethyl Benzene | 100-41-4 | Yes |
| Methanol | 67-56-1 | Yes |
| Dimethyl Ether | 115-10-6 | Yes |
| m-Xylene | 108-38-3 | Yes |
| Nitrogen | 7727-37-9 | Yes |

| | | |
|----------|----------|-----|
| o-Xylene | 95-47-6 | Yes |
| p-Xylene | 106-42-3 | Yes |
| Toluene | 108-88-3 | Yes |

Canada

Labor

Canada - WHMIS - Classifications of Substances

| | | |
|--------------------------|-----------|-----------------------------------|
| • o-Xylene | 95-47-6 | B2, D2B |
| • p-Xylene | 106-42-3 | B2, D2A, D2B |
| • m-Xylene | 108-38-3 | B2, D2B |
| • Diethyl Ether | 60-29-7 | B2 |
| • Acetone | 67-64-1 | B2, D2B |
| • Cyclohexane | 110-82-7 | B2, D2B |
| • Ethyl Benzene | 100-41-4 | B2, D2A, D2B |
| • Methyl Isobutyl Ketone | 108-10-1 | B2, D2A |
| • Methanol | 67-56-1 | B2, D1B, D2A, D2B (including 28%) |
| • Toluene | 108-88-3 | B2, D2A, D2B |
| • Benzene | 71-43-2 | B2, D2A, D2B |
| • Ethanol | 64-17-5 | B2, D2B |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | A |

Canada - WHMIS - Ingredient Disclosure List

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | 1 % |
| • p-Xylene | 106-42-3 | 0.1 % |
| • m-Xylene | 108-38-3 | 1 % |
| • Diethyl Ether | 60-29-7 | 1 % |
| • Acetone | 67-64-1 | 1 % |
| • Cyclohexane | 110-82-7 | 1 % |
| • Ethyl Benzene | 100-41-4 | 0.1 % |
| • Methyl Isobutyl Ketone | 108-10-1 | 1 % |
| • Methanol | 67-56-1 | 1 % |
| • Toluene | 108-88-3 | 1 % |
| • Benzene | 71-43-2 | 0.1 % |
| • Ethanol | 64-17-5 | 0.1 % |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

Environment

Canada - CEPA - Priority Substances List

| | | |
|--------------------------|----------|---|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Priority Substance List 1 (substance not considered) |

| | | |
|------------------|-----------|---|
| | | toxic) |
| • Benzene | 71-43-2 | Priority Substance List 1 (substance considered toxic) |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

China

Environment

China - Ozone Depleting Substances - First Schedule

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

China - Ozone Depleting Substances - Second Schedule

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

China - Ozone Depleting Substances - Third Schedule

| | | |
|--------------------------|----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |

| | | |
|------------------|-----------|------------|
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

Other

China - Annex I & II - Controlled Chemicals Lists

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

China - Dangerous Goods List

| | | |
|--------------------------|-----------|-------------------------------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | |
| • Acetone | 67-64-1 | |
| • Cyclohexane | 110-82-7 | |
| • Ethyl Benzene | 100-41-4 | |
| • Methyl Isobutyl Ketone | 108-10-1 | |
| • Methanol | 67-56-1 | |
| • Toluene | 108-88-3 | |
| • Benzene | 71-43-2 | |
| • Ethanol | 64-17-5 | |
| • Dimethyl Ether | 115-10-6 | |
| • Nitrogen | 7727-37-9 | (compressed or refrigerated liquid) |

China - Export Control List - Part I Chemicals

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

Europe

Other

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification

| | | |
|--------------------------|-----------|---|
| • o-Xylene | 95-47-6 | R10 Xn; R20/21 Xi; R38 |
| • p-Xylene | 106-42-3 | R10 Xn; R20/21 Xi; R38 |
| • m-Xylene | 108-38-3 | R10 Xn; R20/21 Xi; R38 |
| • Diethyl Ether | 60-29-7 | F+; R12 R19 Xn; R22 R66 R67 |
| • Acetone | 67-64-1 | F; R11 Xi; R36 R66 R67 |
| • Cyclohexane | 110-82-7 | F; R11 Xi; R38 N; R50-53 Xn; R65 R67 |
| • Ethyl Benzene | 100-41-4 | F; R11 Xn; R20 |
| • Methyl Isobutyl Ketone | 108-10-1 | F; R11 Xn; R20 Xi; R36/37 R66 |
| • Methanol | 67-56-1 | F; R11 T; R23/24/25-39/23/24/25 |
| • Toluene | 108-88-3 | F; R11 Xi; R38 Xn; R48/20-65 Repr.Cat.3; R63 R67 |
| • Benzene | 71-43-2 | F; R11 Xi; R36/38 Carc.Cat.1; R45 Muta.Cat.2; R46 T; R48/23/24/25 Xn; R65 |
| • Ethanol | 64-17-5 | F; R11 |
| • Dimethyl Ether | 115-10-6 | F+; R12 |
| • Nitrogen | 7727-37-9 | Not Listed |

