## Section 1 - PRODUCT AND COMPANY IDENTIFICATION

**Material Name**
SAFETY-KLEEN HEAVY DUTY LACQUER THINNER

**Product Code**
5820, 5825, 6782

**Synonyms**
None

**Product Use**
For cleaning coating equipment (e.g., paint spray guns). If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

**Restrictions on Use**
THIS PRODUCT IS NOT FOR SALE OR USE IN THE SATAE OF CALIFORNIA.
This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal.

**MANUFACTURER**
Safety-Kleen Systems, Inc.
42 Longwater Drive
Norwell, MA 02061-9149
U.S.A.

**SUPPLIER (in CANADA)**
Safety-Kleen Canada, Inc.
25 Regan Road
Brampton, Ontario L7A 1B2
Canada

www.safety-kleen.com
Phone: 1-800-669-5740
Emergency Phone #: 1-800-468-1760

**Issue Date**
February 5, 2020

**Supersedes Issue Date**
October 15, 2019

**Original Issue Date**
July 20, 1989

## Section 2 - HAZARDS IDENTIFICATION

**Classification in accordance with Schedule 1 of Canada's Hazardous Products Regulations (HPR) (SOR/2015-17) and paragraph (d) of 29 CFR 1910.1200 in the United States**

Flammable Liquids - Category 2
Aspiration Hazard - Category 1
Acute Toxicity - Oral - Category 4
Acute Toxicity - Dermal - Category 4
Acute Toxicity - Inhalation - Vapor - Category 2
Skin Corrosion/Irritation - Category 2
Serious Eye Damage/Eye Irritation - Category 1
Germ Cell Mutagenicity - Category 1B
Carcinogenicity - Category 1A
Reproductive Toxicity - Category 2
Specific Target Organ Toxicity - Single Exposure - Category 1 (Central Nervous System, kidneys, liver, respiratory system, systemic toxicity, eyes , heart)
Specific Target Organ Toxicity - Single Exposure - Category 2 (Nervous System)
Specific Target Organ Toxicity - Single Exposure - Category 3
Specific Target Organ Toxicity - Repeated Exposure - Category 2 (Nervous System, blood, liver, kidneys)

**GHS Label Elements**
**Symbol(s)**

**Signal Word**
Danger
**Hazard Statement(s)**

Highly flammable liquid and vapor.
May be fatal if swallowed and enters airways.
Harmful if swallowed or in contact with skin.
Fatal if inhaled.
Causes skin irritation and serious eye damage.
May cause genetic defects and cancer.
Suspected of damaging fertility or the unborn child.
Causes damage to organs.
May cause respiratory irritation and drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.

**Precautionary Statement(s)**
**Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep away from heat/sparks/open flame/hot surfaces - No smoking. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wear respiratory protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

**Response**

In case of fire: Use carbon dioxide, regular foam, dry chemical, water spray, or water fog. If exposed or concerned: Call a POISON CENTER or doctor/physician. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse. IF SWALLOWED: IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth. Call a POISON CENTER or doctor immediately for treatment advice.

**Storage**

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.

**Disposal**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**Other Hazards**

None known.

## Section 3 - COMPOSITION / INFORMATION ON INGREDIENTS

| CAS | Component Name | Percent |
|---|---|---|
| 108-88-3 | Toluene | 0-60 |
| 64741-89-5 | Distillates, petroleum, solvent-refined light paraffinic | 0-60 |
| 8030-30-6 | Naphtha | 0-60 |
| 108-10-1 | 2-Pentanone, 4-methyl- | 0-60 |
| 110-43-0 | Methyl n-amyl ketone | 0-60 |
| 78-93-3 | Methyl ethyl ketone | 0-60 |
| 107-87-9 | Methyl propyl ketone | 0-60 |
| 67-64-1 | Acetone | 0-60 |
| 100-41-4 | Ethylbenzene | 0-30 |
| 763-69-9 | Ethyl 3-ethoxypropanoate | 0-17 |
| 141-78-6 | Ethyl acetate | 0-17 |
| 108-65-6 | Propylene glycol monomethyl ether acetate | 0-17 |
| 108-21-4 | Isopropyl acetate | 0-17 |
| 123-86-4 | n-Butyl acetate | 0-17 |
| 110-19-0 | Isobutyl acetate | 0-17 |
| 1330-20-7 | Xylenes (o-, m-, p- isomers) | 0-15 |
| 67-63-0 | Isopropyl alcohol | 0-10 |
| 75-65-0 | tert-Butyl alcohol | 0-10 |
| 64-17-5 | Ethyl alcohol | 0-10 |
| 71-36-3 | 1-Butanol | 0-10 |
| 71-23-8 | n-Propanol | 0-4 |
| 67-56-1 | Methanol | 0-4 |
| 127-18-4 | Tetrachloroethylene | 0-1 |
| 75-09-2 | Methylene chloride | 0-1 |
| 71-55-6 | 1,1,1-Trichloroethane | 0-1 |

## Section 4 - FIRST AID MEASURES

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.

**Skin**

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

**Ingestion**

IF SWALLOWED: Aspiration hazard. Do NOT induce vomiting. If vomiting occurs, keep head lower than hips to help prevent aspiration. Rinse mouth. Call a POISON CENTER or doctor/physician immediately for treatment advice.

**Most Important Symptoms/Effects**

**Acute**

May be fatal if swallowed and enters airways. Fatal if inhaled, harmful if swallowed, Harmful in contact with skin. Causes skin irritation, central nervous system damage, liver damage, respiratory tract irritation, central nervous system depression, eye burns, kidney damage, blood damage, lung damage (from aspiration).

**Delayed**

Mutagenic effects, cancer, reproductive effects, central nervous system damage, nervous system damage, kidney damage, liver damage, blood damage, respiratory system damage, lung damage.

**Indication of any immediate medical attention and special treatment needed**

IF exposed: Call a POISON CENTER or doctor/physician. Treat symptomatically and supportively.

## Section 5 - FIRE FIGHTING MEASURES

**Extinguishing Media**

**Suitable Extinguishing Media**

Carbon dioxide, regular foam, dry chemical, water spray, or water fog.

**Unsuitable Extinguishing Media**

Do not use high-pressure water streams.

**Special Hazards Arising from the Chemical**

Highly flammable liquid and vapor. Vapors may form explosive mixture with air. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Fire may produce irritating, poisonous and/or corrosive fumes. Runoff may create fire or explosion hazard. Empty product containers may retain product residue and can be dangerous. Containers may rupture or explode.

**Hazardous Combustion Products**

Burning may produce: Phosgene, chlorides, chloroacetylenes, formaldehyde, peracetic acid, carbon monoxide and unidentified organic compounds.

**Fire Fighting Measures**

Keep storage containers cool with water spray. Move container from fire area if it can be done without risk. Cool containers with water from unmanned hose holder or monitor nozzles until well after fire is out. Stay away from the ends of tanks. Do not scatter spilled material with high-pressure water streams. Apply water from a protected location or from a safe distance. Avoid inhalation of material or combustion by-products. Let the fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For tank, rail car or tank truck, evacuation radius: 800 meters (1/2 mile). Stay upwind and keep out of low areas. Dike for later disposal.

**Special Protective Equipment and Precautions for Firefighters**

Wear full protective fire fighting gear including self contained breathing apparatus (SCBA) for protection against possible exposure.

## Section 6 - ACCIDENTAL RELEASE MEASURES

**Personal Precautions, Protective Equipment and Emergency Procedures**

Wear personal protective clothing and equipment, see Section 8. Avoid release to the environment.

**Methods and Materials for Containment and Cleaning Up**

Remove all ignition sources. Do not touch or walk through spilled product. Stop leak if you can do it without risk. Wear protective equipment and provide engineering controls as specified in SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Ventilate area and avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors. Contain spill away from surface water and sewers. Contain spill as a liquid for possible recovery, or sorb with compatible sorbent material and shovel with a clean, sparkproof tool into a sealable container for disposal. Additionally, for large spills: Water spray may reduce vapor, but may not prevent ignition in closed spaces. Dike far ahead of liquid spill for collection and later disposal. There may be specific federal regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see SECTION 15: REGULATORY INFORMATION.

## Section 7 - HANDLING AND STORAGE

**Precautions for Safe Handling**

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring large quantities of product, metal containers, including trucks and tank cars, should be grounded and bonded. Do not breathe vapor or mist. Use in a well ventilated area. Avoid contact with eyes Skin clothing shoes. Do not smoke while using this product. Wash thoroughly after handling.

**Conditions for Safe Storage, Including any Incompatibilities**

Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition. Store in a dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Empty product containers may retain product residue and can be dangerous. See SECTION 14: TRANSPORTATION INFORMATION for Packing Group information.

