Material Safety Data Sheet

Material Name: MEK BLEND WASH **ID: 820032**

* * * Section 1 - Chemical Product and Company Identification * * *

Product Code: 1061793
Product Use: If this product is used in combination with other products, refer to the Material Safety Data Sheet for those products.
Synonyms: None.

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* * * Section 2 - Hazardous Identification * * *

EMERGENCY OVERVIEW
Appearance
Clear liquid with a mild odor.
Signal Word
DANGER!
Physical Hazards
Extremely flammable liquid and vapor. Vapor may cause flash fire.
Health Hazards
May irritate the respiratory tract (nose, throat, and lungs), and skin. May be severely irritating to the eyes. May be harmful if swallowed. May be harmful if absorbed through skin. May be harmful if inhaled. Contains material which may cause birth defects. Suspect cancer hazard. Contains material which may cause cancer. Risk of cancer depends on duration and level of exposure. Contains material which may cause heart, liver, kidney and central nervous system damage.
POTENTIAL HEALTH EFFECTS
Inhalation (Breathing)
High concentrations of vapor or mist may be harmful if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs). High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death.
Eyes
May be severely irritating to the eyes.
Skin
May cause irritation leading to dermatitis or blistering. 2-butoxyethanol, n-butyl alcohol, toluene, and methanol may be absorbed through the skin and cause harm as noted under **INHALATION (BREATHING)**.
Ingestion (Swallowing)
May be harmful if swallowed. May cause throat irritation, nausea, vomiting, and central nervous system effects as noted under **INHALATION (BREATHING)**. Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.
Medical Conditions Aggravated by Exposure
Individuals with pre-existing respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

Chronic

Prolonged or repeated inhalation may cause toxic effects as noted under **INHALATION (BREATHING)**. Prolonged or repeated eye contact may cause inflammation of the membrane lining the eyelids and covering the eyeball (conjunctivitis). Prolonged or repeated skin contact may cause drying, cracking, redness, itching, and/or swelling (dermatitis). Prolonged or repeated inhalation may cause heart, liver, central nervous system, and kidney damage. Prolonged or repeated exposure may have reproductive toxicity, teratogenic, or mutagenic effects.

Cancer Information

This product contains 2-butoxyethanol which may cause cancer. Risk of cancer depends on duration and level of exposure. For more information, see **SECTION 11: CARCINOGENICITY**.
Also see **SECTION 15: CALIFORNIA**.

Environmental Hazards

Based upon components, product is toxic to aquatic life.; Toxic to fish based upon components. See **SECTION 12: ECOLOGICAL INFORMATION**.

* * * Section 3 - Composition / Information on Ingredients * * *

CAS	Component	Percent
111-76-2	2-Butoxyethanol	30-75
78-93-3	Methyl Ethyl Ketone	10-45
64742-88-7	Solvent naphtha (petroleum), medium aliphatic	5-20
108-88-3	Toluene	0-20
1330-20-7	Xylenes (o-, m-. p- isomers)	0-20
123-86-4	n-Butyl acetate	0-10
67-64-1	Acetone	0-10
108-10-1	Methylisobutyl ketone	1-5
71-36-3	n-Butyl alcohol	0-5
71-23-8	N-Propyl alcohol	0-5
64742-95-6	Petroleum naphtha, light aromatic	0-5
141-78-6	Ethylacetate	0-5
64-17-5	Ethyl alcohol	0-5
67-56-1	Methyl alcohol	0-5
67-63-0	Isopropyl alcohol	0-5

* * * Section 4 - First Aid Measures * * *

Inhalation (Breathing)

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Oxygen should only be administered by qualified personnel. Someone should stay with victim. Get medical attention if breathing difficulty persists.

Eyes

If irritation or redness from exposure to vapor develops, move away from exposure into fresh air. Upon contact, immediately flush eyes with plenty of lukewarm water, holding eyelids apart, for 15 minutes. Get medical attention.

Skin

For skin contact, wash immediately with soap and water for at least 15 minutes while removing contaminated clothing. Wash contaminated clothing before reuse. Seek medical attention or advice.

Ingestion (Swallowing)

Do NOT induce vomiting. Immediately get medical attention. Call 1-800-468-1760 for additional information. If spontaneous vomiting occurs, keep head below hips to avoid breathing the product into the lungs. Never give anything by mouth to an unconscious person.

Notes to Physicians

Treat symptomatically and supportively. Increased sensitivity of the heart to Adrenaline (epinephrine) may be caused by overexposure to product. Administration of gastric lavage, if warranted, should be performed by qualified medical personnel. Treatment may vary with condition of victim and specifics of incident. Call 1-800-468-1760 for additional information.