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits

| | | |
|--------------------------|-----------|---|
| • o-Xylene | 95-47-6 | 12.5%≤C: Xn; R:20/21 |
| • p-Xylene | 106-42-3 | 12.5%≤C: Xn; R:20/21 |
| • m-Xylene | 108-38-3 | 12.5%≤C: Xn; R:20/21 |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | 20%≤C: T; R:23/24/25 3% ≤C<20%: Xn; R:20/21/22 10% ≤C: T; R:39/23/24/25 3% ≤C<10%: Xn; R:68/20/21/22 |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling

| | | |
|-----------------|----------|--|
| • o-Xylene | 95-47-6 | Xn R:10-20/21-38 S:(2)-25 |
| • p-Xylene | 106-42-3 | Xn R:10-20/21-38 S:(2)-25 |
| • m-Xylene | 108-38-3 | Xn R:10-20/21-38 S:(2)-25 |
| • Diethyl Ether | 60-29-7 | F+ Xn R:12-19-22-66-67 S:(2)-9-16-29-33 |
| • Acetone | 67-64-1 | F Xi R:11-36-66-67 S:(2)-9-16-26 |
| • Cyclohexane | 110-82-7 | F Xn N R:11-38-65-67-50/53 S:(2)-9-16-25-33-60-61-62 |
| • Ethyl Benzene | 100-41-4 | F Xn R:11-20 S:(2)-16-24/25-29 |

| | | |
|--------------------------|-----------|---|
| • Methyl Isobutyl Ketone | 108-10-1 | F Xn R:11-20-36/37-66 S:(2)-9-16-29 |
| • Methanol | 67-56-1 | F T R:11-23/24/25-39/23/24/25 S:(1/2)-7-16-36/37-45 |
| • Toluene | 108-88-3 | F Xn R:11-38-48/20-63-65-67 S:(2)-36/37-46-62 |
| • Benzene | 71-43-2 | F T R:45-46-11-36/38-48/23/24/25-65 S:53-45 |
| • Ethanol | 64-17-5 | F R:11 S:(2)-7-16 |
| • Dimethyl Ether | 115-10-6 | F+ R:12 S:(2)-9-16-33 |
| • Nitrogen | 7727-37-9 | Not Listed |

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | C |
| • p-Xylene | 106-42-3 | C |
| • m-Xylene | 108-38-3 | C |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | E |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases

| | | |
|--------------------------|-----------|---------------------------|
| • o-Xylene | 95-47-6 | S:(2)-25 |
| • p-Xylene | 106-42-3 | S:(2)-25 |
| • m-Xylene | 108-38-3 | S:(2)-25 |
| • Diethyl Ether | 60-29-7 | S:(2)-9-16-29-33 |
| • Acetone | 67-64-1 | S:(2)-9-16-26 |
| • Cyclohexane | 110-82-7 | S:(2)-9-16-25-33-60-61-62 |
| • Ethyl Benzene | 100-41-4 | S:(2)-16-24/25-29 |
| • Methyl Isobutyl Ketone | 108-10-1 | S:(2)-9-16-29 |
| • Methanol | 67-56-1 | S:(1/2)-7-16-36/37-45 |
| • Toluene | 108-88-3 | S:(2)-36/37-46-62 |
| • Benzene | 71-43-2 | S:53-45 |
| • Ethanol | 64-17-5 | S:(2)-7-16 |
| • Dimethyl Ether | 115-10-6 | S:(2)-9-16-33 |
| • Nitrogen | 7727-37-9 | Not Listed |

Germany

Environment

Germany - TA Luft - Types and Classes

| | | |
|-----------------|----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |

| | | |
|--------------------------|-----------|---|
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | carcinogenic Substance: 5.2.7.1.1, Class III |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

Germany - Water Classification (VwVwS) - Annex 1

| | | |
|--------------------------|-----------|---|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | ID Number 1351, not considered hazardous to water |