**Incompatible Materials**

Combustible materials, strong acids, strong oxidizing materials, alkalis, reducing agents, reactive halogens, reactive metals

## Section 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

**Component Exposure Limits**

| **Toluene** | **108-88-3** |
|---|---|
| Alberta | 50 ppm TWA ; 188 mg/m3 TWA; Substance may be readily absorbed through intact skin |
| British Columbia; Ontario; Nova Scotia; Prince Edward Island | 20 ppm TWA |
| Manitoba | 20 ppm TWA; Skin - potential for cutaneous absorption |
| New Brunswick | 50 ppm TWA ; 188 mg/m3 TWA; Skin - potential for cutaneous absorption |

| | |
|---|---|
| Northwest Territories; Nunavut | 50 ppm TWA; 60 ppm STEL; Skin notation |
| Quebec | 50 ppm TWAEV ; 188 mg/m3 TWAEV; Skin designation |
| Saskatchewan | 50 ppm TWA; 60 ppm STEL; Potentially harmful after absorption through skin or mucous membranes |
| Yukon | 100 ppm TWA ; 375 mg/m3 TWA; 150 ppm STEL ; 560 mg/m3 STEL<br>Skin notation |
| ACGIH: | 20 ppm TWA |
| NIOSH: | 100 ppm TWA ; 375 mg/m3 TWA; 150 ppm STEL ; 560 mg/m3 STEL; 500 ppm IDLH |
| OSHA (US): | 200 ppm TWA; 300 ppm Ceiling |
| **Naphtha** | **8030-30-6** |
| Alberta | 400 ppm TWA ; 1590 mg/m3 TWA |
| British Columbia | (reciprocal calculation method - see OHS Guideline G5.48-12 ) |
| New Brunswick | 400 ppm TWA ; 1590 mg/m3 TWA |
| Northwest Territories; Nunavut; Saskatchewan | 400 ppm TWA; 500 ppm STEL |
| Quebec | 400 ppm TWAEV ; 1590 mg/m3 TWAEV |
| Yukon | 400 ppm TWA (Rubber solvent and Coal tar ); 1800 mg/m3 TWA (Rubber solvent and Coal tar )<br>500 ppm STEL (Rubber solvent and Coal tar ); 2250 mg/m3 STEL (Rubber solvent and Coal tar ) |
| NIOSH: | 100 ppm TWA ; 400 mg/m3 TWA; 1000 ppm IDLH (10% LEL ) |
| OSHA (US): | 100 ppm TWA ; 400 mg/m3 TWA |
| **2-Pentanone, 4-methyl-** | **108-10-1** |
| Alberta; New Brunswick | 50 ppm TWA ; 205 mg/m3 TWA; 75 ppm STEL ; 307 mg/m3 STEL |
| British Columbia; Northwest Territories; Nova Scotia; Ontario; Prince Edward Island | 20 ppm TWA; 75 ppm STEL |
| Manitoba | 20 ppm TWA |
| Nunavut; Saskatchewan | 50 ppm TWA; 75 ppm STEL |
| Quebec | 50 ppm TWAEV ; 205 mg/m3 TWAEV; 75 ppm STEV ; 307 mg/m3 STEV |
| Yukon | 100 ppm TWA ; 410 mg/m3 TWA; 125 ppm STEL ; 510 mg/m3 STEL<br>Skin notation |

| | |
|---|---|
| ACGIH: | 20 ppm TWA; 75 ppm STEL |
| NIOSH: | 50 ppm TWA ; 205 mg/m3 TWA; 75 ppm STEL ; 300 mg/m3 STEL; 500 ppm IDLH |
| OSHA (US): | 100 ppm TWA ; 410 mg/m3 TWA |
| **Methyl n-amyl ketone** | **110-43-0** |
| Alberta; New Brunswick | 50 ppm TWA ; 233 mg/m3 TWA |
| British Columbia; Manitoba; Nova Scotia; Prince Edward Island | 50 ppm TWA |
| Northwest Territories; Nunavut; Saskatchewan | 50 ppm TWA; 60 ppm STEL |
| Ontario | 25 ppm TWA ; 115 mg/m3 TWA |
| Quebec | 50 ppm TWAEV ; 233 mg/m3 TWAEV |
| Yukon | 100 ppm TWA ; 465 mg/m3 TWA; 150 ppm STEL ; 710 mg/m3 STEL |
| ACGIH: | 50 ppm TWA |
| NIOSH: | 100 ppm TWA ; 465 mg/m3 TWA; 800 ppm IDLH |
| OSHA (US): | 100 ppm TWA ; 465 mg/m3 TWA |
| **Methyl ethyl ketone** | **78-93-3** |
| Alberta; New Brunswick | 200 ppm TWA ; 590 mg/m3 TWA; 300 ppm STEL ; 885 mg/m3 STEL |
| British Columbia | 50 ppm TWA; 100 ppm STEL |
| Manitoba | 200 ppm TWA |
| Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan | 200 ppm TWA; 300 ppm STEL |
| Quebec | 50 ppm TWAEV ; 150 mg/m3 TWAEV; 100 ppm STEV ; 300 mg/m3 STEV |
| Yukon | 200 ppm TWA ; 590 mg/m3 TWA; 250 ppm STEL ; 740 mg/m3 STEL |
| ACGIH: | 200 ppm TWA; 300 ppm STEL |
| NIOSH: | 200 ppm TWA ; 590 mg/m3 TWA; 300 ppm STEL ; 885 mg/m3 STEL; 3000 ppm IDLH |
| OSHA (US): | 200 ppm TWA ; 590 mg/m3 TWA |
| **Methyl propyl ketone** | **107-87-9** |
| Alberta; New Brunswick | 200 ppm TWA ; 705 mg/m3 TWA; 250 ppm STEL ; 881 mg/m3 STEL |
| British Columbia | 150 ppm TWA; 250 ppm STEL |

| | |
|---|---|
| Northwest Territories; Nunavut; Saskatchewan | 200 ppm TWA; 250 ppm STEL |
| Nova Scotia; Ontario; Prince Edward Island | 150 ppm STEL |
| Quebec | 150 ppm TWAEV ; 530 mg/m3 TWAEV |
| Yukon | 200 ppm TWA ; 700 mg/m3 TWA; 250 ppm STEL ; 875 mg/m3 STEL |
| ACGIH: | 150 ppm STEL |
| NIOSH: | 150 ppm TWA ; 530 mg/m3 TWA; 1500 ppm IDLH |
| OSHA (US): | 200 ppm TWA ; 700 mg/m3 TWA |
| **Ethylbenzene** | **100-41-4** |
| Alberta; New Brunswick | 100 ppm TWA ; 434 mg/m3 TWA; 125 ppm STEL ; 543 mg/m3 STEL |
| British Columbia; Manitoba; Nova Scotia; Ontario; Prince Edward Island | 20 ppm TWA |
| Northwest Territories; Nunavut; Saskatchewan | 100 ppm TWA; 125 ppm STEL |
| Quebec | 100 ppm TWAEV ; 434 mg/m3 TWAEV; 125 ppm STEV ; 543 mg/m3 STEV |
| Yukon | 100 ppm TWA ; 435 mg/m3 TWA; 125 ppm STEL ; 545 mg/m3 STEL |
| ACGIH: | 20 ppm TWA |
| NIOSH: | 100 ppm TWA ; 435 mg/m3 TWA; 125 ppm STEL ; 545 mg/m3 STEL<br>800 ppm IDLH (10% LEL ) |
| OSHA (US): | 100 ppm TWA ; 435 mg/m3 TWA |
| **Acetone** | **67-64-1** |
| Alberta | 500 ppm TWA ; 1200 mg/m3 TWA; 750 ppm STEL ; 1800 mg/m3 STEL |
| British Columbia; Nova Scotia; Ontario; Prince Edward Island | 250 ppm TWA; 500 ppm STEL |
| Manitoba | 250 ppm TWA |
| New Brunswick | 500 ppm TWA ; 1188 mg/m3 TWA; 750 ppm STEL ; 1782 mg/m3 STEL |
| Northwest Territories; Nunavut Saskatchewan | 500 ppm TWA; 750 ppm STEL |
| Quebec | 500 ppm TWAEV ; 1190 mg/m3 TWAEV; 1000 ppm STEV ; 2380 mg/m3 STEV |

| | |
|---|---|
| Yukon | 1000 ppm TWA ; 2400 mg/m3 TWA; 1250 ppm STEL ; 3000 mg/m3 STEL |
| ACGIH: | 250 ppm TWA; 500 ppm STEL |
| NIOSH: | 250 ppm TWA ; 590 mg/m3 TWA; 2500 ppm IDLH (10% LEL ) |
| OSHA (US): | 1000 ppm TWA ; 2400 mg/m3 TWA |
| **Ethyl 3-ethoxypropanoate** | **763-69-9** |
| Ontario | 50 ppm TWA ; 300 mg/m3 TWA |
| **Ethyl acetate** | **141-78-6** |
| Alberta; New Brunswick | 400 ppm TWA ; 1440 mg/m3 TWA |
| British Columbia | 150 ppm TWA |
| Manitoba; Nova Scotia; Ontario; Prince Edward Island | 400 ppm TWA |
| Northwest Territories; Nunavut; Saskatchewan | 400 ppm TWA; 500 ppm STEL |
| Quebec | 400 ppm TWAEV ; 1440 mg/m3 TWAEV |
| Yukon | 400 ppm TWA ; 1400 mg/m3 TWA; 400 ppm STEL ; 1400 mg/m3 STEL |
| ACGIH: | 400 ppm TWA |
| NIOSH: | 400 ppm TWA ; 1400 mg/m3 TWA; 2000 ppm IDLH (10% LEL ) |
| OSHA (US): | 400 ppm TWA ; 1400 mg/m3 TWA |
| **Ethylbenzene** | **100-41-4** |
| ACGIH: | 20 ppm TWA |
| NIOSH: | 100 ppm TWA ; 435 mg/m3 TWA; 125 ppm STEL ; 545 mg/m3 STEL<br>800 ppm IDLH (10% LEL ) |
| OSHA (US): | 100 ppm TWA ; 435 mg/m3 TWA |
| **Propylene glycol monomethyl ether acetate** | **108-65-6** |
| British Columbia | 50 ppm TWA; 75 ppm STEL |
| Ontario | 50 ppm TWA ; 270 mg/m3 TWA |
| **Isopropyl acetate** | **108-21-4** |
| Alberta | 100 ppm TWA ; 416 mg/m3 TWA; 200 ppm STEL ; 832 mg/m3 STEL |

