Material Safety Data Sheet

Ethyl Alcohol, Non UV, OmniSolv ® , For Residue Analysis, Gas Chromatography

1 . Product and company identification

Product name : Ethyl Alcohol, Non UV, OmniSolv ® , For Residue Analysis, Gas Chromatography

Product code : EX0278

Supplier : EMD Millipore Corp.
290 Concord Rd.
Billerica, MA 01821
1-978-715-1335 Technical Service
Monday - Friday: 8:00 - 6:00 PM EST

Synonym : Ethanol

Material uses : Other non-specified industry: Analytical reagent.

Validation date : 4/8/2012.

In case of emergency : 800-424-9300 CHEMTREC (USA)
613-996-6666 CANUTEC (Canada)
24 Hours/Day: 7 Days/Week

2 . Hazards identification

Emergency overview : DANGER!
POISON!

FLAMMABLE LIQUID AND VAPOR.
VAPOR MAY CAUSE FLASH FIRE.
MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED.
VAPOR HARMFUL.
CANNOT BE MADE NONPOISONOUS.
HARMFUL IF INHALED OR ABSORBED THROUGH SKIN.
CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION.
MAY CAUSE DAMAGE TO THE FOLLOWING ORGANS: BLOOD, KIDNEYS, REPRODUCTIVE SYSTEM, LIVER, GASTROINTESTINAL TRACT, RESPIRATORY TRACT, SKIN, CENTRAL NERVOUS SYSTEM, EYE, LENS OR CORNEA.

Keep away from heat, sparks and flame. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.

Physical state : Liquid.

OSHA/HCS status : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

Routes of entry : Dermal contact. Eye contact. Inhalation. Ingestion.

Potential acute health effects

Inhalation : Toxic by inhalation. Irritating to respiratory system.

Ingestion : May be fatal or cause blindness if swallowed.

Skin : Toxic in contact with skin. Irritating to skin.

Eyes : Irritating to eyes.

Potential chronic health effects

Carcinogenicity : IARC classification (1) for Ethanol, CAS# 64-17-5, is intended for use in alcoholic beverage use only. This product is NOT intended for this use.

Mutagenicity : No known significant effects or critical hazards.

Teratogenicity : No known significant effects or critical hazards.

Developmental effects : No known significant effects or critical hazards.

Fertility effects : No known significant effects or critical hazards.

Target organs : May cause damage to the following organs: blood, kidneys, the reproductive system, liver, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea.

Continued on next page

2 . Hazards identification

Medical conditions aggravated by over-exposure : Pre-existing disorders involving any target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (section 11)

3 . Composition/information on ingredients

Name	CAS number	% by weight
Ethyl Alcohol	64-17-5	94 - 96
Methanol	67-56-1	3 - 5
Ethyl Acetate	141-78-6	1 - 2
4-Methyl-2-Pentanone	108-10-1	1

4 . First aid measures

Eye contact : Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin contact : In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.

Inhalation : Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Ingestion : Call medical doctor or poison control center immediately. Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5 . Fire-fighting measures

Flammability of the product : Flammable liquid. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Runoff to sewer may create fire or explosion hazard.

Extinguishing media : Use dry chemical, CO_2, water spray (fog) or foam.

Not suitable : Do not use water jet.

Special exposure hazards : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

Hazardous thermal decomposition products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6 . Accidental release measures

Personal precautions : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

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6 . Accidental release measures

Methods for cleaning up

Spill : Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information and section 13 for waste disposal. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.

7 . Handling and storage

Handling : Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Use non-sparking tools. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.

Storage : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container, protected from direct sunlight. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage.