* * * Section 5 - Fire Fighting Measures * * *

Hazardous Combustion Products

Decomposition and combustion materials may be toxic. Burning may produce carbon dioxide, carbon monoxide and unidentified organic compounds.

Conditions of Flammability

Heat, sparks, or flame.

Extinguishing Media

Carbon dioxide, alcohol-resistant foam, dry chemical, water spray, or water fog.

Protective Equipment For Firefighting

Firefighters should wear full-face, self contained breathing apparatus and impervious protective clothing. Firefighters should avoid inhaling any combustion products.

Fire Fighting Equipment/Instructions

Keep storage containers cool with water spray. A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

NFPA Ratings: Health: 2 **Fire:** 3 **Reactivity:** 0

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

Fire and Explosion Hazards

Vapor explosion hazard indoors, outdoors, or in sewers. Vapor may travel to ignition source and flashback. Vapors will spread along the ground and collect in low or confined areas. Run-off to sewer may create a fire or explosion hazard. Heated containers may rupture, explode, or be thrown into the air. "Empty" containers may retain residue and can be dangerous. Products are not sensitive to mechanical impact. Product may be sensitive to static discharge, which could result in fire or explosion.

* * * Section 6 - Accidental Release Measures * * *

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 regulatory reporting requirements associated with spills, leaks, or releases of this product. Also see **SECTION 15: REGULATORY INFORMATION**.

* * * Section 7 - Handling and Storage * * *

Handling Procedures

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 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, and shoes. Do not smoke when using this product.

Shipping and Storing

Keep container tightly closed when not in use and during transport. Store containers in a cool, dry place. Do not pressurize, cut, weld, braze, solder, drill, or grind containers. Keep containers away from heat, flame, sparks, static electricity, or other sources of ignition; containers may explode and cause injury or death. Empty product containers may retain product residue and can be dangerous. See **SECTION 14: TRANSPORTATION INFORMATION** for Packing Group information.

* * * Section 8 - Exposure Controls / Personal Protection * * *

Exposure Guidelines

Component Exposure Limits

Methyl ethyl ketone (78-93-3)

ACGIH: 200 ppm TWA
300 ppm STEL

OSHA Final: 200 ppm TWA; 590 mg/m3 TWA

OSHA Vacated: 200 ppm TWA; 590 mg/m3 TWA
300 ppm STEL; 885 mg/m3 STEL

NIOSH: 200 ppm TWA; 590 mg/m3 TWA
300 ppm STEL; 885 mg/m3 STEL

2-Butoxyethanol (111-76-2)

ACGIH: 20 ppm TWA

OSHA Final: 50 ppm TWA; 240 mg/m3 TWA
prevent or reduce skin absorption

OSHA Vacated: 25 ppm TWA; 120 mg/m3 TWA
Prevent or reduce skin absorption

NIOSH: 5 ppm TWA; 24 mg/m3 TWA
Potential for dermal absorption

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

ACGIH: 100 ppm TWA
150 ppm STEL

OSHA Final: 100 ppm TWA; 435 mg/m3 TWA

OSHA Vacated: 100 ppm TWA; 435 mg/m3 TWA
150 ppm STEL; 655 mg/m3 STEL

Toluene (108-88-3)

ACGIH: 20 ppm TWA

OSHA Final: 200 ppm TWA
300 ppm Ceiling

OSHA Vacated: 100 ppm TWA; 375 mg/m3 TWA
150 ppm STEL; 560 mg/m3 STEL

NIOSH: 100 ppm TWA; 375 mg/m3 TWA
150 ppm STEL; 560 mg/m3 STEL

Solvent naphtha (petroleum), medium aliphatic (64742-88-7)

ACGIH: 5 mg/m3 TWA (excluding metal working fluids, highly & severely refined, inhalable fraction, related to Oil mist, mineral)

OSHA Final: 5 mg/m3 TWA (related to Oil mist, mineral)

OSHA Vacated: 5 mg/m3 TWA (related to Oil mist, mineral)

NIOSH: 5 mg/m3 TWA (related to Oil mist, mineral)
10 mg/m3 STEL (related to Oil mist, mineral)

Acetone (67-64-1)

ACGIH: 500 ppm TWA
750 ppm STEL

OSHA Final: 1000 ppm TWA; 2400 mg/m3 TWA

OSHA Vacated: 750 ppm TWA; 1800 mg/m3 TWA
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

NIOSH: 250 ppm TWA; 590 mg/m3 TWA

n-Butyl acetate (123-86-4)