| | |
|---|---|
| British Columbia; Northwest Territories; Nunavut; Ontario; Saskatchewan | 100 ppm TWA; 200 ppm STEL |
| Manitoba | 100 ppm TWA |
| New Brunswick | 250 ppm TWA ; 1040 mg/m3 TWA; 310 ppm STEL ; 1290 mg/m3 STEL |
| Nova Scotia; Prince Edward Island | 100 ppm TWA; 150 ppm STEL |
| Quebec | 250 ppm TWAEV ; 1040 mg/m3 TWAEV; 310 ppm STEV ; 1290 mg/m3 STEV |
| Yukon | 250 ppm TWA ; 950 mg/m3 TWA; 310 ppm STEL ; 1185 mg/m3 STEL |
| ACGIH: | 100 ppm TWA; 150 ppm STEL |
| NIOSH: | 1800 ppm IDLH |
| OSHA (US): | 250 ppm TWA ; 950 mg/m3 TWA |
| **n-Butyl acetate** | **123-86-4** |
| Alberta; New Brunswick | 150 ppm TWA ; 713 mg/m3 TWA; 200 ppm STEL ; 950 mg/m3 STEL |
| British Columbia | 20 ppm TWA |
| Manitoba | 50 ppm TWA |
| Northwest Territories; Nunavut; Ontario; Saskatchewan | 150 ppm TWA; 200 ppm STEL |
| Nova Scotia; Prince Edward Island | 50 ppm TWA; 150 ppm STEL |
| Quebec | 150 ppm TWAEV ; 713 mg/m3 TWAEV; 200 ppm STEV ; 950 mg/m3 STEV |
| Yukon | 150 ppm TWA ; 710 mg/m3 TWA; 200 ppm STEL ; 950 mg/m3 STEL |
| ACGIH: | 50 ppm TWA; 150 ppm STEL |
| NIOSH: | 150 ppm TWA ; 710 mg/m3 TWA; 200 ppm STEL ; 950 mg/m3 STEL<br>1700 ppm IDLH (10% LEL ) |
| OSHA (US): | 150 ppm TWA ; 710 mg/m3 TWA |
| **Isobutyl acetate** | **110-19-0** |
| Alberta; New Brunswick | 150 ppm TWA ; 713 mg/m3 TWA |
| British Columbia; Ontario | 150 ppm TWA |
| Manitoba | 50 ppm TWA |

| | |
|---|---|
| Northwest Territories; Nunavut; Saskatchewan | 150 ppm TWA; 188 ppm STEL |
| Nova Scotia: Prince Edward Island | 50 ppm TWA; 150 ppm STEL |
| Quebec | 150 ppm TWAEV ; 713 mg/m3 TWAEV |
| Yukon | 150 ppm TWA ; 700 mg/m3 TWA; 187 ppm STEL ; 875 mg/m3 STEL |
| ACGIH: | 50 ppm TWA; 150 ppm STEL |
| NIOSH: | 150 ppm TWA ; 700 mg/m3 TWA; 1300 ppm IDLH (10% LEL ) |
| OSHA (US): | 150 ppm TWA ; 700 mg/m3 TWA |
| **Xylenes (o-, m-, p- isomers)** | **1330-20-7** |
| Alberta; New Brunswick | 100 ppm TWA ; 434 mg/m3 TWA; 150 ppm STEL ; 651 mg/m3 STEL |
| British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan | 100 ppm TWA; 150 ppm STEL |
| Manitoba | 100 ppm TWA |
| Quebec | 100 ppm TWAEV ; 434 mg/m3 TWAEV ; 50 ppm STEV ; 651 mg/m3 STEV |
| Yukon | 100 ppm TWA ; 435 mg/m3 TWA; 150 ppm STEL ; 650 mg/m3 STEL<br>Skin notation |
| ACGIH: | 100 ppm TWA; 150 ppm STEL |
| OSHA (US): | 100 ppm TWA ; 435 mg/m3 TWA |
| **tert-Butyl alcohol** | **75-65-0** |
| Alberta; New Brunswick | 100 ppm TWA ; 303 mg/m3 TWA |
| British Columbia; Manitoba; Nova Scotia; Ontario; Prince Edward Island | 100 ppm TWA |
| Northwest Territories Nunavut; Saskatchewan | 100 ppm TWA; 125 ppm STEL |
| Quebec | 100 ppm TWAEV ; 303 mg/m3 TWAEV |
| Yukon | 100 ppm TWA ; 300 mg/m3 TWA; 150 ppm STEL ; 450 mg/m3 STEL |
| ACGIH: | 100 ppm TWA |

| **1-Butanol** | **71-36-3** |
|---|---|
| Alberta | 20 ppm TWA ; 60 mg/m3 TWA |
| British Columbia | 15 ppm TWA; 30 ppm Ceiling |
| Manitoba | 20 ppm TWA; Skin - potential for cutaneous absorption |
| New Brunswick | 50 ppm Ceiling ; 152 mg/m3 Ceiling; Skin - potential for cutaneous absorption |
| Northwest Territories; Nunavut; Saskatchewan | 20 ppm TWA; 30 ppm STEL |
| Nova Scotia; Ontario; Prince Edward Island | 20 ppm TWA |
| Quebec | 50 ppm Ceiling ; 152 mg/m3 Ceiling; Skin designation |
| Yukon | 50 ppm Ceiling ; 150 mg/m3 Ceiling; Skin notation |
| ACGIH: | 20 ppm TWA |
| **Isopropyl alcohol** | **67-63-0** |
| Alberta | 200 ppm TWA ; 492 mg/m3 TWA; 400 ppm STEL ; 984 mg/m3 STEL |
| British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan | 200 ppm TWA; 400 ppm STEL |
| Manitoba | 200 ppm TWA |
| New Brunswick | 400 ppm TWA ; 983 mg/m3 TWA; 500 ppm STEL ; 1230 mg/m3 STEL |
| Quebec | 400 ppm TWAEV ; 985 mg/m3 TWAEV; 500 ppm STEV ; 1230 mg/m3 STEV |
| Yukon | 400 ppm TWA ; 980 mg/m3 TWA; 500 ppm STEL ; 1225 mg/m3 STEL<br>Skin notation |
| ACGIH: | 200 ppm TWA; 400 ppm STEL |
| NIOSH: | 400 ppm TWA ; 980 mg/m3 TWA; 500 ppm STEL ; 1225 mg/m3 STEL<br>2000 ppm IDLH (10% LEL ) |
| OSHA (US): | 400 ppm TWA ; 980 mg/m3 TWA |
| **Ethyl alcohol** | **64-17-5** |
| Alberta; New Brunswick | 1000 ppm TWA ; 1880 mg/m3 TWA |
| British Columbia | 1000 ppm STEL |
| Northwest Territories; Nunavut; Saskatchewan | 1000 ppm TWA; 1250 ppm STEL |

| | |
|---|---|
| Nova Scotia; Ontario: Prince Edward Island | 1000 ppm STEL |
| Quebec | 1000 ppm TWAEV ; 1880 mg/m3 TWAEV |
| Yukon | 1000 ppm TWA ; 1900 mg/m3 TWA; 1000 ppm STEL ; 1900 mg/m3 STEL |
| ACGIH: | 1000 ppm STEL |
| NIOSH: | 1000 ppm TWA ; 1900 mg/m3 TWA; 3300 ppm IDLH (10% LEL ) |
| OSHA (US): | 1000 ppm TWA ; 1900 mg/m3 TWA |
| **1-Butanol** | **71-36-3** |
| ACGIH: | 20 ppm TWA |
| NIOSH: | 50 ppm Ceiling ; 150 mg/m3 Ceiling; Potential for dermal absorption<br>1400 ppm IDLH (10% LEL ) |
| OSHA (US): | 100 ppm TWA ; 300 mg/m3 TWA |
| **Methanol** | **67-56-1** |
| Alberta | 200 ppm TWA ; 262 mg/m3 TWA; 250 ppm STEL ; 328 mg/m3 STEL<br>Substance may be readily absorbed through intact skin |
| British Columbia; Northwest Territories; Nunavut | 200 ppm TWA; Skin notation; 250 ppm STEL |
| Manitoba; Nova Scotia | 200 ppm TWA; Skin - potential for cutaneous absorption<br>Skin - potential significant contribution to overall exposure by the cutaneous route |
| New Brunswick | 200 ppm TWA ; 262 mg/m3 TWA; 250 ppm STEL ; 328 mg/m3 STEL<br>Skin - potential for cutaneous absorption |
| Ontario | 200 ppm TWA; 250 ppm STEL; Danger of cutaneous absorption |
| Prince Edward Island | 200 ppm TWA; 250 ppm STEL |
| Quebec | 200 ppm TWAEV ; 262 mg/m3 TWAEV; 250 ppm STEV ; 328 mg/m3 STEV; Skin designation |
| Saskatchewan | 200 ppm TWA; 250 ppm STEL; Potentially harmful after absorption through skin or mucous membranes |
| Yukon | 200 ppm TWA ; 260 mg/m3 TWA; 250 ppm STEL ; 310 mg/m3 STEL<br>Skin notation |
| ACGIH: | 200 ppm TWA; 250 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route |
| ACGIH: | 200 ppm TWA; 250 ppm STEL; Skin - potential significant contribution to overall exposure by the cutaneous route |

| | |
|---|---|
| NIOSH: | 200 ppm TWA ; 260 mg/m3 TWA; 250 ppm STEL ; 325 mg/m3 STEL<br>Potential for dermal absorption; 6000 ppm IDLH |
| **n-Propanol** | **71-23-8** |
| Alberta | 200 ppm TWA ; 492 mg/m3 TWA; 400 ppm STEL ; 984 mg/m3 STEL |
| British Columbia | 100 ppm TWA |
| Manitoba | 100 ppm TWA; Skin - potential for cutaneous absorption |
| New Brunswick | 200 ppm TWA ; 492 mg/m3 TWA; 250 ppm STEL ; 614 mg/m3 STEL<br>Skin - potential for cutaneous absorption |
| Northwest Territories; Nunavut; Saskatchewan | 200 ppm TWA; 400 ppm STEL |
| Nova Scotia; Ontario; Prince Edward Island | 100 ppm TWA |
| Quebec | 200 ppm TWAEV ; 492 mg/m3 TWAEV; 250 ppm STEV ; 614 mg/m3 STEV; Skin designation |
| Yukon | 200 ppm TWA ; 500 mg/m3 TWA; 250 ppm STEL ; 625 mg/m3 STEL<br>Skin notation |
| ACGIH: | 100 ppm TWA |
| NIOSH: | 200 ppm TWA ; 500 mg/m3 TWA; 250 ppm STEL ; 625 mg/m3 STEL<br>Potential for dermal absorption; 800 ppm IDLH |
| OSHA (US): | 200 ppm TWA ; 500 mg/m3 TWA |
| **Tetrachloroethylene** | **127-18-4** |
| Alberta; New Brunswick | 25 ppm TWA ; 170 mg/m3 TWA; 100 ppm STEL ; 678 mg/m3 STEL |
| British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan | 25 ppm TWA; 100 ppm STEL |
| Manitoba | 25 ppm TWA |
| Quebec | 25 ppm TWAEV ; 170 mg/m3 TWAEV; 100 ppm STEV ; 685 mg/m3 STEV |
| Yukon | 100 ppm TWA ; 670 mg/m3 TWA; 150 ppm STEL ; 1000 mg/m3 STEL<br>Skin notation |
| ACGIH: | 25 ppm TWA; 100 ppm STEL |
| NIOSH: | 150 ppm IDLH |
| OSHA (US): | 100 ppm TWA; 200 ppm Ceiling |