Germany - Water Classification (VwVwS) - Annex 2 - Water Hazard Classes

| | | |
|--------------------------|-----------|---|
| • o-Xylene | 95-47-6 | ID Number 206, hazard class 2 - hazard to waters |
| • p-Xylene | 106-42-3 | ID Number 206, hazard class 2 - hazard to waters |
| • m-Xylene | 108-38-3 | ID Number 206, hazard class 2 - hazard to waters |
| • Diethyl Ether | 60-29-7 | ID Number 80, hazard class 1 - low hazard to waters |
| • Acetone | 67-64-1 | ID Number 6, hazard class 1 - low hazard to waters |
| • Cyclohexane | 110-82-7 | ID Number 63, hazard class 2 - hazard to waters |
| • Ethyl Benzene | 100-41-4 | ID Number 99, hazard class 1 - low hazard to waters |
| • Methyl Isobutyl Ketone | 108-10-1 | ID Number 137, hazard class 1 - low hazard to waters |
| • Methanol | 67-56-1 | ID Number 145, hazard class 1 - low hazard to waters |
| • Toluene | 108-88-3 | ID Number 194, hazard class 2 - hazard to waters |
| • Benzene | 71-43-2 | ID Number 29, hazard class 3 - severe hazard to waters |
| • Ethanol | 64-17-5 | ID Number 96, hazard class 1 - low hazard to waters (footnote 10) |
| • Dimethyl Ether | 115-10-6 | ID Number 714, hazard class 1 - low hazard to waters |
| • Nitrogen | 7727-37-9 | Not Listed |

Germany - Water Classification (VwVwS) - Annex 3

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

Other

Germany - Specifically Regulated Chemicals in TRGS

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

Portugal

Other

Portugal - Prohibited Substances

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

United Kingdom

Environment

United Kingdom - Pollution Inventory - Schedule 1 - Thresholds for Releases to Air

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | 10 kg |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | 100 kg |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | 100 kg |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | 1000 kg |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

Other

United Kingdom - Workplace Exposure Limits (WELs) - Substances in Review

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

United Kingdom - List of Dangerous Substances in Water

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - OSHA - Specifically Regulated Chemicals

| | | |
|--------------------------|-----------|--|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | 5 ppm STEL (See 29 CFR 1910.1028, 15 min); 0.5 ppm Action Level; 1 ppm TWA |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

| | | |
|--------------------------|-----------|-----------------------------------|
| • o-Xylene | 95-47-6 | |
| • p-Xylene | 106-42-3 | |
| • m-Xylene | 108-38-3 | |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | (listed under Ethyl benzene) |
| • Methyl Isobutyl Ketone | 108-10-1 | |
| • Methanol | 67-56-1 | |
| • Toluene | 108-88-3 | |
| • Benzene | 71-43-2 | (including Benzene from gasoline) |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

| | | |
|--------------------------|-----------|--|
| • o-Xylene | 95-47-6 | 1000 lb final RQ; 454 kg final RQ |
| • p-Xylene | 106-42-3 | 100 lb final RQ; 45.4 kg final RQ |
| • m-Xylene | 108-38-3 | 1000 lb final RQ; 454 kg final RQ |
| • Diethyl Ether | 60-29-7 | 100 lb final RQ; 45.4 kg final RQ |
| • Acetone | 67-64-1 | 5000 lb final RQ; 2270 kg final RQ |
| • Cyclohexane | 110-82-7 | 1000 lb final RQ; 454 kg final RQ |
| • Ethyl Benzene | 100-41-4 | 1000 lb final RQ; 454 kg final RQ |
| • Methyl Isobutyl Ketone | 108-10-1 | 5000 lb final RQ; 2270 kg final RQ |
| • Methanol | 67-56-1 | 5000 lb final RQ; 2270 kg final RQ |
| • Toluene | 108-88-3 | 1000 lb final RQ; 454 kg final RQ |
| • Benzene | 71-43-2 | 10 lb final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule); 4.54 kg final RQ (received an adjusted RQ of 10 lbs based on potential carcinogenicity in an August 14, 1989 final rule) |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