ACGIH: 150 ppm TWA
200 ppm STEL

OSHA Final: 150 ppm TWA; 710 mg/m3 TWA

OSHA Vacated: 150 ppm TWA; 710 mg/m3 TWA
200 ppm STEL; 950 mg/m3 STEL

NIOSH: 150 ppm TWA; 710 mg/m3 TWA
200 ppm STEL; 950 mg/m3 STEL

Methylisobutyl ketone (108-10-1)

ACGIH: 20 ppm TWA
75 ppm STEL
OSHA Final: 100 ppm TWA; 410 mg/m3 TWA
OSHA Vacated: 50 ppm TWA; 205 mg/m3 TWA
75 ppm STEL; 300 mg/m3 STEL
NIOSH: 50 ppm TWA; 205 mg/m3 TWA
75 ppm STEL; 300 mg/m3 STEL

Petroleum naphtha, light aromatic (64742-95-6)

ACGIH: 5 mg/m3 TWA (excluding metal working fluids, highly & severely refined, inhalable fraction, related to Oil mist, mineral)
OSHA Final: 5 mg/m3 TWA (related to Oil mist, mineral)
OSHA Vacated: 5 mg/m3 TWA (related to Oil mist, mineral)
NIOSH: 5 mg/m3 TWA (related to Oil mist, mineral)
10 mg/m3 STEL (related to Oil mist, mineral)

Methyl alcohol (67-56-1)

ACGIH: 200 ppm TWA
250 ppm STEL
Skin - potential significant contribution to overall exposure by the cutaneous route
OSHA Final: 200 ppm TWA; 260 mg/m3 TWA
OSHA Vacated: 200 ppm TWA; 260 mg/m3 TWA
250 ppm STEL; 325 mg/m3 STEL
Prevent or reduce skin absorption
NIOSH: 200 ppm TWA; 260 mg/m3 TWA
250 ppm STEL; 325 mg/m3 STEL
Potential for dermal absorption

Isopropyl alcohol (67-63-0)

ACGIH: 200 ppm TWA
400 ppm STEL
OSHA Final: 400 ppm TWA; 980 mg/m3 TWA
OSHA Vacated: 400 ppm TWA; 980 mg/m3 TWA
500 ppm STEL; 1225 mg/m3 STEL
NIOSH: 400 ppm TWA; 980 mg/m3 TWA
500 ppm STEL; 1225 mg/m3 STEL

Ethyl alcohol (64-17-5)

ACGIH: 1000 ppm STEL
OSHA Final: 1000 ppm TWA; 1900 mg/m3 TWA
OSHA Vacated: 1000 ppm TWA; 1900 mg/m3 TWA
NIOSH: 1000 ppm TWA; 1900 mg/m3 TWA

n-Propyl alcohol (71-23-8)

ACGIH: 100 ppm TWA
OSHA Final: 200 ppm TWA; 500 mg/m3 TWA
OSHA Vacated: 200 ppm TWA; 500 mg/m3 TWA
250 ppm STEL; 625 mg/m3 STEL
NIOSH: 200 ppm TWA; 500 mg/m3 TWA
250 ppm STEL; 625 mg/m3 STEL
Potential for dermal absorption

n-Butyl alcohol (71-36-3)

ACGIH: 20 ppm TWA
OSHA Final: 100 ppm TWA; 300 mg/m3 TWA
OSHA Vacated: 50 ppm Ceiling; 150 mg/m3 Ceiling
Prevent or reduce skin absorption
NIOSH: 50 ppm Ceiling; 150 mg/m3 Ceiling
Potential for dermal absorption

Ethylacetate (141-78-6)

ACGIH: 400 ppm TWA
OSHA Final: 400 ppm TWA; 1400 mg/m3 TWA
OSHA Vacated: 400 ppm TWA; 1400 mg/m3 TWA
NIOSH: 400 ppm TWA; 1400 mg/m3 TWA

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. Where explosive mixtures may be present, equipment safe for such locations should be used.

Personal Protective Equipment: Respiratory

Use NIOSH-certified, air-supplier respirators (self-contained breathing apparatus or air-line) where concentrations of methanol exceed applicable exposure limits. Use NIOSH-certified, full-face respirators with organic vapor cartridges respiratory protective equipment when concentrations of vapor or mist exceeds applicable exposure limits. Selection and use of respiratory protective equipment should be in accordance in the USA with OSHA General Industry Standard 29 CFR 1910.134; or in Canada with CSA Standard Z94.4.

Personal Protective Equipment: Eyes/Face

Wearing chemical goggles is recommended. Contact lenses may be worn with eye protection.

Personal Protective Equipment: Skin

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.

