

MATERIAL SAFETY DATA SHEET

Ethyl Alcohol, Denatured Anhydrous, Govt. Form III

SECTION 1 . Product and Company Identification

Product Name and Synonym: Ethyl Alcohol, Denatured Anhydrous, Govt. Form III

Product Code: E2438

Material Uses:

Manufacturer: Science Stuff
1104 Newport Ave

Austin, TX 78753
(512) 837-6020

Entry Date : 6/4/2013

Print Date: 6/4/2013

24 Hour Emergency Assistance : Chemtrec 800-424-9300
Canutec 613-996-6666

Health:	3			
Flammability:	3			
Reactivity:	0			
Hazard Rating:				
Least	Slight	Moderate	High	Extreme
0	1	2	3	4
NA=Not Applicable		NE=Not Established		

SECTION 2 HAZARD IDENTIFICATION

Keep away from heat and ignition sources. Harmful if swallowed. Avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

Physical state: Liquid.

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

Emergency overview:

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

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.
Keep container tightly closed and sealed until ready for use. Use only with adequate ventilation. Wash thoroughly after handling.

Potential acute health effects:

Eyes: Severely irritating to eyes. Risk of serious damage to eyes.
Skin: Toxic in contact with skin. Irritating to skin
Inhalation: Toxic by inhalation. Irritating to respiratory system.
Ingestion: Very toxic if swallowed.

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Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: No known significant effects or critical hazards.
Teratogenicity/ Reproductive toxicity: 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: Contains material which causes damage to the following organs: eye, lens or cornea.

Contains material which may cause damage to the following organs: blood, kidneys, the reproductive system, liver, gastrointestinal tract, upper respiratory tract, skin, central nervous system (CNS)

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

SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input type="checkbox"/>	Ethyl Acetate, 99%	CAS# 141-78-6	1%	V/V	TXDS: orl-rat LD ₅₀ : 11 g/Kg
<input type="checkbox"/>	Ethyl Alcohol (Ethanol, Absolute)	CAS# 64-17-5	92%	V/V	OSHA TWA 1000 ppm (1900 mg/mf)
<input checked="" type="checkbox"/>	Methanol (Methyl Alcohol)	CAS# 67-56-1	4%	V/V	OSHA TWA 200 ppm, ACGIH STEL 250 ppm
<input checked="" type="checkbox"/>	Methyl Isobutyl Ketone (4-Methyl-2-pentanone)	CAS# 108-10-1	2%	V/V	
<input type="checkbox"/>	n-Heptane	CAS# 142-82-5	1%	V/V	ACGIH TWA 400 ppm, STEL 500 ppm OSHA PEL 500 ppm

SECTION 4 FIRST AID MEASURES

Keep away from heat and ignition sources. Harmful if swallowed. Avoid breathing vapors. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: CALL A PHYSICIAN. SKIN: Remove contaminated clothing. Wash exposed area with soap and water.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: If swallowed, induce vomiting immediately after giving two glasses of water. Never give anything by mouth to an unconscious person.

SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type:	Water spray, dry chemical, carbon dioxide, or alcohol foam.
Fire / Explosion Hazards:	Vapor may travel considerable distance to source of ignition and flash back.
Fire Fighting Procedure:	Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Ventilate area of leak or spill.
Wear protective equipment. Clean up in a manner that doesn't

disperse dust.

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

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).

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.

SECTION 7 HANDLING AND STORAGE

Rubber gloves, NIOSH/MSHA-Approved respirator.
Mechanical exhaust required. Do not get in eyes, on skin, or on clothing.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: Organic Vapor Cartridge

Ventilation

Local Exhaust

Mechanical

Protective Gloves: NIOSH Approved Gloves

Eye Protection: Splash Goggles

Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

Ethanol

ACGIH TLV (United States, 1/2005). Notes: 1996 Adoption Refers to Appendix A—Carcinogens.

TWA: 1880 mg/m³ 8 hour(s) Form: All forms

TWA: 1000 ppm 8 hour(s) Form: All forms

NIOSH REL (United States, 12/ 2001).

TWA: 1900 mg/m³ 10 hour(s) Form: All forms

TWA: 1000 ppm 10 hour(s) Form: All forms

OSHA PEL (United States, 8/1997).

TWA: 1900 mg/m³ 8 hour(s) Form: All forms

TWA: 1000 ppm 8 hour(s) Form: All forms

OSHA PEL 1989 (United States, 3/1989).