| | |
|---|---|
| **Methylene chloride** | **75-09-2** |
| Alberta; New Brunswick | 50 ppm TWA ; 174 mg/m3 TWA |
| British Colombia | 25 ppm TWA |
| Manitoba; Nova Scotia; Ontario; Prince Edward Island | 50 ppm TWA |
| Northwest Territories | 50 ppm TWA; 75 ppm STEL ; 63 ppm STEL (regulated under Methylene chloride ) |
| Nunavut | 50 ppm TWA; 75 ppm STEL (regulated under Dichloromethane ); 63 ppm STEL |
| Quebec | 50 ppm TWAEV ; 174 mg/m3 TWAEV |
| Saskatchewan | 50 ppm TWA; 63 ppm STEL ; 75 ppm STEL (regulated under Dichloromethane ) |
| Yukon | 200 ppm TWA ; 700 mg/m3 TWA ; 720 mg/m3 TWA (regulated under Dichloromethane )<br>250 ppm STEL ; 870 mg/m3 STEL ; 200 ppm STEL (regulated under Dichloromethane ); 720 mg/m3 STEL (regulated under Dichloromethane ) |
| ACGIH: | 50 ppm TWA |
| NIOSH: | 2300 ppm IDLH |
| OSHA (US): | 25 ppm TWA; 125 ppm STEL (See 29 CFR 1910.1052 ) 15 min ; 12.5 ppm Action Level (See 29 CFR 1910.1052 ); 25 ppm TWA (See 29 CFR 1910.1052 )<br>125 ppm STEL (see 29 CFR 1910.1052 ) |
| **1,1,1-Trichloroethane** | **71-55-6** |
| Alberta; New Brunswick | 350 ppm TWA ; 1910 mg/m3 TWA; 450 ppm STEL ; 2460 mg/m3 STEL |
| British Columbia; Northwest Territories; Nova Scotia; Nunavut; Ontario; Prince Edward Island; Saskatchewan | 350 ppm TWA; 450 ppm STEL |
| Manitoba | 350 ppm TWA |
| Quebec | 350 ppm TWAEV ; 1910 mg/m3 TWAEV; 450 ppm STEV ; 2460 mg/m3 STEV |
| Yukon | 350 ppm TWA ; 1900 mg/m3 TWA; 440 ppm STEL ; 2400 mg/m3 STEL |
| ACGIH: | 350 ppm TWA; 450 ppm STEL |
| NIOSH: | 350 ppm Ceiling 15 min ; 1900 mg/m3 Ceiling 15 min; 700 ppm IDLH |
| OSHA (US): | 350 ppm TWA ; 1900 mg/m3 TWA |

**ACGIH - Threshold Limit Values - Biological Exposure Indices (BEI)**

**Toluene (108-88-3)**

0.02 mg/l Medium: blood Time: prior to last shift of workweek Parameter: Toluene ; 0.03 mg/l Medium: urine Time: end of shift Parameter: Toluene ; 0.3 mg/g creatinine Medium: urine Time: end of shift Parameter: o-Cresol with hydrolysis (background )

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

1 mg/l Medium: urine Time: end of shift Parameter: MIBK
**Methyl ethyl ketone (78-93-3)**
2 mg/l Medium: urine Time: end of shift Parameter: MEK (nonspecific )
**Acetone (67-64-1)**
25 mg/l Medium: urine Time: end of shift Parameter: Acetone (nonspecific )
**Ethylbenzene (100-41-4)**
0.15 g/g creatinine Medium: urine Time: end of shift Parameter: Sum of mandelic acid and phenylglyoxylic acid (nonspecific )
**Xylenes (o-, m-, p- isomers) (1330-20-7)**
1.5 g/g creatinine Medium: urine Time: end of shift Parameter: Methylhippuric acids
**Isopropyl alcohol (67-63-0)**
40 mg/l Medium: urine Time: end of shift at end of workweek Parameter: Acetone (background, nonspecific)
**Methanol (67-56-1)**
15 mg/l Medium: urine Time: end of shift Parameter: Methanol (background, nonspecific)
**Tetrachloroethylene (127-18-4)**
3 ppm Medium: end-exhaled air Time: prior to shift Parameter: Tetrachloroethylene ; 0.5 mg/l Medium: blood Time: prior to shift Parameter: Tetrachloroethylene
**Methylene chloride (75-09-2)**
0.3 mg/l Medium: urine Time: end of shift Parameter: Dichloromethane (semi-quantitative )
**1,1,1-Trichloroethane (71-55-6)**
40 ppm Medium: end-exhaled air Time: prior to last shift of workweek Parameter: Methyl chloroform ; 10 mg/l Medium: urine Time: end of workweek Parameter: Trichloroacetic acid (nonspecific, semi-quantitative); 30 mg/l Medium: urine Time: end of shift at end of workweek Parameter: Total trichloroethanol (nonspecific, semi-quantitative ); 1 mg/l Medium: blood Time: end of shift at end of workweek Parameter: Total trichloroethanol (nonspecific )

**Engineering Controls**

Provide general ventilation needed to maintain concentration of vapor or mist below applicable exposure limits. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below applicable exposure limits. Use explosion-proof equipment. Ensure compliance with applicable exposure limits.

**Individual Protection Measures, such as Personal Protective Equipment**

**Eye/face protection**

Wear splash resistant safety goggles with a faceshield. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

**Skin Protection/Glove Recommendations**

Where skin contact is likely, wear chemical impervious protective gloves; use of natural rubber (latex), polyvinyl chloride (PVC), neoprene or equivalent gloves is not recommended. To avoid prolonged or repeated contact where spills and splashes are likely, wear appropriate chemical-resistant faceshield, boots, apron, whole body suits, or other protective clothing.

**Respiratory Protection**

A respiratory protection program which meets USA's OSHA General Industry Standard 29 CFR 1910.134 or Canada's CSA Standard Z94.4-M1982 requirements must be followed whenever workplace conditions warrant a respirator's use. Consult a qualified Industrial Hygienist or Safety Professional for respirator selection guidance.

**Protective Materials**

Personal protective equipment should be selected based upon the conditions under which this material is used. A hazard assessment of the work area for PPE requirements should be conducted by a qualified professional pursuant to regulatory requirements. The following PPE should be considered the minimum required: Safety glasses, Gloves, Lab coat or apron.

## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|---|---|---|
| **Appearance** | Clear liquid. | **Physical State** | Liquid |
| **Odor** | Solvent odor. | **Color** | Colorless. |
| **Odor Threshold** | Not available | **pH** | Not available |
| **Melting Point** | -129 - -22 °C (-200 - -8 °F ) | **Boiling Point** | 56 - 172 °C (133 - 342 °F ) |
| **Boiling Point Range** | Not available | **Freezing point** | Not available |
| **Evaporation Rate** | 3.7 (Similar product Butyl acetate = 1 ) | **Flammability (solid, gas)** | Flammable. |
| **Autoignition Temperature** | 427 °C (800 °F ) | **Flash Point** | <21 °C [Closed Cup.] (70 °F ) |
| **Lower Explosive Limit** | 1 vol% (Approximate) | **Decomposition temperature** | Not available |
| **Upper Explosive Limit** | 13 vol% (Approximate) | **Vapor Pressure** | 86 mm Hg @ 68 ºF (20 °C) |
| **Vapor Density (air=1)** | 2.2 - 3.9 (Approximate Air = 1) | **Specific Gravity (water=1)** | 0.83 (Approximate Water = 1) |
| **Water Solubility** | (Slight ) | **Partition coefficient: n-octanol/water** | Not available |
| **Viscosity** | Not available | **Kinematic viscosity** | Not available |
| **Solubility (Other)** | Not available | **Density** | 6.9 lb/gal (US Approximate) |
| **Physical Form** | Liquid. | **Volatility** | 80 - 100 wt% (as per 40 CFR part 51.100(s) ) |
| **Molecular Weight** | Not available | **OSHA Flammability Category** | Flammable |

## Section 10 - STABILITY AND REACTIVITY

**Reactivity**
No reactivity hazard is expected.
**Chemical Stability**
Stable under normal temperatures and pressures.
**Possibility of Hazardous Reactions**
Will not polymerize under normal temperature and pressure conditions.
**Conditions to Avoid**
Avoid heat, flames, sparks and other sources of ignition Avoid contact with incompatible materials.
**Incompatible Materials**
Acids, alkalis, oxidizing agents, reducing agents, reactive halogens, or reactive metals.

**Hazardous decomposition products**

Not applicable under normal conditions of use and storage. See also SECTION 5: HAZARDOUS COMBUSTION PRODUCTS.

## Section 11 - TOXICOLOGICAL INFORMATION

**Information on Likely Routes of Exposure**

**Inhalation**

Fatal if inhaled. May cause irritation, nausea, central nervous system effects. May cause drowsiness or dizziness. May cause respiratory irritation.

**Skin Contact**

Harmful in contact with skin. Causes skin irritation.

**Eye Contact**

Causes serious eye damage.

**Ingestion**

May be fatal if swallowed and enters airways. Aspiration Hazard. Harmful if swallowed. May cause, throat irritation, nausea, vomiting, diarrhea.