Personal Protective Equipment: Personal Hygiene

Use good personal hygiene. Wash thoroughly with soap and water after handling product and before eating, drinking, or using tobacco products. Clean affected clothing, shoes, and protective equipment before reuse. Discard affected clothing, shoes, and/or protective equipment if they cannot be thoroughly cleaned. Discard leather articles, such as shoes, saturated with this product.

Other Personal Protective Equipment

Where spills and splashes are likely, facilities storing or using this product should be equipped with an emergency eyewash and shower, both equipped with clean water, in the immediate work area.

* * * Section 9 - Physical & Chemical Properties * * *

Appearance/Odor :	Liquid, clear, mild odor.	**pH:**	Not applicable
Boiling Point:	131ºF (55°C) initial	**Melting Point:**	Not available
Solubility (H2O):	Slight	**Specific Gravity:**	0.83 (water = 1)
Density:	Not available	**Octanol/H2O Coeff.:**	Not available
Evaporation Rate:	4.3 (butyl acetate = 1)	**Molecular Weight:**	Not available
Odor Threshold:	Not available	**Auto Ignition:**	Not available
LFL:	1.5%	**Flash Point:**	<32ºF (<0ºC) Tag Closed Cup
UFL:	9.7%	**Vapor Density:**	Not available
Vapor Pressure:	45 mmHg	**Flammability Class:**	Flammable

* * * Section 10 - Chemical Stability & Reactivity Information * * *

Stability

Stable under normal temperatures and pressures. Avoid heat, sparks, or flame.

Incompatibility

Avoid acids, alkalies, oxidizing agents, reducing agents, reactive halogens, or reactive metals.

Reactivity

Polymerization is not known to occur under normal temperature and pressures. Not reactive with water.

Hazardous Decomposition Products

None under normal temperatures and pressures. See also **SECTION 5: HAZARDOUS COMBUSTION PRODUCTS**.

Conditions To Avoid

Keep away from heat, ignition sources and incompatible materials.

* * * Section 11 - Toxicological Information * * *

Component Analysis - LD50/LC50

Methyl ethyl ketone (78-93-3)
Inhalation LC50 Mouse 32 g/m3 4 h; Oral LD50 Rat 2737 mg/kg; Dermal LD50 Rabbit 6480 mg/kg

2-Butoxyethanol (111-76-2)
Inhalation LC50 Rat 2.21 mg/L 4 h; Inhalation LC50 Rat 450 ppm 4 h; Oral LD50 Rat 470 mg/kg; Dermal LD50 Rat 2270 mg/kg; Dermal LD50 Rabbit 220 mg/kg

Xylenes (o-, m-, p- isomers) (1330-20-7)
Inhalation LC50 Rat 5000 ppm 4 h; Inhalation LC50 Rat 47635 mg/L 4 h; Oral LD50 Rat 4300 mg/kg; Dermal LD50 Rabbit >1700 mg/kg

Toluene (108-88-3)
Inhalation LC50 Rat 12.5 mg/L 4 h; Inhalation LC50 Rat >26700 ppm 1 h; Oral LD50 Rat 636 mg/kg; Dermal LD50 Rabbit 8390 mg/kg; Dermal LD50 Rat 12124 mg/kg

Solvent naphtha (petroleum), medium aliphatic (64742-88-7)
Inhalation LC50 Rat >5.28 mg/L 4 h; Oral LD50 Rat >5000 mg/kg; Dermal LD50 Rabbit 3000 mg/kg

Acetone (67-64-1)
Oral LD50 Rat 5800 mg/kg

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

Methylisobutyl ketone (108-10-1)
Inhalation LC50 Rat 8.2 mg/L 4 h; Oral LD50 Rat 2080 mg/kg; Dermal LD50 Rabbit >16000 mg/kg

Petroleum naphtha, light aromatic (64742-95-6)
Inhalation LC50 Rat >5.2 mg/L 4 h; Inhalation LC50 Rat 3400 ppm 4 h; Oral LD50 Rat 8400 mg/kg; Dermal LD50 Rabbit >2000 mg/kg

Methyl alcohol (67-56-1)
Inhalation LC50 Rat 83.2 mg/L 4 h; Inhalation LC50 Rat 64000 ppm 4 h; Oral LD50 Rat 5628 mg/kg; Dermal LD50 Rabbit 15800 mg/kg

Isopropyl alcohol (67-63-0)
Inhalation LC50 Rat 72.6 mg/L 4 h; Oral LD50 Rat 4396 mg/kg; Dermal LD50 Rat 12800 mg/kg; Dermal LD50 Rabbit 12870 mg/kg

