

Ethyl Acetate

SDS Preparation Date (mm/dd/yyyy): 12/09/2015

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SECTION 1. IDENTIFICATION

Product identifier used on the label

: Ethyl Acetate

Product Code(s) : Not available.

Recommended use of the chemical and restrictions on use

: Solvent; Reagent

Use pattern: Professional Use Only Restriction on use: None known

Chemical family : Pure substance

Name, address, and telephone number

of the supplier:

Comet Chemical Company Ltd.

Name, address, and telephone number of

the manufacturer:

Refer to supplier

3463 Thomas Street

Innisfill, ON, Canada

L9S 3W4

Supplier's Telephone # : 705-436-5580

24 Hr. Emergency Tel # : TERRRAPURE ENVIRONMENTAL : 800-567-7455

SECTION 2. HAZARDS IDENTIFICATION

Classification of the chemical

Clear colourless liquid. Strong, sweet odour.

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products Regulations) (WHMIS 2015).

Hazard classification:

Flammable Liquids - Category 2

Specific Target Organ Toxicity, Single Exposure -Category 3 (respiratory) Specific Target Organ Toxicity, Single Exposure - Category 3 narcotic effects

Label elements

Hazard pictogram(s)





Signal Word

DANGER!

Hazard statement(s)

Highly flammable liquid and vapour! May cause respiratory irritation. May cause drowsiness or dizziness.

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Precautionary statement(s)

Keep away from heat, open flames and hot surfaces. - No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing mist or vapours.

Wash thoroughly after handling.

Use only outdoors or in a well-ventilated area.

Wear protective gloves and eye/face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

If inhaled: Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

In case of fire: Use water fog, dry chemical, CO2 or 'alcohol' foam for extinction.

Store in a well-ventilated place. Keep cool.

Keep container tightly closed.

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

Other hazards

Other hazards which do not result in classification: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Direct eye contact may cause slight or mild, transient irritation. Direct skin contact may cause slight or mild, transient irritation. Static discharges or other ignition sources at temperatures higher than the flash point could cause a fire

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Pure substance

Skin contact

Eye contact

Chemical name	Common name and synonyms	CAS#	Concentration	
Ethyl acetate	Ethyl ethanoate Acetoxyethane	141-78-6	100.00	

SECTION 4. FIRST-AID MEASURES

Description of first aid measures

Ingestion : Call a physician or poison control centre immediately. Do not induce vomiting. If

vomiting occurs spontaneously, keep victim's head lowered (forward) to reduce the risk of aspiration. Never give anything by mouth to an unconscious person.

of aspiration. Never give anything by mouth to an unconscious person.

Inhalation : If inhaled, move to fresh air. If breathing is difficult, give oxygen by qualified medical

personnel only. If breathing has stopped, give artificial respiration. Get medical

attention if symptoms persist.

: Wash off with soap and plenty of water. If irritation or symptoms develop, seek medical

attention. Wash contaminated clothing before re-use.

Immediately flush eyes with running water for at least 15 minutes. Obtain medical attention if irritation persists.

Most important symptoms and effects, both acute and delayed

May cause respiratory irritation. Symptoms may include upper respiratory irritation, coughing and breathing difficulties. May cause central nervous system effects. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects. Direct skin contact may cause slight or mild, transient irritation. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Direct eye contact may cause slight or mild, transient irritation.

Indication of any immediate medical attention and special treatment needed

: Treat symptomatically. This product is a CNS depressant.



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SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media

 Use water fog or fine spray, foams, carbon dioxide or dry chemical. Do not use a solid water stream as it may scatter and spread fire.

Unsuitable extinguishing media

: Do not use a solid water stream as it may scatter and spread fire.

Special hazards arising from the substance or mixture / Conditions of flammability

: Vapors may travel considerable distance to a source of ignition and flash back. Vapors are heavier than air and may spread along floors. Static discharge, impact, friction, and heat may ignite exposed chemical material.

Flammability classification (OSHA 29 CFR 1910.106)

: Flammable Liquids - Category 2

Hazardous combustion products

: Carbon monoxide, carbon dioxide, toxic vapours, gases or particulates.

Special protective equipment and precautions for firefighters

Protective equipment for fire-fighters

: Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

Special fire-fighting procedures

Fight fires from a safe distance. Firefighters should wear proper protective equipment and self-contained breathing apparatus with full face piece operated in positive pressure mode. Move containers from fire area if safe to do so. Water spray may be useful in cooling equipment exposed to heat and flame.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

: Restrict access to area until completion of clean-up. Ensure clean-up is conducted by trained personnel only. Individuals involved in the cleanup must wear appropriate personal protective equipment. For personal protection see section 8.

Environmental precautions

Ensure spilled product does not enter drains, sewers, waterways, or confined spaces. For large spills, dike the area to prevent spreading.

Methods and material for containment and cleaning up

: Ventilate area of release. Stop spill or leak at source if safely possible. Dike for water control. Use only non-sparking tools and equipment in the clean-up process. Contain and absorb spilled liquid with inert, non-combustible absorbent material (e.g. sand, vermiculite), then place material into open, unsealed containers. For waste disposal, see Section 13 of the SDS.