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

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

| | | |
|-----------------|----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |

| | | |
|--------------------------|-----------|------------|
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

| | | |
|--------------------------|-----------|--------------------------------|
| • o-Xylene | 95-47-6 | 1.0 % de minimis concentration |
| • p-Xylene | 106-42-3 | 1.0 % de minimis concentration |
| • m-Xylene | 108-38-3 | 1.0 % de minimis concentration |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | 1.0 % de minimis concentration |
| • Ethyl Benzene | 100-41-4 | 0.1 % de minimis concentration |
| • Methyl Isobutyl Ketone | 108-10-1 | 1.0 % de minimis concentration |
| • Methanol | 67-56-1 | 1.0 % de minimis concentration |
| • Toluene | 108-88-3 | 1.0 % de minimis concentration |
| • Benzene | 71-43-2 | 0.1 % de minimis concentration |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

| | | |
|-----------------|----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |

| | | |
|--------------------------|-----------|------------|
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - Basis for Listing - Appendix VII

| | | |
|--------------------------|-----------|--|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Included in waste stream: F039 |
| • Acetone | 67-64-1 | Included in waste stream: F039 |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Included in waste stream: F039 |
| • Methyl Isobutyl Ketone | 108-10-1 | Included in waste stream: F039 |
| • Methanol | 67-56-1 | Included in waste stream: F039 |
| • Toluene | 108-88-3 | Included in waste streams: F005, F024, F025, F039, K015, K036, K037, K149, K151 |
| • Benzene | 71-43-2 | Included in waste streams: F005, F024, F025, F037, F038, F039, K085, K104, K105, K141, K142, K143, K144, K145, K147, K151, K159, K169, K171, K172 |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - Constituents for Detection Monitoring

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | |
| • Methyl Isobutyl Ketone | 108-10-1 | |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | |
| • Benzene | 71-43-2 | |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - D Series Wastes - Max Conc of Contaminants for the Tox Characteristic

| | | |
|--------------------------|-----------|---------------------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | 0.5 mg/L regulatory level |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - Hazardous Constituents - Appendix VIII to 40 CFR 261

| | | |
|--------------------------|-----------|-------------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | waste number U220 |
| • Benzene | 71-43-2 | waste number U019 |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - List for Hazardous Constituents

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | |
| • p-Xylene | 106-42-3 | |
| • m-Xylene | 108-38-3 | |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | |
| • Methyl Isobutyl Ketone | 108-10-1 | |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | |
| • Benzene | 71-43-2 | |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - Phase 4 LDR Rule - Universal Treatment Standards

| | | |
|-----------------|----------|---|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | 0.12 mg/L (wastewater); 160 mg/kg (nonwastewater) |

| | | |
|--------------------------|-----------|---|
| • Acetone | 67-64-1 | 0.28 mg/L (wastewater); 160 mg/kg (nonwastewater) |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | 0.057 mg/L (wastewater); 10 mg/kg (nonwastewater) |
| • Methyl Isobutyl Ketone | 108-10-1 | 0.14 mg/L (wastewater); 33 mg/kg (nonwastewater) |
| • Methanol | 67-56-1 | 5.6 mg/L (wastewater); 0.75 mg/L TCLP (nonwastewater) |
| • Toluene | 108-88-3 | 0.080 mg/L (wastewater); 10 mg/kg (nonwastewater) |
| • Benzene | 71-43-2 | 0.14 mg/L (wastewater); 10 mg/kg (nonwastewater) |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - TSD Facilities Ground Water Monitoring

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | |
| • Methyl Isobutyl Ketone | 108-10-1 | |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | |
| • Benzene | 71-43-2 | |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

| | | |
|--------------------------|-----------|--|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | waste number U117 (Ignitable waste) |
| • Acetone | 67-64-1 | waste number U002 (Ignitable waste) |
| • Cyclohexane | 110-82-7 | waste number U056 (Ignitable waste) |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | waste number U161 (Ignitable waste) |
| • Methanol | 67-56-1 | waste number U154 (Ignitable waste) |
| • Toluene | 108-88-3 | waste number U220 |
| • Benzene | 71-43-2 | waste number U019 (Ignitable waste, Toxic waste) |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

| | | |
|--------------------------|-----------|--|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | carcinogen, initial date 6/11/04 |
| • Methyl Isobutyl Ketone | 108-10-1 | carcinogen, initial date 11/4/11 |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | carcinogen, initial date 2/27/87 |
| • Ethanol | 64-17-5 | carcinogen, initial date 4/29/11 (in alcoholic beverages) |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - California - Proposition 65 - Developmental Toxicity

| | | |
|--------------------------|-----------|---|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | developmental toxicity, initial date 3/16/12 |
| • Toluene | 108-88-3 | developmental toxicity, initial date 1/1/91 |
| • Benzene | 71-43-2 | developmental toxicity, initial date 12/26/97 |
| • Ethanol | 64-17-5 | developmental toxicity, initial date 10/1/87 (in alcoholic beverages) |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