TWA: 1900 mg/m³ 8 hour(s) Form: All forms

TWA: 1000 ppm 8 hour(s) Form: All forms

Ethyl Acetate

ACGIH TLV (United States, 1/2008)
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: 1440 mg/m³ 8 hour(s)
NIOSH REL (United States, 6/2008)
TWA: 400 ppm 8 hour(s)
TWA: 1440 mg/m³ 8 hour(s)
OSHA PEL (United States, 11/2006)
TWA: 400 ppm 8 hour(s)
TWA: 1440 mg/m³ 8 hour(s)

Methanol

ACGIH (United States, 1994). Skin
TWA: 262 mg/m³
STEL: 328 mg/m³
OSHA (United States, 1989). Skin
TWA: 260 mg/m³
STEL: 325 mg/m³
NIOSH REL (United States, 12/2001). Skin
STEL: 325 mg/m³ 15 minute(s). Form: All forms
STEL: 250 ppm 15 minute(s). Form: All forms
TWA: 260 mg/m³ 10 hour(s) Form: All forms
TWA: 200 ppm 10 hour(s) Form: All forms
OSHA PEL (United States, 8/1997).
TWA: 260 mg/m³ 8 hour(s) Form: All forms
TWA: 200 ppm 8 hour(s) Form: All forms
OSHA PEL 1989 (United States, 3/1989).
STEL: 325 mg/m³ 15 minute(s). Form: All forms
STEL: 250 ppm 15 minute(s). Form: All forms
TWA: 260 mg/m³ 8 hour(s) Form: All forms
TWA: 200 ppm 8 hour(s) Form: All forms
ACGIH TLV (United States, 1/2005). Skin notes: Substance for which there is a Biological Exposure Index or Indices
STEL: 325 mg/m³ 15 minute(s). Form: All forms
STEL: 250 ppm 15 minute(s). Form: All forms
TWA: 260 mg/m³ 8 hour(s) Form: All forms
TWA: 200 ppm 8 hour(s) Form: All forms

4-Methyl-2-Pentanone

ACGIH TLV (United States, 1/2008)
TWA: 50 ppm 8 hour(s)
TWA: 205 mg/m³ 8 hour(s)
STEL: 75 ppm 15 minute(s)
STEL: 307 mg/m³ 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, 6/2008)
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)

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TWA: 100 ppm 8 hour(s)
TWA: 410 mg/m³ 8 hour(s)

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

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, gases or dusts.

Recommended: splash goggles

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

Body recommended: lab coat

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

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.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Melting Point:	Information not available	Percent Volatile by Volume:	>99
Boiling Point:	78° C	Evaporation Rate	2
Vapor Pressure:	40 mm Hg	Evaporation Standard	Butylacetate =1
Vapor Density:	1.59	Auto Ignition Temp	>404°C
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	3.53%
Appearance /Odors:	Clear Liquid, Alcohol odor	Upper Flamm. Limit in Air	21.2%
Flash Point:	13° C		
Specific Gravity:	0.789 - 0.830		

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SECTION 10 STABILITY AND REACTIVITY INFORMATION

Stability:	Stable
Conditions to Avoid:	Avoid contact with heat, sparks, flames, or other sources of ignition.
Materials to Avoid:	Oxidizing materials
Hazardous Decomposition Products:	Carbon dioxide, carbon monoxide.
Hazardous polymerization:	Will Not Occur
Conditions to Avoid:	None known

SECTION 11 Toxicological Information

Toxicity data- United States- Product/ ingredient name:

Ethyl Acetate

LD50	>20 mL/kg	Dermal	Rabbit
LD50	4100 mg/kg	Oral	Mouse
LD50	5620 mg/kg	Oral	Rat
LD50	4935 mg/kg	Oral	Rabbit
LDLo	5 g/kg	Subcutaneous	Rat
LC50	1600 ppm	Inhalation Gas	Rat
LC50	>6000 ppm	Inhalation Gas	Rat

Methanol

LD50	5628 mg/kg	Oral	Rat
LD50	14200 mg/kg	Oral	Rabbit
LD50	7300 mg/kg	Oral	Mouse
LD50	15800 mg/kg	Dermal	Rabbit
LDLo	143 mg/kg	Oral	Human
LDLo	428 mg/kg	Oral	Human
LDLo	6422 mg/kg	Oral	Man
LDLo	393 mg/kg	Dermal	Monkey
LD50	64000 ppm (4 hours)	Inhalation	Rat