Ethyl alcohol (64-17-5)
Oral LD50 Rat 7060 mg/kg; Inhalation LC50 Rat 124.7 mg/L 4 h

n-Propyl alcohol (71-23-8)
Inhalation LC50 Rat >13548 ppm 4 h; Oral LD50 Rat 1870 mg/kg

n-Butyl alcohol (71-36-3)
Inhalation LC50 Rat >17.7 mg/L 4 h; Inhalation LC50 Rat 8000 ppm 4 h; Oral LD50 Rat 790 mg/kg; Dermal LD50 Rabbit 3400 mg/kg

Ethylacetate (141-78-6)
Oral LD50 Rat 5620 mg/kg; Dermal LD50 Rabbit >20 mL/kg; Dermal LD50 Rabbit >18000 mg/kg

Acute Effects

Harmful by inhalation, in contact with skin and if swallowed. R37/38 Irritating to respiratory system and skin. May be severely irritating to the eyes. High concentrations of vapor or mist may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects. May be absorbed through the skin in harmful amounts.

Repeated Dose Effects

Based on best current information, there is no known human sensitization associated with this product.
Ethyl alcohol has demonstrated human effects of reproductive toxicity. 2-butoxyethanol and ethyl benzene have demonstrated animal effects of reproductive toxicity. Toluene, xylene, isopropanol, and methanol have demonstrated experimental effects of reproductive toxicity.
Toluene, xylene, ethyl benzene, isopropanol, butanol, methanol have demonstrated experimental effects of mutagenicity. Ethanol has demonstrated animal effects of mutagenicity.
Based on best current information, the other components listed in **SECTION 2** are not mutagens.
Also see **SECTION 15: CALIFORNIA**.

Carcinogenicity
Component Carcinogenicity

2-Butoxyethanol (111-76-2)
ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
IARC: Monograph 88 [2006] (Group 3 (not classifiable))

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))

Toluene (108-88-3)
ACGIH: A4 - Not Classifiable as a Human Carcinogen
IARC: Monograph 71 [1999]; Monograph 47 [1989] (Group 3 (not classifiable))

Solvent naphtha (petroleum), medium aliphatic (64742-88-7)
ACGIH: A4 - Not Classifiable as a Human Carcinogen (highly & severely refined); A2 - Suspected Human Carcinogen (poorly & mildly refined, related to Oil mist, mineral)

Acetone (67-64-1)
ACGIH: A4 - Not Classifiable as a Human Carcinogen

Methylisobutyl ketone (108-10-1)
ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

Petroleum naphtha, light aromatic (64742-95-6)
ACGIH: A4 - Not Classifiable as a Human Carcinogen (highly & severely refined); A2 - Suspected Human Carcinogen (poorly & mildly refined, related to Oil mist, mineral)

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))

Ethyl alcohol (64-17-5)
ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
OSHA: Present (select carcinogen)
IARC: Monograph 100E [in preparation] (in alcoholic beverages); Monograph 96 [2010] (in alcoholic beverages) (Group 1 (carcinogenic to humans))

n-Propyl alcohol (71-23-8)
ACGIH: A4 - Not Classifiable as a Human Carcinogen

Target Organ Effects
Heart, liver, kidney, eye, and central nervous system.

Mutagenicity
Toluene, xylene, ethyl benzene, hexane, isopropanol, butanol, methanol have demonstrated experimental effects of mutagenicity. Ethanol has demonstrated animal effects of mutagenicity.

Based on best current information, the other components listed in **SECTION 2** are not mutagens

Teratogenicity
Toluene, ethyl acetate, ethanol have demonstrated human effects of reproductive toxicity. Methyl ethyl ketone, xylene, n-butyl acetate, ethyl benzene, isopropanol, butanol and methanol have demonstrated animal effects of teratogenicity.
Based on best current information, the other components listed in **SECTION 2** are not teratogens.

* * * Section 12 - Ecological Information * * *

Ecotoxicity
Based upon components, product is expected to be toxic to aquatic life.

Component Analysis - Ecotoxicity - Aquatic Toxicity

Methyl ethyl ketone (78-93-3)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Pimephales promelas	3130-3320 mg/L [flow-through]

2-Butoxyethanol (111-76-2)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Lepomis macrochirus	1490 mg/L [static]
96 Hr LC50 Lepomis macrochirus	2950 mg/L

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

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Pimephales promelas	13.4 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	2.661-4.093 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	13.5-17.3 mg/L
96 Hr LC50 Lepomis macrochirus	13.1-16.5 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	19 mg/L
96 Hr LC50 Lepomis macrochirus	7.711-9.591 mg/L [static]
96 Hr LC50 Pimephales promelas	23.53-29.97 mg/L [static]
96 Hr LC50 Cyprinus carpio	780 mg/L [semi-static]
96 Hr LC50 Cyprinus carpio	>780 mg/L
96 Hr LC50 Poecilia reticulata	30.26-40.75 mg/L [static]