**Acute and Chronic Toxicity**

**Component Analysis - LD50/LC50**

The components of this material have been reviewed in various sources and the following selected endpoints are published:

**Toluene (108-88-3)**
Oral LD50 Rat 2600 mg/kg; Dermal LD50 Rabbit 12000 mg/kg; Inhalation LC50 Rat 12.5 mg/L 4 h

**Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)**
Oral LD50 Rat >15 g/kg; Dermal LD50 Rabbit >5 g/kg; Inhalation LC50 Rat 2.18 mg/L 4 h

**Naphtha (8030-30-6)**
Oral LD50 Rat >5 g/kg; Inhalation LC50 Rat 15000 ppm 4 h

**2-Pentanone, 4-methyl- (108-10-1)**
Oral LD50 Rat 2080 mg/kg; Dermal LD50 Rabbit 3000 mg/kg; Inhalation LC50 Rat 2000 - 4000 ppm 4 h

**Methyl n-amyl ketone (110-43-0)**
Oral LD50 Rat 1600 mg/kg; dermal LD50 Rabbit 12.6 mL/kg; Inhalation LC50 Rat 2000 - 4000 ppm 6 h

**Methyl ethyl ketone (78-93-3)**
Oral LD50 Rat 2483 mg/kg; Dermal LD50 Rabbit 5000 mg/kg; Inhalation LC50 Rat 11700 ppm 4 h

**Methyl propyl ketone (107-87-9)**
Oral LD50 Rat 1600 mg/kg; Dermal LD50 Rat 6480 mg/kg; Inhalation LC50 Rat 2000 - 4000 ppm 4 h

**Acetone (67-64-1)**
Oral LD50 Rat 5800 mg/kg; Dermal LD50 Rabbit >15700 mg/kg; Inhalation LC50 Rat 50100 mg/m3 8 h

**Ethylbenzene (100-41-4)**
Oral LD50 Rat 3500 mg/kg; Dermal LD50 Rabbit 15400 mg/kg; Inhalation LC50 Rat 17.4 mg/L 4 h

**Ethyl 3-ethoxypropanoate (763-69-9)**
Oral LD50 Rat 5 g/kg; Dermal LD50 Rabbit >9500 mg/kg; Inhalation LC50 Rat >5.96 mg/L 6 h (no deaths occurred)

**Ethyl acetate (141-78-6)**
Oral LD50 Rat 5620 mg/kg; Dermal LD50 Rabbit >18000 mg/kg; Inhalation LC50 Rat 4000 ppm 4 h

**Propylene glycol monomethyl ether acetate (108-65-6)**
Oral LD50 Rat 8532 mg/kg; Dermal LD50 Rabbit >5 g/kg

**Isopropyl acetate (108-21-4)**
Oral LD50 Rat 3000 mg/kg; Dermal LD50 Rabbit >17436 mg/kg; Inhalation LC50 Rat 50600 mg/m3 8 h

**n-Butyl acetate (123-86-4)**
Oral LD50 Rat 10768 mg/kg; Dermal LD50 Rabbit >17600 mg/kg; Inhalation LC50 Rat 390 ppm 4 h

**Isobutyl acetate (110-19-0)**
Oral LD50 Rat 15400 mg/kg; Dermal LD50 Rabbit >17400 mg/kg

**Xylenes (o-, m-, p- isomers) (1330-20-7)**
Oral LD50 Rat 3500 mg/kg; Dermal LD50 Rabbit >4350 mg/kg; Inhalation LC50 Rat 29.08 mg/L 4 h

**Isopropyl alcohol (67-63-0)**
Oral LD50 Rat 1870 mg/kg; Dermal LD50 Rabbit 4059 mg/kg; Inhalation LC50 Rat 72600 mg/m3 4 h
**tert-Butyl alcohol (75-65-0)**
Oral LD50 Rat 2200 mg/kg; Dermal LD50 Rabbit >2 g/kg (no deaths occurred ); Inhalation LC50 Rat >10000 ppm 4 h
**Ethyl alcohol (64-17-5)**
Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h
**1-Butanol (71-36-3)**
Oral LD50 Rat 700 mg/kg; Dermal LD50 Rabbit 3402 mg/kg; Inhalation LC50 Rat >8000 ppm 4 h
**n-Propanol (71-23-8)**
Oral LD50 Rat 1870 mg/kg; Dermal LD50 Rabbit 4049 mg/kg; Inhalation LC50 Rat >13548 ppm 4 h
**Methanol (67-56-1)**
Oral LD50 Rat 6200 mg/kg; Dermal LD50 Rabbit 15840 mg/kg; Inhalation LC50 Rat 22500 ppm 8 h
**Tetrachloroethylene (127-18-4)**
Oral LD50 Rat 2629 mg/kg; Inhalation LC50 Rat 27.8 mg/L 4 h
**Methylene chloride (75-09-2)**
Oral LD50 Rat 1600 mg/kg; Inhalation LC50 Rat 53 mg/L 6 h
**1,1,1-Trichloroethane (71-55-6)**
Oral LD50 Rat 9600 mg/kg; Dermal LD50 Rabbit >15800 mg/kg; Inhalation LC50 Rat 18000 ppm 4 h

**Product Toxicity Data**

**Acute Toxicity Estimate**

| | |
|---|---|
| Dermal | 1403.7248 mg/kg |
| Inhalation - Vapor | 1.253 mg/L |
| Oral | 499.1655 mg/kg |

**Immediate Effects**

Fatal if inhaled, Harmful in contact with skin. harmful if swallowed, eye burns, skin irritation, respiratory tract irritation, aspiration hazard, central nervous system damage, central nervous system depression, respiratory system damage, liver damage, kidney damage, lung damage (from aspiration).

**Delayed Effects**

Mutagenic effects, cancer, reproductive effects, central nervous system damage, nervous system damage, kidney damage, liver damage, respiratory system damage, blood damage, lung damage.

**Irritation/Corrosivity Data**

Eye burns, skin irritation, respiratory tract irritation.

**Respiratory Sensitization**

No information available for the product.

**Dermal Sensitization**

No information available for the product.

**Component Carcinogenicity**

May cause cancer.

| **Toluene** | **108-88-3** |
|---|---|
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| IARC: | Monograph 71 [1999] ; Monograph 47 [1989] (Group 3 (not classifiable)) |
| **2-Pentanone, 4-methyl-** | **108-10-1** |
| ACGIH: | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| IARC: | Monograph 101 [2013] (Group 2B (possibly carcinogenic to humans)) |

| | |
|---|---|
| OSHA: | Present |
| **Acetone** | **67-64-1** |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| **Ethylbenzene** | **100-41-4** |
| ACGIH: | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| IARC: | Monograph 77 [2000] (Group 2B (possibly carcinogenic to humans)) |
| DFG: | Category 4 (no significant contribution to human cancer ) |
| OSHA: | Present |
| **Xylenes (o-, m-, p- isomers)** | **1330-20-7** |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| IARC: | Monograph 71 [1999] ; Monograph 47 [1989] (Group 3 (not classifiable)) |
| **Isopropyl alcohol** | **67-63-0** |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| IARC: | Monograph 71 [1999] ; Supplement 7 [1987] ; Monograph 15 [1977] (Group 3 (not classifiable)) |
| **tert-Butyl alcohol** | **75-65-0** |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| **Ethyl alcohol** | **64-17-5** |
| ACGIH: | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| IARC: | Monograph 100E [2012] (in alcoholic beverages ); Monograph 96 [2010] (in alcoholic beverages ) (Group 1 (carcinogenic to humans)) |
| DFG: | Category 5 (low carcinogenic potency ) |
| OSHA: | Present |
| **n-Propanol** | **71-23-8** |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| **Tetrachloroethylene** | **127-18-4** |
| ACGIH: | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| IARC: | Monograph 106 [2014] ; Monograph 63 [1995] ; Supplement 7 [1987] (Group 2A (probably carcinogenic to humans)) |
| NTP: | Reasonably Anticipated To Be A Human Carcinogen |

| | |
|---|---|
| DFG: | Category 3B (could be carcinogenic for man ) |
| OSHA: | Present |
| NIOSH: | potential occupational carcinogen |
| **Methylene chloride** | **75-09-2** |
| ACGIH: | A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans |
| IARC: | Monograph 110 [2017] ; Monograph 71 [1999] (Group 2A (probably carcinogenic to humans)) |
| NTP: | Reasonably Anticipated To Be A Human Carcinogen |
| DFG: | Category 5 (low carcinogenic potency ) |
| OSHA: | Present |
| OSHA: | see 29 CFR 1910.1052 |
| NIOSH: | potential occupational carcinogen |
| **1,1,1-Trichloroethane** | **71-55-6** |
| ACGIH: | A4 - Not Classifiable as a Human Carcinogen |
| IARC: | Monograph 71 [1999] ; Supplement 7 [1987] ; Monograph 20 [1979] (Group 3 (not classifiable)) |

**Germ Cell Mutagenicity**

May cause genetic defects.

**Tumorigenic Data**

No data available

**Reproductive Toxicity**

Available data characterizes this substance as a reproductive hazard.

**Specific Target Organ Toxicity - Single Exposure**

Central nervous system, respiratory system, kidneys, liver, systemic toxicity, eyes, heart.

**Specific Target Organ Toxicity - Repeated Exposure**

Nervous system, kidneys, liver, blood,

**Aspiration hazard**

This material is an aspiration hazard.

**Medical Conditions Aggravated by Exposure**

Blood disorders, central nervous system disorders, eye disorders, hearing or inner ear disorders, kidney disorders, liver disorders, nervous system disorders, respiratory disorders, skin disorders, heart disorders, systemic disorders

## Section 12 - ECOLOGICAL INFORMATION

**Ecotoxicity**

Harmful to aquatic life with long lasting effects.