8 . Exposure controls/personal protection

Ingredient	Exposure limits
Ethyl Alcohol	**ACGIH TLV (United States, 1/2008).** TWA: 1000 ppm 8 hour(s). **OSHA PEL 1989 (United States, 3/1989).** TWA: 1900 mg/m³ 8 hour(s). **NIOSH REL (United States, 6/2008).** TWA: 1000 ppm 10 hour(s).
Methanol	**ACGIH TLV (United States, 1/2008). Absorbed through skin.** TWA: 200 ppm 8 hour(s). TWA: 262 mg/m³ 8 hour(s). STEL: 250 ppm 15 minute(s). STEL: 328 mg/m³ 15 minute(s). **OSHA PEL 1989 (United States, 3/1989). Absorbed through skin.** TWA: 200 ppm 8 hour(s). TWA: 260 mg/m³ 8 hour(s). STEL: 250 ppm 15 minute(s). STEL: 325 mg/m³ 15 minute(s). **NIOSH REL (United States, 6/2008). Absorbed through skin.** TWA: 200 ppm 10 hour(s). TWA: 260 mg/m³ 10 hour(s). STEL: 250 ppm 15 minute(s). STEL: 325 mg/m³ 15 minute(s). **OSHA PEL (United States, 11/2006).** TWA: 200 ppm 8 hour(s). TWA: 260 mg/m³ 8 hour(s).

Continued on next page

8 . Exposure controls/personal protection

Ethyl Acetate	**ACGIH TLV (United States, 2/2010).** TWA: 400 ppm 8 hour(s). TWA: 1440 mg/m³ 8 hour(s). **OSHA PEL 1989 (United States, 3/1989).** TWA: 400 ppm 8 hour(s). TWA: 1400 mg/m³ 8 hour(s). **NIOSH REL (United States, 6/2009).** TWA: 400 ppm 10 hour(s). TWA: 1400 mg/m³ 10 hour(s). **OSHA PEL (United States, 11/2006).** TWA: 400 ppm 8 hour(s). TWA: 1400 mg/m³ 8 hour(s).
4-Methyl-2-Pentanone	**ACGIH TLV (United States, 2/2010).** TWA: 20 ppm 8 hour(s). STEL: 75 ppm 15 minute(s). **OSHA PEL 1989 (United States, 3/1989).** TWA: 50 ppm 8 hour(s). TWA: 205 mg/m³ 8 hour(s). STEL: 75 ppm 15 minute(s). STEL: 300 mg/m³ 15 minute(s). **NIOSH REL (United States, 6/2009).** TWA: 50 ppm 10 hour(s). TWA: 205 mg/m³ 10 hour(s). STEL: 75 ppm 15 minute(s). STEL: 300 mg/m³ 15 minute(s). **OSHA PEL (United States, 11/2006).** TWA: 100 ppm 8 hour(s). TWA: 410 mg/m³ 8 hour(s).

Consult local authorities for acceptable exposure limits.

Engineering measures : Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protection

Respiratory : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Recommended: neoprene

Eyes : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts. Recommended: splash goggles

Skin : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Recommended: lab coat

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8 . Exposure controls/personal protection

Environmental exposure controls : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9 . Physical and chemical properties

Physical state : Liquid.

Flash point : Closed cup: 10.556°C (51°F)

Flammable limits : Lower: 3.3%
Upper: 19%

Color : Colorless.

Odor : Characteristic.

pH : Not available.

Boiling/condensation point : Not available.

Melting/freezing point : Not available.

Relative density : Not available.

Vapor pressure : Not available.

Vapor density : Not available.

Odor threshold : Not available.

Evaporation rate : Not available.

VOC : 101.5 % (w/w)

Solubility : Soluble in the following materials: water

10 . Stability and reactivity

Chemical stability : The product is stable.

Possibility of hazardous reactions : Under normal conditions of storage and use, hazardous reactions will not occur.

Hazardous polymerization : Under normal conditions of storage and use, hazardous polymerization will not occur.

Conditions to avoid : Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

Materials to avoid : Highly reactive or incompatible with the following materials: oxidizing materials and acids .
Reactive or incompatible with the following materials: reducing materials, metals and alkalis.

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

Conditions of reactivity : Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials.
Flammable in the presence of the following materials or conditions: combustible materials.

Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge, heat, shocks and mechanical impacts and oxidizing materials.