Toluene (108-88-3)

Duration/Test/Species	Concentration/Conditions/Notes	
96 Hr LC50 Pimephales promelas	15.22-19.05 mg/L [flow-through]	1 day old
96 Hr LC50 Pimephales promelas	12.6 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	5.89-7.81 mg/L [flow-through]	
96 Hr LC50 Oncorhynchus mykiss	14.1-17.16 mg/L [static]	
96 Hr LC50 Oncorhynchus mykiss	5.8 mg/L [semi-static]	
96 Hr LC50 Lepomis macrochirus	11.0-15.0 mg/L [static]	
96 Hr LC50 Oryzias latipes	54 mg/L [static]	
96 Hr LC50 Poecilia reticulata	28.2 mg/L [semi-static]	
96 Hr LC50 Poecilia reticulata	50.87-70.34 mg/L [static]	
96 Hr EC50 Pseudokirchneriella subcapitata	>433 mg/L	
72 Hr EC50 Pseudokirchneriella subcapitata	12.5 mg/L [static]	

Solvent naphtha (petroleum), medium aliphatic (64742-88-7)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Pimephales promelas	800 mg/L [static]
96 Hr EC50 Pseudokirchneriella subcapitata	450 mg/L

Acetone (67-64-1)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Oncorhynchus mykiss	4.74 - 6.33 mL/L
96 Hr LC50 Pimephales promelas	6210 - 8120 mg/L [static]
96 Hr LC50 Lepomis macrochirus	8300 mg/L

n-Butyl acetate (123-86-4)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Pimephales promelas	17-19 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	100 mg/L [static]
96 Hr LC50 Leuciscus idus	62 mg/L [static]
72 Hr EC50 Desmodesmus subspicatus	674.7 mg/L

Methylisobutyl ketone (108-10-1)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Pimephales promelas	496-514 mg/L [flow-through]
96 Hr EC50 Pseudokirchneriella subcapitata	400 mg/L

Petroleum naphtha, light aromatic (64742-95-6)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Oncorhynchus mykiss	9.22 mg/L

Methyl alcohol (67-56-1)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Pimephales promelas	28200 mg/L [flow-through]
96 Hr LC50 Pimephales promelas	>100 mg/L [static]
96 Hr LC50 Oncorhynchus mykiss	19500 - 20700 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	18 - 20 mL/L [static]

96 Hr LC50 Lepomis macrochirus	13500 - 17600 mg/L [flow-through]

Isopropyl alcohol (67-63-0)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Pimephales promelas	9640 mg/L [flow-through]
96 Hr LC50 Pimephales promelas	11130 mg/L [static]
96 Hr LC50 Lepomis macrochirus	>1400000 µg/L
96 Hr EC50 Desmodesmus subspicatus	>1000 mg/L
72 Hr EC50 Desmodesmus subspicatus	>1000 mg/L

Ethyl alcohol (64-17-5)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Oncorhynchus mykiss	12.0 - 16.0 mL/L [static]
96 Hr LC50 Pimephales promelas	>100 mg/L [static]
96 Hr LC50 Pimephales promelas	13400 - 15100 mg/L [flow-through]

n-Propyl alcohol (71-23-8)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Pimephales promelas	4480 mg/L [flow-through]

n-Butyl alcohol (71-36-3)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Pimephales promelas	1730-1910 mg/L [static]
96 Hr LC50 Pimephales promelas	1740 mg/L [flow-through]
96 Hr LC50 Lepomis macrochirus	100000-500000 µg/L [static]
96 Hr LC50 Pimephales promelas	1910000 µg/L [static]
96 Hr EC50 Desmodesmus subspicatus	>500 mg/L
72 Hr EC50 Desmodesmus subspicatus	>500 mg/L

Ethylacetate (141-78-6)

Duration/Test/Species	Concentration/Conditions/Notes
96 Hr LC50 Pimephales promelas	220-250 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	484 mg/L [flow-through]
96 Hr LC50 Oncorhynchus mykiss	352-500 mg/L [semi-static]
48 Hr EC50 Desmodesmus subspicatus	3300 mg/L

Persistence/Degradability

No information available for this product.

Bioaccumulation/Accumulation

No information available for this product.

Mobility in Environmental Media

No information available for this product.

Other Adverse Effects

No information available for this product.

* * * Section 13 - Disposal Considerations * * *

Disposal Instructions

Dispose in accordance with federal, state, provincial, 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.