| | | |
|--------------------------|----------|---|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | 7000 µg/day MADL (level represents absorbed dose) |
| • Benzene | 71-43-2 | 24 µg/day MADL (oral); 49 µg/day MADL (inhalation) |

| | | |
|------------------|-----------|------------|
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

| | | |
|--------------------------|-----------|--|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | 54 µg/day NSRL (inhalation); 41 µg/day NSRL (oral) |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | 6.4 µg/day NSRL (oral); 13 µg/day NSRL (inhalation) |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

| | | |
|--------------------------|-----------|--|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | female reproductive toxicity, initial date 8/7/09 |
| • Benzene | 71-43-2 | Not Listed |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

| | | |
|--------------------------|----------|--|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | male reproductive toxicity, initial date 12/26/97 |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |

| | | |
|------------|-----------|------------|
| • Nitrogen | 7727-37-9 | Not Listed |
|------------|-----------|------------|

United States - Pennsylvania

Labor

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

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | |
| • p-Xylene | 106-42-3 | |
| • m-Xylene | 108-38-3 | |
| • Diethyl Ether | 60-29-7 | |
| • Acetone | 67-64-1 | |
| • Cyclohexane | 110-82-7 | |
| • Ethyl Benzene | 100-41-4 | |
| • Methyl Isobutyl Ketone | 108-10-1 | |
| • Methanol | 67-56-1 | |
| • Toluene | 108-88-3 | |
| • Benzene | 71-43-2 | |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

| | | |
|--------------------------|-----------|------------|
| • o-Xylene | 95-47-6 | Not Listed |
| • p-Xylene | 106-42-3 | Not Listed |
| • m-Xylene | 108-38-3 | Not Listed |
| • Diethyl Ether | 60-29-7 | Not Listed |
| • Acetone | 67-64-1 | Not Listed |
| • Cyclohexane | 110-82-7 | Not Listed |
| • Ethyl Benzene | 100-41-4 | Not Listed |
| • Methyl Isobutyl Ketone | 108-10-1 | Not Listed |
| • Methanol | 67-56-1 | Not Listed |
| • Toluene | 108-88-3 | Not Listed |
| • Benzene | 71-43-2 | |
| • Ethanol | 64-17-5 | Not Listed |
| • Dimethyl Ether | 115-10-6 | Not Listed |
| • Nitrogen | 7727-37-9 | Not Listed |

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

15.3 Other Information

- WARNING: This product contains a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H220 - Extremely flammable gas
- H224 - Extremely flammable liquid and vapour
- H225 - Highly flammable liquid and vapour
- H226 - Flammable liquid and vapour
- 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
H319 - Causes serious eye irritation
H331 - Toxic if inhaled
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H340 - May cause genetic defects.
H350 - May cause cancer.
H361d - Suspected of damaging the unborn child.
H370 - Causes damage to organs.
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
EUH019 - May form explosive peroxides.
EUH066 - Repeated exposure may cause skin dryness or cracking.
R10 - Flammable.
R11 - Highly flammable.
R12 - Extremely flammable.
R19 - May form explosive peroxides.
R20 - Harmful by inhalation.
R20/21 - Harmful by inhalation and in contact with skin.
R22 - Harmful if swallowed.
R23/24/25 - Toxic by inhalation, in contact with skin and if swallowed.
R36 - Irritating to eyes.
R36/37 - Irritating to eyes and respiratory system.
R36/38 - Irritating to eyes and skin.
R38 - Irritating to skin.
R39/23/24/25 - Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
R45 - May cause cancer.
R46 - May cause heritable genetic damage.
R48/20 - Harmful: danger of serious damage to health by prolonged exposure through inhalation.
R48/23/24/25 - Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R50 - Very toxic to aquatic organisms.
R53 - May cause long-term adverse effects in the aquatic environment.
R63 - Possible risk of harm to the unborn child.
R65 - Harmful: may cause lung damage if swallowed.
R66 - Repeated exposure may cause skin dryness or cracking.
R67 - Vapours may cause drowsiness and dizziness.

Last Revision Date

- 05/September/2014

Preparation Date

- 05/September/2014

Disclaimer/Statement of Liability

- To the best of Air Liquide's knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability or completeness are not guaranteed and no warranties of any type, either express or implied, are provided. The information contained herein relates only to this specific product. If this gas mixture is combined with other materials, all component properties must be considered. Data may be changed from time to time. Be sure to consult the latest edition.

Key to abbreviations

NDA = No Data Available