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11 . Toxicological information

Acute toxicity

Product/ingredient name	Test	Route	Species	Result
Methanol	LD50	Dermal	Rabbit	15800 mg/kg
	LD50	Oral	Rabbit	14200 mg/kg
	LD50	Oral	Rat	5628 mg/kg
	LDLo	Oral	Human	143 mg/kg
	TDLo	Oral	Rat	3 g/kg
	LC50	Inhalation Vapor	Rat	64000 ppm
	LC50	Inhalation Gas.	Rat	64000 ppm
Ethyl Alcohol	LD50	Oral	Rabbit	6300 mg/kg
	LDLo	Dermal	Rabbit	20000 mg/kg
	TDLo	Oral	Rat	1500 mg/kg
	LC50	Inhalation Vapor	Rat	124700 mg/m3
	LC50	Inhalation Vapor	Rat	5900 mg/m3
	LC50	Inhalation Vapor	Rat	20000 ppm
Ethyl Acetate	LD50	Dermal	Rabbit	>20 mL/kg
	LD50	Oral	Rat	5620 mg/kg
	LD50	Oral	Rabbit	4935 mg/kg
	LD50	Oral	Mouse	4100 mg/kg
	LDLo	Subcutaneous	Rat	5 g/kg
	LC50	Inhalation Gas.	Rat	>6000 ppm
	LC50	Inhalation Gas.	Rat	1600 ppm
4-Methyl-2-Pentanone	LD	Dermal	Rabbit	>3 g/kg
	LD50	Intraperitoneal	Rat	400 mg/kg
	LD50	Oral	Rat	4600 mg/kg
	LD50	Oral	Rat	2080 mg/kg
	LD50	Oral	Mouse	1900 mg/kg
	LD50	Oral	Guinea pig	1600 mg/kg
	TDLo	Oral	Rat	500 mg/kg

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Observation
Methanol	Eyes - Moderate irritant	Rabbit	-	-
	Skin - Moderate irritant	Rabbit	-	-
Ethyl Alcohol	Eyes - Mild irritant	Rabbit	-	-
	Eyes - Moderate irritant	Rabbit	-	-
	Eyes - Severe irritant	Rabbit	-	-
	Skin - Mild irritant	Rabbit	-	-
	Skin - Moderate irritant	Rabbit	-	-
4-Methyl-2-Pentanone	Eyes - Moderate irritant	Rabbit	-	-
	Eyes - Severe irritant	Rabbit	-	-
	Skin - Mild irritant	Rabbit	-	-

Carcinogenicity

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11 . Toxicological information

Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
Ethyl Alcohol	A3	1	-	-	-	-
Ethyl Acetate	A4	-	-	-	-	-
4-Methyl-2-Pentanone	A3	-	-	-	-	-

IARC classification (1) for Ethanol, CAS# 64-17-5, is intended for use in alcoholic beverage use only. This product is NOT intended for this use.

Mutagenicity

No known significant effects or critical hazards.

Teratogenicity

No known significant effects or critical hazards.

12 . Ecological information

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Methanol	Acute EC50 22200 to 23400 mg/L Fresh water	Daphnia - Water flea - Daphnia obtusa - Neonate - <24 hours	48 hours
	Acute EC50 16000 mg/L	Fish	48 hours
	Acute EC50 13200 mg/L	Fish	48 hours
	Acute EC50 >10000 mg/L	Daphnia	48 hours
	Acute EC50 24500000 to 29350000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - LARVAE - <24 hours	48 hours
	Acute EC50 13000000 to 13400000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	96 hours
	Acute EC50 12700000 to 13700000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	Acute EC50 >10000000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - 6 to 24 hours	48 hours
	Acute LC50 15400 mg/L	Fish	96 hours
	Acute LC50 3289 to 4395 mg/L Fresh water	Daphnia - Water flea - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 >100 mg/L	Daphnia	96 hours
	Acute LC50 >100 mg/L	Fish	96 hours
	Acute LC50 19 to 20 ml/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - 0.8 g	96 hours
	Acute LC50 28200000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 0.12 g	96 hours
	Acute LC50 >28000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 cm	96 hours
	Acute LC50 28000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 to 10 cm	96 hours
	Acute LC50 20100000 to 20700000 ug/L Fresh	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss -	96 hours