US EPA Waste Number & Descriptions

If discarded, this product is considered a RCRA ignitable waste, D001.

* * * Section 14 - Transportation Information * * *

Emergency Response Guide Number

128 Reference *.North American Emergency Response Guidebook*

DOT

Shipping Name: Flammable liquids, n.o.s. (Contains: Toluene, Xylenes (o-, m-, p- isomers), 2-Butoxyethanol, Methyl ethyl ketone)
UN/NA #: UN1993 **Hazard Class:** 3 **Packing Group:** II

Required Label(s): FLAMMABLE LIQUID

TDG

Shipping Name: Flammable liquid, n.o.s. (Contains: Toluene, Xylenes (o-, m-, p- isomers), 2-Butoxyethanol, Methyl ethyl ketone)
UN/NA #: UN1993 **Hazard Class:** 3 **Packing Group:** II
Required Label(s): FLAMMABLE LIQUID

* * * Section 15 - Regulatory Information * * *

Volatile Organic Compounds (As Regulated)

VOC: 0 to 100 WT%; 0 to 7.5 LB/US gal (0 to 900 g/l)
As per 40 CFR Part 51.100(s).

SARA Sections 311/312

This product poses the following health hazards as defined in 40 CFR Part 370 and is subject to the requirements of sections 311 and 312 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA):
Immediate (Acute) Health Hazard
Delayed (Chronic) Health Hazard
Fire Hazard

SARA 302/304

Component Analysis

This product does not contain any "extremely hazardous substances" listed pursuant to Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) Section 302 or Section 304 as identified in 40 CFR Part 355, Appendix A and B.

SARA Section 313

This product does contain "toxic" chemicals subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

Component Analysis

This product does contain a "toxic" chemical subject to the requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA) and 40 CFR Part 372.

SARA Section 313 Chemical	SARA Section 313 Reporting Threshold
Xylenes (o-, m-, p- isomers) (1330-20-7)	1.0 % de minimis concentration
Toluene (108-88-3)	1.0 % de minimis concentration
Methylisobutyl ketone (108-10-1)	1.0 % de minimis concentration
Methyl alcohol (67-56-1)	1.0 % de minimis concentration
Isopropyl alcohol (67-63-0)	1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)
n-Butyl alcohol (71-36-3)	1.0 % de minimis concentration

CERCLA

Component Analysis

This product contains the following "hazardous substance" listed under the Comprehensive Environmental Response, Compensation and Liability Act of 1980 (CERCLA) in 40 CFR Part 302, Table 302.4 with the following reportable quantities (RQ):

Methyl ethyl ketone (78-93-3)	5000 lb final RQ; 2270 kg final RQ
Xylenes (o-, m-, p- isomers) (1330-20-7)	100 lb final RQ; 45.4 kg final RQ
Toluene (108-88-3)	1000 lb final RQ; 454 kg final RQ
Acetone (67-64-1)	5000 lb final RQ; 2270 kg final RQ
n-Butyl acetate (123-86-4)	5000 lb final RQ; 2270 kg final RQ
Methylisobutyl ketone (108-10-1)	5000 lb final RQ; 2270 kg final RQ
Methyl alcohol (67-56-1)	5000 lb final RQ; 2270 kg final RQ
n-Butyl alcohol (71-36-3)	5000 lb final RQ; 2270 kg final RQ
Ethylacetate (141-78-6)	5000 lb final RQ; 2270 kg final RQ

TSCA

All the components of this product are listed on, or are automatically included as "naturally occurring chemical substances" on, or are exempted from the requirement to be listed on, the TSCA Inventory.

Component Analysis

Component	CAS #	TSCA
Methyl ethyl ketone	78-93-3	Yes
2-Butoxyethanol	111-76-2	Yes
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes
Toluene	108-88-3	Yes
Solvent naphtha (petroleum), medium aliphatic	64742-88-7	Yes
Acetone	67-64-1	Yes
n-Butyl acetate	123-86-4	Yes
Methylisobutyl ketone	108-10-1	Yes
Petroleum naphtha, light aromatic	64742-95-6	Yes
Methyl alcohol	67-56-1	Yes
Isopropyl alcohol	67-63-0	Yes
Ethyl alcohol	64-17-5	Yes
n-Propyl alcohol	71-23-8	Yes
n-Butyl alcohol	71-36-3	Yes
Ethylacetate	141-78-6	Yes

California

This product contains detectable amounts of toluene CAS 108-88-3, benzene CAS 71-43-2 and ethyl alcohol CAS 64-17-5. WARNING: These chemicals are known to the State of California to cause birth defects or other reproductive harm.