Ethanol

LD50	11 mg/kg	Intra-arterial	Rat
LD50	3600 mg/kg	Intraperitoneal	Rat
LD50	1440 mg/kg	Intravenous	Rat
LD50	7060 mg/kg	Oral	Rat
LD50	6300 mg/kg	Oral	Rabbit
LD50	3450 mg/kg	Oral	Mouse
LD50	7 g/kg	Oral	Rat
LDLo	20 g/kg	Dermal	Rabbit
LDLo	5500 mg/kg	Oral	Dog
LDLo	1400 mg/kg	Oral	Human
TDLo	3000 mg/kg	Intraperitoneal	Rat
TDLo	2700 mg/kg	Intraperitoneal	Rat
TDLo	2000 mg/kg	Intraperitoneal	Rat
TDLo	1.25 mg/kg	Intraperitoneal	Rat
TDLo	1000 mg/kg	Intraperitoneal	Rat
TDLo	106 mg/kg	Intracerebral	Rat
TDLo	500 mg/kg	Intraperitoneal	Rat
TDLo	1.5 g/kg	Intraperitoneal	Rat
TDLo	0.5 g/kg	Intravenous	Rat
TDLo	5 mL/kg	Oral	Rat
TDLo	4 mL/kg	Oral	Rat
TDLo	0.5 g/kg	Oral	Rat
TDLo	8000 mg/kg	Oral	Rat
TDLo	1 g/kg	Intraperitoneal	Rat
TDLo	2.45 g/kg	Intraperitoneal	Rat
TDLo	6000 mg/kg	Oral	Rat
TDLo	5250 mg/kg	Oral	Rat
TDLo	2.5 g/kg	Oral	Rat
TDLo	5000 mg/kg	Oral	Rat

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TDL _o	4800 mg/kg	Oral	Rat
TDL _o	4300 mg/kg	Oral	Rat
TDL _o	10 mL/kg	Oral	Rat
TDL _o	0.5 g/kg	Intraperitoneal	Rat
TDL _o	2 g/kg	Intraperitoneal	Rat
TDL _o	5 g/kg	Oral	Rat
TDL _o	5.25 g/kg	Oral	Rat
TDL _o	3 g/kg	Oral	Rat
TDL _o	1600 mg/kg	Oral	Rat
TDL _o	0.4 g/kg	Oral	Rat
TDL _o	1500 mg/kg	Oral	Rat
TDL _o	0.25 g/kg	Intraperitoneal	Rat
TDL _o	0.72 g/kg	Oral	Rat
TDL _o	6 g/kg	Oral	Rat
TDL _o	6.4 g/kg	Oral	Rat
TDL _o	2.4 mg/kg	Intraperitoneal	Rat
TDL _o	3500 mg/kg	Intraperitoneal	Rat
TDL _o	363.6 ug/kg	Intracerebral	Rat
TDL _o	3 g/kg	Unreported	Rat
LC ₅₀	20000 ppm	Inhalation Gas	Rat

4-Methyl-2-Pentanone

LD	>3 g/kg	Dermal	Rabbit
LD ₅₀	400 mg/kg	Intraperitoneal	Rat
LD ₅₀	1900 mg/kg	Oral	Mouse
LD ₅₀	1600 mg/kg	Oral	Guinea pig
LD ₅₀	2080 mg/kg	Oral	Rat
LD ₅₀	4600 mg/kg	Oral	Rat
TDL _o	500 mg/kg	Oral	Rat

Carcinogenic effects: No known significant effects or critical hazards.

Mutagenic effects: No known significant effects or critical hazards.

Teratogenicity/Reproductive toxicity: No known significant effects or critical hazards.

SECTION 12	Ecological Information
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Aquatic toxicity

Product/ ingredient name

Methanol

Acute EC₅₀ 22200 to 23400 mg/L Fresh water Daphnia – Water flea – Daphnia obtuse – 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 >10000000 ug/L Fresh water Daphnia – Water flea – Daphnia magna – 6 to 24 hours 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 LC₅₀ 19 to 20 ml/L Fresh water Fish – Rainbow trout, Donaldson trout – Oncorhynchus mykiss – 0.8 g 96 hours
 Acute LC₅₀ 15400 mg/L Fish 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
 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 to 10 cm 96 hours
 Acute LC₅₀ >28000000 ug/L Marine water Fish – Bleak – Alburnus alburnus – 8 cm 96 hours
 Acute LC₅₀ 3289 to 4395 mg/L Fresh water Daphnia – Water flea – Daphnia magna – Neonate - <24 hours 48 hours
 Acute LC₅₀ 20100000 to 20700000 ug/L Fresh Water Fish – Rainbow trout, Donaldson trout – Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling) – 0.813 g 96 hours
 Acute LC₅₀ 15400000 to 17600000 ug/L Fresh water Fish – Bluegill – Lepomis

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macrochirus - Juvenile (Fledgling, Hatchling, Weanling) – 3.07 g 96 hours
Acute LC50 >100 mg/L Fish 96 hours
Acute LC50 >100 mg/L Daphnia 96 hours
Acute LC50 10000000 to 33000000 ug/L Marine water Fish – Hooknose – Agonus
cataphractus – Adult 96 hours