**Component Analysis - Aquatic Toxicity**

| | |
|---|---|
| **Toluene** | **108-88-3** |

| | |
|---|---|
| Fish: | LC50 96 h Pimephales promelas 15.22 - 19.05 mg/L [flow-through ] (1 day old ); LC50 96 h Pimephales promelas 12.6 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 5.89 - 7.81 mg/L [flow-through ]; LC50 96 h Oncorhynchus mykiss 14.1 - 17.16 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 5.8 mg/L [semi-static ]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static ]; LC50 96 h Oryzias latipes 54 mg/L [static ]; LC50 96 h Poecilia reticulata 28.2 mg/L [semi-static ]; LC50 96 h Poecilia reticulata 50.87 - 70.34 mg/L [static ] |
| Algae: | EC50 96 h Pseudokirchneriella subcapitata >433 mg/L IUCLID ; EC50 72 h Pseudokirchneriella subcapitata 12.5 mg/L [static ] EPA |
| Invertebrate: | EC50 48 h Daphnia magna 5.46 - 9.83 mg/L [Static ] EPA ; EC50 48 h Daphnia magna 11.5 mg/L IUCLID |
| **Distillates, petroleum, solvent-refined light paraffinic** | **64741-89-5** |
| Fish: | LC50 96 h Oncorhynchus mykiss >5000 mg/L |
| Invertebrate: | EC50 48 h Daphnia magna >1000 mg/L IUCLID |
| **Naphtha** | **8030-30-6** |
| Fish: | LC50 96 h Lepomis macrochirus 9.2 mg/L [static ] |
| Algae: | EC50 72 h Pseudokirchneriella subcapitata 4700 mg/L IUCLID |
| **2-Pentanone, 4-methyl-** | **108-10-1** |
| Fish: | LC50 96 h Pimephales promelas 496 - 514 mg/L [flow-through ] |
| Algae: | EC50 96 h Pseudokirchneriella subcapitata 400 mg/L IUCLID |
| Invertebrate: | EC50 48 h Daphnia magna 170 mg/L IUCLID |
| **Methyl n-amyl ketone** | **110-43-0** |
| Fish: | LC50 96 h Pimephales promelas 126 - 137 mg/L [flow-through ] |
| **Methyl ethyl ketone** | **78-93-3** |
| Fish: | LC50 96 h Pimephales promelas 3130 - 3320 mg/L [flow-through ] |
| Invertebrate: | EC50 48 h Daphnia magna >520 mg/L IUCLID ; EC50 48 h Daphnia magna 5091 mg/L IUCLID ; EC50 48 h Daphnia magna 4025 - 6440 mg/L [Static ] EPA |
| **Methyl propyl ketone** | **107-87-9** |
| Fish: | LC50 96 h Pimephales promelas 1190 - 1290 mg/L [flow-through ] |
| **Acetone** | **67-64-1** |
| Fish: | LC50 96 h Oncorhynchus mykiss 4.74 - 6.33 mL/L; LC50 96 h Pimephales promelas 6210 - 8120 mg/L [static ]; LC50 96 h Lepomis macrochirus 8300 mg/L |

| | |
|---|---|
| Invertebrate: | EC50 48 h Daphnia magna 10294 - 17704 mg/L [Static ] EPA ; EC50 48 h Daphnia magna 12600 - 12700 mg/L IUCLID |
| **Ethylbenzene** | **100-41-4** |
| Fish: | LC50 96 h Oncorhynchus mykiss 11 - 18 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 4.2 mg/L [semi-static ]; LC50 96 h Pimephales promelas 7.55 - 11 mg/L [flow-through ]; LC50 96 h Lepomis macrochirus 32 mg/L [static ]; LC50 96 h Pimephales promelas 9.1 - 15.6 mg/L [static ]; LC50 96 h Poecilia reticulata 9.6 mg/L [static ] |
| Algae: | EC50 72 h Pseudokirchneriella subcapitata 4.6 mg/L IUCLID ; EC50 96 h Pseudokirchneriella subcapitata >438 mg/L IUCLID ; EC50 72 h Pseudokirchneriella subcapitata 2.6 - 11.3 mg/L [static ] EPA ; EC50 96 h Pseudokirchneriella subcapitata 1.7 - 7.6 mg/L [static ] EPA |
| Invertebrate: | EC50 48 h Daphnia magna 1.8 - 2.4 mg/L IUCLID |
| **Ethyl 3-ethoxypropanoate** | **763-69-9** |
| Fish: | LC50 96 h Pimephales promelas 62 mg/L [static ] |
| Invertebrate: | EC50 48 h Daphnia magna 970 mg/L IUCLID |
| **Ethyl acetate** | **141-78-6** |
| Fish: | LC50 96 h Pimephales promelas 220 - 250 mg/L [flow-through ]; LC50 96 h Oncorhynchus mykiss 484 mg/L [flow-through ]; LC50 96 h Oncorhynchus mykiss 352 - 500 mg/L [semi-static ] |
| Invertebrate: | EC50 48 h Daphnia magna 560 mg/L [Static ] EPA |
| **Propylene glycol monomethyl ether acetate** | **108-65-6** |
| Fish: | LC50 96 h Pimephales promelas 161 mg/L [static ] |
| Invertebrate: | EC50 48 h Daphnia magna >500 mg/L IUCLID |
| **n-Butyl acetate** | **123-86-4** |
| Fish: | LC50 96 h Lepomis macrochirus 100 mg/L [static ]; LC50 96 h Pimephales promelas 17 - 19 mg/L [flow-through ] |
| Algae: | EC50 72 h Desmodesmus subspicatus 674.7 mg/L IUCLID |
| **Isobutyl acetate** | **110-19-0** |
| Fish: | LC50 96 h Oryzias latipes 17 mg/L |
| **Xylenes (o-, m-, p- isomers)** | **1330-20-7** |
| Fish: | LC50 96 h Pimephales promelas 13.4 mg/L [flow-through ]; LC50 96 h Oncorhynchus mykiss 2.661 - 4.093 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 13.5 - 17.3 mg/L; LC50 96 h Lepomis macrochirus 13.1 - 16.5 mg/L [flow-through ]; LC50 96 h Lepomis macrochirus 19 mg/L; LC50 96 h Lepomis |

| | |
|---|---|
| | macrochirus 7.711 - 9.591 mg/L [static ]; LC50 96 h Pimephales promelas 23.53 - 29.97 mg/L [static ]; LC50 96 h Cyprinus carpio 780 mg/L [semi-static ]; LC50 96 h Cyprinus carpio >780 mg/L; LC50 96 h Poecilia reticulata 30.26 - 40.75 mg/L [static ] |
| Invertebrate: | EC50 48 h water flea 3.82 mg/L; LC50 48 h Gammarus lacustris 0.6 mg/L |
| **Isopropyl alcohol** | **67-63-0** |
| Fish: | LC50 96 h Pimephales promelas 9640 mg/L [flow-through ]; LC50 96 h Pimephales promelas 11130 mg/L [static ]; LC50 96 h Lepomis macrochirus >1400000 µg/L |
| Algae: | EC50 96 h Desmodesmus subspicatus >1000 mg/L IUCLID ; EC50 72 h Desmodesmus subspicatus >1000 mg/L IUCLID |
| Invertebrate: | EC50 48 h Daphnia magna 13299 mg/L IUCLID |
| **tert-Butyl alcohol** | **75-65-0** |
| Fish: | LC50 96 h Pimephales promelas 6130 - 6700 mg/L [flow-through ] |
| Algae: | EC50 72 h Desmodesmus subspicatus >1000 mg/L IUCLID |
| Invertebrate: | EC50 48 h Daphnia magna 933 mg/L IUCLID ; EC50 48 h Daphnia magna 4607 - 6577 mg/L [Static ] EPA |
| **Ethyl alcohol** | **64-17-5** |
| Fish: | LC50 96 h Oncorhynchus mykiss 12 - 16 mL/L [static ]; LC50 96 h Pimephales promelas >100 mg/L [static ]; LC50 96 h Pimephales promelas 13400 - 15100 mg/L [flow-through ] |
| Invertebrate: | LC50 48 h Daphnia magna 9268 - 14221 mg/L IUCLID ; EC50 48 h Daphnia magna 2 mg/L [Static ] EPA |
| **1-Butanol** | **71-36-3** |
| Fish: | LC50 96 h Pimephales promelas 1730 - 1910 mg/L [static ]; LC50 96 h Pimephales promelas 1740 mg/L [flow-through ]; LC50 96 h Lepomis macrochirus 100000 - 500000 µg/L [static ]; LC50 96 h Pimephales promelas 1910000 µg/L [static ] |
| Algae: | EC50 96 h Desmodesmus subspicatus >500 mg/L IUCLID ; EC50 72 h Desmodesmus subspicatus >500 mg/L IUCLID |
| Invertebrate: | EC50 48 h Daphnia magna 1983 mg/L IUCLID ; EC50 48 h Daphnia magna 1897 - 2072 mg/L [Static ] EPA |
| **n-Propanol** | **71-23-8** |
| Fish: | LC50 96 h Pimephales promelas 4480 mg/L [flow-through ] |
| Invertebrate: | EC50 48 h Daphnia magna 3642 mg/L IUCLID ; EC50 48 h Daphnia magna 3339 - 3977 mg/L [Static ] EPA |
| **Methanol** | **67-56-1** |

| | |
|---|---|
| Fish: | LC50 96 h Pimephales promelas 28200 mg/L [flow-through ]; LC50 96 h Pimephales promelas >100 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 19500 - 20700 mg/L [flow-through ]; LC50 96 h Oncorhynchus mykiss 18 - 20 mL/L [static ]; LC50 96 h Lepomis macrochirus 13500 - 17600 mg/L [flow-through ] |
| **Tetrachloroethylene** | **127-18-4** |
| Fish: | LC50 96 h Pimephales promelas 12.4 - 14.4 mg/L [flow-through ]; LC50 96 h Pimephales promelas 8.6 - 13.5 mg/L [static ]; LC50 96 h Lepomis macrochirus 11 - 15 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 4.73 - 5.27 mg/L [flow-through ] |
| Algae: | EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA |
| Invertebrate: | EC50 48 h Daphnia magna 6.1 - 9 mg/L [Static ] EPA |
| **Methylene chloride** | **75-09-2** |
| Fish: | LC50 96 h Pimephales promelas 140.8 - 277.8 mg/L [flow-through ]; LC50 96 h Pimephales promelas 262 - 855 mg/L [static ]; LC50 96 h Lepomis macrochirus 193 mg/L [static ]; LC50 96 h Lepomis macrochirus 193 mg/L [flow-through ] |
| Algae: | EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA ; EC50 72 h Pseudokirchneriella subcapitata >500 mg/L EPA |
| Invertebrate: | EC50 48 h Daphnia magna 1532 - 1847 mg/L [Static ] EPA ; EC50 48 h Daphnia magna 190 mg/L IUCLID |
| **1,1,1-Trichloroethane** | **71-55-6** |
| Fish: | LC50 96 h Lepomis macrochirus 57 - 90 mg/L [static ] (juvenile ); LC50 96 h Pimephales promelas 35.2 - 50.7 mg/L [flow-through ]; LC50 96 h Cyprinus carpio 56 mg/L [flow-through ]; LC50 96 h Poecilia reticulata 52.9 mg/L [flow-through ]; LC50 96 h Poecilia reticulata 69.7 mg/L [static ]; LC50 96 h Pimephales promelas 91 - 126 mg/L [static ]; LC50 96 h Oncorhynchus mykiss 46 - 59 mg/L [static ] |
| Algae: | EC50 96 h Pseudokirchneriella subcapitata >500 mg/L EPA |
| Invertebrate: | LC50 48 h Daphnia magna >530 mg/L IUCLID ; EC50 48 h Daphnia magna 2384 mg/L IUCLID ; EC50 48 h Daphnia magna 9.7 - 12.8 mg/L [Static ] EPA |

**Invertebrate Toxicity**

No additional information is available.