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

WARNING! This product contains a chemical known to the state of California to cause reproductive/developmental effects.

Component Analysis - State

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

Component	CAS	CA	MA	MN	NJ	PA	RI
Methyl ethyl ketone	78-93-3	Yes	Yes	Yes	Yes	Yes	Yes
2-Butoxyethanol	111-76-2	Yes	Yes	Yes	Yes	Yes	Yes
Xylenes (o-, m-, p- isomers)	1330-20-7	Yes	Yes	Yes	Yes	Yes	Yes
Toluene	108-88-3	Yes	Yes	Yes	Yes	Yes	Yes
Solvent naphtha (petroleum), medium aliphatic ([1]related to: Oil mist, mineral)	64742-88-7	Yes [1]	Yes [1]	Yes [1]	Yes	Yes [1]	Yes [1]
Acetone	67-64-1	Yes	Yes	Yes	Yes	Yes	Yes
n-Butyl acetate	123-86-4	Yes	Yes	Yes	Yes	Yes	Yes
Methylisobutyl ketone	108-10-1	Yes	Yes	Yes	Yes	Yes	Yes
Petroleum naphtha, light aromatic ([1]related to: Oil mist, mineral)	64742-95-6	Yes [1]	Yes [1]	Yes [1]	Yes [1]	Yes [1]	Yes [1]
Methyl alcohol	67-56-1	Yes	Yes	Yes	Yes	Yes	Yes
Isopropyl alcohol	67-63-0	Yes	Yes	Yes	Yes	Yes	Yes
Ethyl alcohol	64-17-5	Yes	Yes	Yes	Yes	Yes	Yes
n-Propyl alcohol	71-23-8	Yes	Yes	Yes	Yes	Yes	Yes
n-Butyl alcohol	71-36-3	Yes	Yes	Yes	Yes	Yes	Yes
Ethylacetate	141-78-6	Yes	Yes	Yes	Yes	Yes	Yes

Canadian Regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR.

Component Analysis

Component	CAS #	CAN
Methyl ethyl ketone	78-93-3	DSL
2-Butoxyethanol	111-76-2	DSL
Xylenes (o-, m-, p- isomers)	1330-20-7	DSL
Toluene	108-88-3	DSL
Solvent naphtha (petroleum), medium aliphatic	64742-88-7	DSL
Acetone	67-64-1	DSL
n-Butyl acetate	123-86-4	DSL
Methylisobutyl ketone	108-10-1	DSL
Petroleum naphtha, light aromatic	64742-95-6	DSL
Methyl alcohol	67-56-1	DSL
Isopropyl alcohol	67-63-0	DSL
Ethyl alcohol	64-17-5	DSL
n-Propyl alcohol	71-23-8	DSL
n-Butyl alcohol	71-36-3	DSL
Ethylacetate	141-78-6	DSL

Canadian WHMIS Information

Class B2 - Flammable Liquid Class D1B - Contains a component that is acutely lethal. Class D2A - Contains component that may cause cancer. Class D2B - Irritating to eyes and skin.

Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Methyl ethyl ketone (78-93-3) 1 %
2-Butoxyethanol (111-76-2) 1 %
Toluene (108-88-3) 1 %
Solvent naphtha (petroleum), medium aliphatic (64742-88-7) 1 % (related to Oil mist, mineral)
Acetone (67-64-1) 1 %
n-Butyl acetate (123-86-4) 1 %
Methylisobutyl ketone (108-10-1) 1 %
Petroleum naphtha, light aromatic (64742-95-6) 1 % (related to Oil mist, mineral)
Methyl alcohol (67-56-1) 1 %
Isopropyl alcohol (67-63-0) 1 %
Ethyl alcohol (64-17-5) 0.1 %
n-Propyl alcohol (71-23-8) 1 %
n-Butyl alcohol (71-36-3) 1 %
Ethylacetate (141-78-6) 1 %

Canadian Environmental Protection Act (CEPA)

All the components of this product are listed on, or are automatically included as "substance occurring in nature" on, or are exempted from the requirements to be listed on, the Canadian Domestic Substances List (DSL).

* * * Section 16 - Other Information * * *

Label/Other Information

Not available.

Revision Information

New MSDS

Disclaimer

User assumes all risks incident to the use of this (these) product(s). To the best of our knowledge, the information contained herein is accurate. However, Safety-Kleen assumes no liability whatsoever for the accuracy or completeness of the information contained herein. No representations or warranties, either express or implied, or merchantability, fitness for a particular purpose or of any other nature are made hereunder with respect to information or the product to which information refers. The data contained on this sheet apply to the product(s) as supplied to the user.

End of Sheet 820032