Ethanol

Acute EC50 >100 mg/L Daphnia 48 hours
Acute EC50 9.3 mg/L Daphnia 48 hours
Acute EC50 2 mg/L Daphnia 48 hours
Acute EC50 >100 ppm Fresh water Daphnia – Water flea – Daphnia magna - <24 hours 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 5680 to 7392 mg/L Fresh water Daphnia – Water flea – Daphnia magna –
Neonate - <24 hours 48 hours
Acute LC50 13 to 16 ml/L Fresh water Fish – Rainbow trout – Oncorhynchus mykiss – 0.8 g
96 hours
Acute LC50 >100 mg/L Fish 96 hours
Acute LC50 >100000 ug/L Fresh water Fish – Fathead minnow – Pimephales promelas -
Juvenile (Fledgling, Hatchling, Weanling) – 0.2 to 0.5 g
Acute LC50 42000 ug/L Fresh water Fish – Rainbow trout, Donaldson trout – Oncorhynchus
mykiss 4 days
Acute LC50 25500 ug/L Marina water Crustances – Brine shrimp – Artemia franchiscana –
LARVAE 48 hours
Acute LC50 13480000 ug/L Fresh water Fish – Fathead minnow – Pimephales promelas -
Juvenile (Fledgling, Hatchling, Weanling) – 4 to 8 weeks – 1.1 to 3.1 cm 96 hours
Acute LC50 11000000 ug/L Marine water Fish – Bleak – Alburnus alburnus – 8 to 10 cm 96
hours
Acute LC50 >100 mg/L Daphnia 96 hours
Acute LC50 3715000 to 4432000 ug/L Fresh water Daphnia – Water flea – Ceriodaphnia
dubia – neonate 48 hours
Acute LC50 10000000 to 11500000 ug/L marine water Fish – Bleak – Alburnus alburnus – 8
cm 96 hours
Acute LC50 6772000 to 7710000 ug/L Fresh water Daphnia – Water flea – Ceriodaphnia
dubia – Neonate 48 hours
Acute LC50 6386000 to 7461000 ug/L Fresh water Daphnia – Water flea – Ceriodaphnia
dubia – Neonate 48 hours
Acute LC50 5577000 to 6557000 ug/L Fresh water Daphnia – Water flea – Ceriodaphnia
dubia – neonate 48 hours
Acute LC50 6325000 to 7413000 ug/L Fresh water Daphnia – Water flea – Ceriodaphnia
dubia – Neonate 48 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 LC 50 6076000 to 7115000 ug/L Fresh water Daphnia – Water flea – Ceriodaphnia
dubia – Neonate 48 hours
Chronic NOEC <6.3 g/L Fresh water Daphnia – Water flea – Daphnia magna 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 425.3 mg/L Fish 96 hours
Acute LC50 484 mg/L Fish 96 hours
Acute LC50 230 mg/L Fish 96 hours
Acute LC50 560000 ug/L Fresh – Water flea – Daphnia magna - <1 days 48 hours
Acute LC50 48400 to 602000 ug/L Fresh water Fish – Rainbow trout – Oncorhynchus mykiss
– Juvenile (Fledgling, Hatchling, Weanling) 96 hours
Acute LC50 425300 to 500000 ug/L Fresh water Fish – rainbow trout, donalson 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 295000 ug/L Fresh water Fish – Fathead minnow – Pimephales promelas – 29
to 30 days – 18.2 mm – 0.106 g 96 hours
Acute LC50 230000 ug/L Fresh water Daphnia – Water flea – Daphnia pulex - <1 days 48
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

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Acute LC50 154000 ug/L Fresh water Daphnia – Water flea – Daphnia cucullata – 11 days 48 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
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

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

SECTION 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.

SECTION 14 Transport Information

DOT Classification: Ethyl Alcohol Solutions, 3, UN1170, PG II

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

SECTION 15 Regulatory Information

United States

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

U.S. Federal regulations:

United States inventory (TSCA 8b): listed
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 notifications: No products were found
SARA 302/304/311/312 hazardous chemicals: Ethyl Acetate; 4-Methyl-2-Pentanone; Ethanol; Methanol
SARA 311/312 MSDS distribution- Chemical inventory- hazard identification: Ethyl Acetate; 4-Methyl-2-Pentanone; Ethanol; 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 substance: No products were found.
Clean Air Act (CAA) 112 regulated toxic substance: No products were found

DEA List I Chemicals : not listed
(Precursor Chemicals)
DEA List II Chemicals : listed
(essential Chemicals)

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).

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CEPA DSL/ CEPA NDSL : CEPA DSL:

This material is listed or exempted.

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

SECTION 16

Additional Information

Flammability

Health

Reactivity

Revisions

NFPA

0.3

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.