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12 . Ecological information

	water	Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) - 0.813 g	
	Acute LC50 15400000 to 17600000 ug/L Fresh water	Fish - Bluegill - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling) - 3.07 g	96 hours
	Acute LC50 10000000 to 33000000 ug/L Marine water	Fish - Hooknose - Agonus cataphractus - Adult	96 hours
	Acute LC50 2500000 ug/L Marine water	Crustaceans - Common shrimp, sand shrimp - Crangon crangon - Adult	48 hours
	Acute LC50 >100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours
Ethyl Alcohol	Acute EC50 2 mg/L	Daphnia	48 hours
	Acute EC50 2000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna	48 hours
	Acute LC50 13000 mg/L	Fish	96 hours
	Acute LC50 >100 mg/L	Daphnia	96 hours
	Acute LC50 >100 mg/L	Fish	96 hours
	Acute LC50 14200000 to 15100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 30 days - 19.4 mm - 0.099 g	96 hours
	Acute LC50 10000000 to 11500000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 cm	96 hours
	Acute LC50 3715000 to 4432000 ug/L Fresh water	Daphnia - Water flea - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 >100000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 0.2 to 0.5 g	96 hours
	Acute LC50 42000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss	4 days
	Acute LC50 25500 ug/L Marine water	Crustaceans - Brine shrimp - Artemia franchiscana - LARVAE	48 hours
Ethyl Acetate	Acute EC50 5600 mg/L	Algae	48 hours
	Acute EC50 3300 mg/L	Algae	48 hours
	Acute EC50 260 mg/L	Fish	48 hours
	Acute LC50 484 mg/L	Fish	96 hours
	Acute LC50 425.3 mg/L	Fish	96 hours
	Acute LC50 230 mg/L	Fish	96 hours
	Acute LC50 1600000 ug/L Fresh water	Crustaceans - Aquatic sowbug - Asellus aquaticus	48 hours
	Acute LC50 819000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - <1 days	48 hours
	Acute LC50 786000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - <1 days	48 hours
	Acute LC50 778000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - <1 days	48 hours

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12 . Ecological information

	Acute LC50 698000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - <1 days	48 hours
	Acute LC50 660000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - <1 days	48 hours
	Acute LC50 560000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - <1 days	48 hours
	Acute LC50 484000 to 602000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 425300 to 500000 ug/L Fresh water	Fish - Rainbow trout,donaldson trout - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 295000 ug/L Fresh water	Daphnia - Water flea - Daphnia pulex - <1 days	48 hours
	Acute LC50 230000 ug/L Fresh water	Daphnia - Water flea - Daphnia pulex - <1 days	48 hours
	Acute LC50 230000 to 250000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 29 to 30 days - 18.2 mm - 0.106 g	96 hours
	Acute LC50 212500 to 225420 ug/L Fresh water	Fish - Indian catfish - Heteropneustes fossilis - 14. 16 cm - 25.54 g	96 hours
	Acute LC50 175000 ug/L Fresh water	Daphnia - Water flea - Daphnia cucullata - 11 days	48 hours
	Acute LC50 154000 ug/L Fresh water	Daphnia - Water flea - Daphnia cucullata - 11 days	48 hours
4-Methyl-2-Pentanone	Acute EC50 2000 mg/L	Algae	48 hours
	Acute EC50 980 mg/L	Algae	48 hours
	Acute LC50 540 mg/L	Fish	96 hours
	Acute LC50 537 mg/L	Fish	96 hours
	Acute LC50 505 mg/L	Fish	96 hours
	Acute LC50 540000 to 593000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 31 days - 20 mm - 0.125 g	96 hours
	Acute LC50 537000 to 557000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - Juvenile (Fledgling, Hatchling, Weanling) - 28 to 34 days - 0.12 g	96 hours
	Acute LC50 505000 to 514000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 29 days - 21 mm - 0.141 g	96 hours

Environmental effects : No known significant effects or critical hazards.

Other adverse effects : No known significant effects or critical hazards.

13 . Disposal considerations

The information presented only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations. Disposal should be in accordance with applicable regional, national and local laws and regulations.

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14 . Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT Classification	UN1170	ETHYL ALCOHOL	3	II		-

PG* : Packing group

15 . Regulatory information

United States

HCS Classification : Flammable liquid
Highly toxic material
Irritating material
Target organ effects

U.S. Federal regulations : **TSCA 4(a) final test rules**: 4-Methyl-2-Pentanone
TSCA 8(a) IUR: Partial exemption
United States inventory (TSCA 8b): All components are listed or exempted.