**Persistence and Degradability**

No information available for the product.

**Bioaccumulative Potential**

No information available for the product.

**Mobility**

No information available for the product.

**Other Toxicity**

No additional information is available.

## Section 13 - DISPOSAL CONSIDERATIONS

**Disposal Methods**

Dispose of in accordance with all applicable federal, state and local regulations. Regulations may also apply to empty containers. The responsibility for proper waste disposal lies with the owner of the waste. Contact Safety-Kleen regarding proper recycling or disposal. D001, D018, D035, D039. Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

## Section 14 - TRANSPORT INFORMATION

**US DOT Information:**
**Shipping Name:** PAINT RELATED MATERIAL
**Hazard Class:** 3
**UN/NA #:** UN1263
**Packing Group:** II
**Required Label(s):** 3 FLAMMABLE LIQUID

**IATA Information:**
**Shipping Name:** PAINT RELATED MATERIAL
**Hazard Class:** 3
**UN#:** UN1263
**Packing Group:** II
**Required Label(s):** 3 FLAMMABLE LIQUID

**IMDG Information:**
**Shipping Name:** PAINT RELATED MATERIAL
**Hazard Class:** 3
**UN#:** UN1263
**Packing Group:** II
**Required Label(s):** 3 FLAMMABLE LIQUID

**TDG Information:**
**Shipping Name:** PAINT RELATED MATERIAL
**Hazard Class:** 3
**UN#:** UN1263
**Packing Group:** II
**Required Label(s):** 3 FLAMMABLE LIQUID

**International Bulk Chemical Code**

This material contains one or more of the following chemicals required by the IBC Code to be identified as dangerous chemicals in bulk.

| | |
|---|---|
| **Toluene** | **108-88-3** |
| IBC Code: | Category Y |
| **Naphtha** | **8030-30-6** |
| IBC Code: | Category Y |
| **2-Pentanone, 4-methyl-** | **108-10-1** |

| | |
|---|---|
| IBC Code: | Category Z |
| **Methyl n-amyl ketone** | **110-43-0** |
| IBC Code: | Category Z |
| **Methyl ethyl ketone** | **78-93-3** |
| IBC Code: | Category Z |
| **Ethylbenzene** | **100-41-4** |
| IBC Code: | Category Y |
| **Ethyl 3-ethoxypropanoate** | **763-69-9** |
| IBC Code: | Category Y |
| **Ethyl acetate** | **141-78-6** |
| IBC Code: | Category Z |
| **Propylene glycol monomethyl ether acetate** | **108-65-6** |
| IBC Code: | Category Z |
| **Isopropyl acetate** | **108-21-4** |
| IBC Code: | Category Z |
| **Xylenes (o-, m-, p- isomers)** | **1330-20-7** |
| IBC Code: | Category Y |
| **tert-Butyl alcohol** | **75-65-0** |
| IBC Code: | Category Z |
| **n-Propanol** | **71-23-8** |
| IBC Code: | Category Y |
| **Methanol** | **67-56-1** |
| IBC Code: | Category Y |
| **Tetrachloroethylene** | **127-18-4** |
| IBC Code: | Category Y |
| **Methylene chloride** | **75-09-2** |
| IBC Code: | Category Y |
| **1,1,1-Trichloroethane** | **71-55-6** |
| IBC Code: | Category Y |

**Further information**

Emergency Response Guide Number 128 Reference .North American Emergency Response Guidebook

## Section 15 - REGULATORY INFORMATION

**Canada Regulations**

**CEPA - Priority Substances List**

| | |
|---|---|
| **Toluene** | **108-88-3** |
| | Priority Substance List 1 (substance not considered toxic ) |
| **Xylenes (o-, m-, p- isomers)** | **1330-20-7** |
| | Priority Substance List 1 (substance not considered toxic ) |
| **Tetrachloroethylene** | **127-18-4** |
| | Priority Substance List 1 (substance considered toxic ) |
| **Methylene chloride** | **75-09-2** |
| | Priority Substance List 1 (substance considered toxic ) |
| **1,1,1-Trichloroethane** | **71-55-6** |
| | Priority Substance List 1 (substance considered toxic, added to CEPA's Schedule 1, List of Toxic Substances ) |

**Ozone Depleting Substances**

| | |
|---|---|
| **1,1,1-Trichloroethane** | **71-55-6** |
| Alberta | Schedule 1 |

**Council of Ministers of the Environment - Soil Quality Guidelines**

| | |
|---|---|
| **Toluene** | **108-88-3** |
| Residential and Parkland | 0.37 mg/kg coarse (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur ); 0.08 mg/kg fine (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur ); 0.37 mg/kg coarse (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur ); 0.08 mg/kg fine (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 660 mg/kg in coarse soil, or 680 mg/kg in fine soil, formation of free-phase Toluene will likely occur ) |

| | |
|---|---|
| **Ethylbenzene** | **100-41-4** |
| Residential and Parkland | 0.082 mg/kg coarse (surface (<=1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur ); 0.018 mg/kg fine (surface (<=1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur ); 0.082 mg/kg coarse (subsoil (>1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur ); 0.018 mg/kg fine (subsoil (>1.5 m), this value may be less than the common limit of detection in some jurisdictions. Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 430 mg/kg soil, formation of free-phase Ethylbenzene will likely occur ) |
| **Xylenes (o-, m-, p-isomers)** | **1330-20-7** |
| Residential and Parkland | 11 mg/kg coarse (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur ); 2.4 mg/kg fine (surface (<=1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur ); 11 mg/kg coarse (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur ); 2.4 mg/kg fine (subsoil (>1.5 m), Free-phase formation, a circumstance deemed unacceptable by many jurisdictions, occurs when a substance exceeds its solubility limit in soil water. The concentration at which this occurs is dependent on soil texture, porosity, and aeration porosity. Under the assumptions used for this guideline, at concentrations greater than 600 mg/kg in coarse soil, or 610 mg/kg in fine soil, formation of free-phase Toluene will likely occur ) |
| **Methanol** | **67-56-1** |
| Residential and Parkland | 4.6 mg/kg coarse (dry weight, human health soil quality guideline ); 7.7 mg/kg coarse (dry weight, environmental soil quality guideline ); 4.6 mg/kg coarse (dry weight, soil quality guideline - lower of the human health soil quality guideline and the environmental soil quality guideline is the soil quality guideline ); 5.6 mg/kg fine (dry weight, human health soil quality guideline ); 190 mg/kg |

| | |
|---|---|
| | fine (dry weight, environmental soil quality guideline ); 5.6 mg/kg fine (dry weight, soil quality guideline - lower of the human health soil quality guideline and the environmental soil quality guideline is the soil quality guideline ) |
| **Tetrachloroethylene** | **127-18-4** |
| Residential and Parkland | 0.2 mg/kg (dry weight ) |
| **Methylene chloride** | **75-09-2** |
| Residential and Parkland | 5 mg/kg (dry weight ) |
| **1,1,1-Trichloroethane** | **71-55-6** |
| Residential and Parkland | 5 mg/kg (dry weight ) |

**Council of Ministers of the Environment - Water Quality Guidelines**

| | |
|---|---|
| **Toluene** | **108-88-3** |
| Marine Aquatic Life | 215 µg/L |
| **Ethylbenzene** | **100-41-4** |
| Marine Aquatic Life | 25 µg/L |

**U.S. Federal Regulations**

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), CERCLA (40 CFR 302.4), TSCA 12(b), and/or require an OSHA process safety plan.

| | |
|---|---|
| **Toluene** | **108-88-3** |
| SARA 313: | 1 % de minimis concentration |
| CERCLA: | 1000 lb final RQ ; 454 kg final RQ |
| **2-Pentanone, 4-methyl-** | **108-10-1** |
| SARA 313: | 0.1 % de minimis concentration |
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| **Methyl ethyl ketone** | **78-93-3** |
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| **Acetone** | **67-64-1** |
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| **Ethylbenzene** | **100-41-4** |
| SARA 313: | 0.1 % de minimis concentration |

| | |
|---|---|
| CERCLA: | 1000 lb final RQ ; 454 kg final RQ |
| **Ethyl acetate** | **141-78-6** |
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| **n-Butyl acetate** | **123-86-4** |
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| **Isobutyl acetate** | **110-19-0** |
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| **Xylenes (o-, m-, p- isomers)** | **1330-20-7** |
| SARA 313: | 1 % de minimis concentration |
| CERCLA: | 100 lb final RQ ; 45.4 kg final RQ |
| **Isopropyl alcohol** | **67-63-0** |
| SARA 313: | 1 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification ) |
| **tert-Butyl alcohol** | **75-65-0** |
| SARA 313: | 1 % de minimis concentration |
| **1-Butanol** | **71-36-3** |
| SARA 313: | 1 % de minimis concentration |
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| **Methanol** | **67-56-1** |
| SARA 313: | 1 % de minimis concentration |
| CERCLA: | 5000 lb final RQ ; 2270 kg final RQ |
| **Tetrachloroethylene** | **127-18-4** |
| SARA 313: | 0.1 % de minimis concentration |
| CERCLA: | 100 lb final RQ ; 45.4 kg final RQ |
| **Methylene chloride** | **75-09-2** |
| SARA 313: | 0.1 % de minimis concentration |
| CERCLA: | 1000 lb final RQ ; 454 kg final RQ |
| TSCA 12b: | Section 6 , 0.1 % de minimis concentration |
| **1,1,1-Trichloroethane** | **71-55-6** |

| | |
|---|---|
| SARA 313: | 1 % de minimis concentration |
| CERCLA: | 1000 lb final RQ ; 454 kg final RQ |