TSCA (Toxic Substance Control Act): This product is listed on the TSCA Inventory.

SARA 302/304/311/312 extremely hazardous substances: No products were found.
SARA 302/304 emergency planning and notification: No products were found.
SARA 302/304/311/312 hazardous chemicals: Ethyl Acetate ; 4-Methyl-2-Pentanone ; Ethyl Alcohol; Methanol
SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Ethyl Acetate : Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; 4-Methyl-2-Pentanone : Fire hazard, reactive, Immediate (acute) health hazard, Delayed (chronic) health hazard; Ethyl Alcohol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Methanol: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: No products were found.

Clean Air Act (CAA) 112 accidental release prevention: No products were found.

Clean Air Act (CAA) 112 regulated flammable substances: No products were found.

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

DEA List I Chemicals (Precursor Chemicals) : Not listed

DEA List II Chemicals (Essential Chemicals) : Listed

SARA 313

		Product name	CAS number	Concentration
Form R - Reporting requirements	:	Methanol	67-56-1	3 - 5
		4-Methyl-2-Pentanone	108-10-1	1
Supplier notification	:	Methanol	67-56-1	3 - 5
		4-Methyl-2-Pentanone	108-10-1	1

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

Connecticut Carcinogen Reporting : None of the components are listed.

Connecticut Hazardous Material Survey : None of the components are listed.

Florida substances : None of the components are listed.

Illinois Chemical Safety Act : None of the components are listed.

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15 . Regulatory information

Illinois Toxic Substances Disclosure to Employee Act : None of the components are listed.

Louisiana Spill : None of the components are listed.

Louisiana Reporting : None of the components are listed.

Massachusetts Spill : None of the components are listed.

Massachusetts Substances : The following components are listed: Methanol; ETHYL ALCOHOL; Ethyl Acetate ; 4-Methyl-2-Pentanone

Minnesota Hazardous Substances : None of the components are listed.

Michigan Critical Material : None of the components are listed.

New Jersey Toxic Catastrophe Prevention Act : None of the components are listed.

New Jersey Spill : None of the components are listed.

New Jersey Hazardous Substances : The following components are listed: Methanol; Ethyl Alcohol; Ethyl Acetate ; 4-Methyl-2-Pentanone

New York Toxic Chemical Release Reporting : None of the components are listed.

New York Acutely Hazardous Substances : The following components are listed: Methanol; Ethyl acetate; Hexone

Pennsylvania RTK Hazardous Substances : The following components are listed: Methanol; DENATURED ALCOHOL; Ethyl Acetate ; 4-Methyl-2-Pentanone

Rhode Island Hazardous Substances : None of the components are listed.

Canada

WHMIS (Canada) : Class B-2: Flammable liquid
Class D-1B: Material causing immediate and serious toxic effects (Toxic).
Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

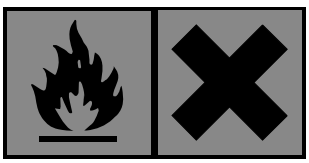
Canadian lists : **CEPA Toxic substances**: None of the components are listed.
Canadian ARET: None of the components are listed.
Canadian NPRI: The following components are listed: Methanol; Ethyl alcohol; Ethyl acetate; Methyl isobutyl ketone
Alberta Designated Substances: None of the components are listed.
Ontario Designated Substances: None of the components are listed.
Quebec Designated Substances: None of the components are listed.

CEPA DSL / CEPA NDSL : All components are listed or exempted.

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

EU regulations

Hazard symbol or symbols :



Risk phrases : R11- Highly flammable.
R36/38- Irritating to eyes and skin.

International regulations

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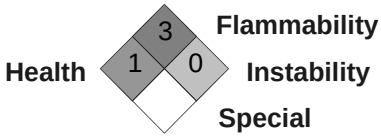
15 . Regulatory information

International lists : **Australia inventory (AICS)**: All components are listed or exempted.
China inventory (IECSC): All components are listed or exempted.
Japan inventory: All components are listed or exempted.
Korea inventory: All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.

16 . Other information

National Fire Protection Association (U.S.A.) :



Other special considerations : Also contains approximately 1% Aliphatic Hydrocarbons.

Notice to reader

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