**SARA Section 311/312 (40 CFR 370 Subparts B and C) reporting categories**

Flammable; Carcinogenicity; Acute toxicity; Reproductive Toxicity; Skin Corrosion/Irritation; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity; Aspiration Hazard; Germ Cell Mutagenicity

**U.S. State Regulations**

The following components appear on one or more of the following state hazardous substances lists:

| Component | CAS | CA | MA | MN | NJ | PA |
|---|---|---|---|---|---|---|
| **Toluene** | **108-88-3** | Yes | Yes | Yes | Yes | Yes |
| **Distillates, petroleum, solvent-refined light paraffinic** | **64741-89-5** | No | Yes | No | No | No |
| **Naphtha** | **8030-30-6** | Yes | Yes | Yes | Yes | Yes |
| **2-Pentanone, 4-methyl-** | **108-10-1** | Yes | Yes | Yes | Yes | Yes |
| **Methyl n-amyl ketone** | **110-43-0** | Yes | Yes | Yes | Yes | Yes |
| **Methyl ethyl ketone** | **78-93-3** | Yes | Yes | Yes | Yes | Yes |
| **Methyl propyl ketone** | **107-87-9** | Yes | Yes | Yes | Yes | Yes |
| **Acetone** | **67-64-1** | Yes | Yes | Yes | Yes | Yes |
| **Ethylbenzene** | **100-41-4** | Yes | Yes | Yes | Yes | Yes |
| **Ethyl acetate** | **141-78-6** | Yes | Yes | Yes | Yes | Yes |
| **Isopropyl acetate** | **108-21-4** | Yes | Yes | Yes | Yes | Yes |
| **n-Butyl acetate** | **123-86-4** | Yes | Yes | Yes | Yes | Yes |
| **Isobutyl acetate** | **110-19-0** | Yes | Yes | Yes | Yes | Yes |
| **Xylenes (o-, m-, p- isomers)** | **1330-20-7** | Yes | Yes | Yes | Yes | Yes |
| **Isopropyl alcohol** | **67-63-0** | Yes | Yes | Yes | Yes | Yes |
| **tert-Butyl alcohol** | **75-65-0** | Yes | Yes | Yes | Yes | Yes |
| **Ethyl alcohol** | **64-17-5** | Yes | Yes | Yes | Yes | Yes |
| **1-Butanol** | **71-36-3** | Yes | Yes | Yes | Yes | Yes |
| **n-Propanol** | **71-23-8** | Yes | Yes | Yes | Yes | Yes |
| **Methanol** | **67-56-1** | Yes | Yes | Yes | Yes | Yes |
| **Tetrachloroethylene** | **127-18-4** | Yes | Yes | Yes | Yes | Yes |
| **Methylene chloride** | **75-09-2** | Yes | Yes | Yes | Yes | Yes |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **1,1,1-Trichloroethane** | **71-55-6** | Yes | Yes | Yes | Yes | Yes |

**California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)**
THIS PRODUCT IS NOT FOR SALE OR USE IN THE STATE OF CALIFORNIA.

**Component Analysis - Inventory**

**Toluene (108-88-3)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| Yes | Yes | Yes | Yes | Yes | Yes | Yes |

**Distillates, petroleum, solvent-refined light paraffinic (64741-89-5)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | No | No | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| No | Yes | Yes | Yes | No | Yes | Yes |

**Naphtha (8030-30-6)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | No | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| No | Yes | Yes | Yes | Yes | Yes | Yes |

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

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| No | Yes | Yes | Yes | Yes | Yes | Yes |

**Methyl n-amyl ketone (110-43-0)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| No | Yes | Yes | Yes | Yes | Yes | Yes |

**Methyl ethyl ketone (78-93-3)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| Yes | | Yes | Yes | Yes | Yes | Yes | Yes | |

**Methyl propyl ketone (107-87-9)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| No | | Yes | Yes | Yes | Yes | Yes | Yes | |

**Acetone (67-64-1)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| No | | Yes | Yes | Yes | Yes | Yes | Yes | |

**Ethylbenzene (100-41-4)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| No | | Yes | Yes | Yes | Yes | Yes | Yes | |

**Ethyl 3-ethoxypropanoate (763-69-9)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| No | | Yes | Yes | Yes | Yes | Yes | Yes | |

**Ethyl acetate (141-78-6)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| Yes | | Yes | Yes | Yes | Yes | Yes | Yes | |

**Propylene glycol monomethyl ether acetate (108-65-6)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| No | | Yes | Yes | Yes | Yes | Yes | Yes | |

**Isopropyl acetate (108-21-4)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| No | | Yes | Yes | Yes | Yes | Yes | Yes | |

**n-Butyl acetate (123-86-4)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| No | | Yes | Yes | Yes | Yes | Yes | Yes | |

**Isobutyl acetate (110-19-0)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| No | | Yes | Yes | Yes | Yes | Yes | Yes | |

**Xylenes (o-, m-, p- isomers) (1330-20-7)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| Yes | | Yes | Yes | Yes | Yes | Yes | Yes | |

**Isopropyl alcohol (67-63-0)**

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |
| KR - REACH CCA | | MX | NZ | PH | TH-TECI | TW | VN (Draft) | |
| No | | Yes | Yes | Yes | Yes | Yes | Yes | |

**tert-Butyl alcohol (75-65-0)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| No | Yes | Yes | Yes | Yes | Yes | Yes |

**Ethyl alcohol (64-17-5)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| No | Yes | Yes | Yes | Yes | Yes | Yes |

**1-Butanol (71-36-3)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| No | Yes | Yes | Yes | Yes | Yes | Yes |

**n-Propanol (71-23-8)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| No | Yes | Yes | Yes | Yes | Yes | Yes |

**Methanol (67-56-1)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| Yes | Yes | Yes | Yes | Yes | Yes | Yes |

**Tetrachloroethylene (127-18-4)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| Yes | Yes | Yes | Yes | Yes | Yes | Yes |

**Methylene chloride (75-09-2)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| Yes | Yes | Yes | Yes | Yes | Yes | Yes |

**1,1,1-Trichloroethane (71-55-6)**

| US | CA | AU | CN | EU | JP - ENCS | JP - ISHL | KR KECI - Annex 1 | KR KECI - Annex 2 |
|---|---|---|---|---|---|---|---|---|
| Yes | DSL | Yes | Yes | EIN | Yes | Yes | Yes | No |

| KR - REACH CCA | MX | NZ | PH | TH-TECI | TW | VN (Draft) |
|---|---|---|---|---|---|---|
| No | Yes | Yes | Yes | No | Yes | Yes |

**TSCA (Toxic Substances Control Act) - Section 6 - Restricted Substances**

| Chemical name | CAS No | |
|---|---|---|
| **Methylene chloride** | **75-09-2** | This chemical/product is not and cannot be distributed in commerce (as defined in TSCA section 3(5)) or processed (as defined in TSCA section 3(13)) for consumer paint or coating removal. |

## Section 16 - OTHER INFORMATION

**NFPA Ratings**

Health: 4 Fire: 3 Instability: 0

Hazard Scale: 0 = Minimal 1 = Slight 2 = Moderate 3 = Serious 4 = Severe

**Summary of Changes**

Summary of Changes: SECTION 2: Hazard identification. SECTION 3: Composition / information on ingredients. SECTION 4: First aid measures. SECTION 11: Toxicological information. SECTION 15: Regulatory information.

**Key / Legend**

ACGIH - American Conference of Governmental Industrial Hygienists; ADR - European Road Transport; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CA/MA/MN/NJ/PA - California/Massachusetts/Minnesota/New Jersey/Pennsylvania*; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CFR - Code of Federal Regulations (US); CLP - Classification, Labelling, and Packaging; CN - China; CPR - Controlled Products Regulations; DFG - Deutsche Forschungsgemeinschaft; DOT - Department of Transportation; DSD - Dangerous Substance Directive; DSL - Domestic Substances List; EC – European Commission; EEC - European Economic Community; EIN - European Inventory of (Existing Commercial Chemical Substances); EINECS - European Inventory of Existing Commercial Chemical Substances; ENCS - Japan Existing and New Chemical Substance Inventory; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; F - Background (for Venezuela Biological Exposure Indices); IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IDLH - Immediately Dangerous to Life and Health; IMDG - International Maritime Dangerous Goods; ISHL - Japan Industrial Safety and Health Law; IUCLID -

International Uniform Chemical Information Database; JP - Japan; Kow - Octanol/water partition coefficient; KR KECI Annex 1 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL); KR KECI Annex 2 - Korea Existing Chemicals Inventory (KECI) / Korea Existing Chemicals List (KECL) , KR - Korea; LD50/LC50 - Lethal Dose/ Lethal Concentration; LEL - Lower Explosive Limit; LLV - Level Limit Value; LOLI - List Of LIsts™ - ChemADVISOR's Regulatory Database; MAK - Maximum Concentration Value in the Workplace; MEL - Maximum Exposure Limits; MX – Mexico; Ne- Non-specific; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; Nq - Non-quantitative; NSL – Non-Domestic Substance List (Canada); NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PEL- Permissible Exposure Limit; PH - Philippines; RCRA - Resource Conservation and Recovery Act; REACH- Registration, Evaluation, Authorisation, and restriction of Chemicals; RID - European Rail Transport; SARA - Superfund Amendments and Reauthorization Act; Sc - Semi-quantitative; STEL - Short-term Exposure Limit; TCCA – Korea Toxic Chemicals Control Act; TDG - Transportation of Dangerous Goods; TLV - Threshold Limit Value; TSCA - Toxic Substances Control Act; TW – Taiwan; TWA - Time Weighted Average; UEL - Upper Explosive Limit; UN/NA - United Nations /North American; US - United States; VLE - Exposure Limit Value (Mexico); VN (Draft) - Vietnam (Draft); WHMIS - Workplace Hazardous Materials Information System (Canada).

**Other Information**

**Disclaimer:**

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