Special spill response procedures

 In case of transportation accident, contact TERRAPURE ENVIRONMENTAL at 1-800-567-7455.

US CERCLA Reportable quantity (RQ): Ethyl acetate (5000 lbs / 2270 kg)

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling



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Use only in well-ventilated areas. Wear suitable protective equipment during handling. Do not ingest or swallow. Avoid breathing vapours. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling. Keep away from heat and flame. Use only non-sparking tools with this material. Avoid contact with incompatible materials. Keep containers tightly closed when not in use. Empty containers retain residue (liquid and/or vapour) and can be dangerous. Do not use pressure to empty drums. Do not cut, weld, drill or grind on or near this container. Follow labeled warnings even after container is emptied.

Conditions for safe storage

Store in a cool, dry, well-ventilated area. Store away from incompatible materials. Storage area should be clearly identified, clear of obstruction and accessible only to trained and authorized personnel. Inspect periodically for damage or leaks. No smoking in the area.

Incompatible materials : Strong acids, alkalies, and oxidizers.

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Limits:					
Chemical Name	ACGIF	I TLV	OSHA PEL		
	<u>TWA</u>	<u>STEL</u>	<u>PEL</u>	<u>STEL</u>	
Ethyl acetate	400 ppm	N/Av	400 ppm (1400 mg/m³)	N/Av	

Exposure controls

Ventilation and engineering measures

: Ensure adequate ventilation, especially in confined areas. Use general or local

exhaust ventilation to maintain air concentrations below recommended exposure limits.

Respiratory protection: Respiratory protection is required if the concentrations exceed the TLV.

NIOSH-approved respirators are recommended. Advice should be sought from respiratory protection specialists. Respirators should be selected based on the form and concentration of contaminants in air, and in accordance with OSHA (29 CFR

1910.134) or CSA Z94.4-02.

Skin protection: Wear gloves impervious to this material. Advice should be sought from glove

suppliers

Eye / face protection: Wear safety glasses with side shields (or goggles).

Other protective equipment : An eyewash station and safety shower should be made available in the immediate

working area. Depending on conditions of use, an impervious apron should be worn.

Other equipment may be required depending on workplace standards.

General hygiene considerations

: Avoid breathing vapour or mist. Avoid contact with skin, eyes and clothing. Do not ingest. Do not eat, drink or smoke when using this product. Upon completion of work, wash hands before eating, drinking, smoking or use of toilet facilities. Remove soiled

clothing and wash it thoroughly before reuse.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Clear colourless liquid.

Odour : Strong, sweet odour.

Odour threshold : 6-50 ppm pH : N/Av

Melting/Freezing point : -84C (-119.2°F)

Initial boiling point and boiling range

: 77°C (170.6°F)

Flash point : $-4^{\circ}C$ (24.8°F)



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Flashpoint (Method) : Closed cup

Evaporation rate (BuAe = 1) : 2.1

Flammability (solid, gas) : Not applicable.

Lower flammable limit (% by vol.)

2%

Upper flammable limit (% by vol.)

: 11%

Oxidizing properties: None.Explosive properties: Not explosiveVapour pressure: 73 nnHgVapour density: 3

Relative density / Specific gravity

: 0.902

Solubility in water : Slightly soluble.

Other solubility(ies) : Soluble in most organic solvents (e.g. ethanol, acetone, diethyl ether, chloroform).

Partition coefficient: n-octanol/water or Coefficient of water/oil distribution

: 0.73

Auto-ignition temperature : 385 - 470°C (725 - 878°F)

Decomposition temperature: Not applicable.

Viscosity : 0.48 cSt @ 20°C (68°F)

Volatiles (% by weight) : Not available.

Volatile organic Compounds (VOC's)

: N/Av

Absolute pressure of container

: N/Ap

Flame projection length : N/Ap

Other physical/chemical comments

None known or reported by the manufacturer.

SECTION 10. STABILITY AND REACTIVITY

Reactivity: Not normally reactive.

Chemical stability : Stable under the recommended storage and handling conditions prescribed.

Possibility of hazardous reactions

Hazardous polymerization will not occur.

Conditions to avoid : Keep away from excessive heat, open flames, sparks and other possible sources of

ignition. Avoid contact with incompatible materials. Do not use in areas without adequate ventilation. Avoid heat, open flames, sparks, static electricity and electrical

equipment.

Incompatible materials : Strong acids, alkalies, and oxidizers.

Hazardous decomposition products

: None known, refer to hazardous combustion products in Section 5.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Routes of entry inhalation : YES
Routes of entry skin & eye : YES
Routes of entry Ingestion : YES



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Routes of exposure skin absorption

: NO

Potential Health Effects:

Signs and symptoms of short-term (acute) exposure

Sign and symptoms Inhalation

• May cause irritation of the nose, throat, mucous membranes, and respiratory tract. Symptoms may include pain, headache, nausea, vomiting, dizziness, drowsiness and other central nervous system effects.

Sign and symptoms ingestion

: May cause irritation of mouth, throat, and stomach. May be an aspiration hazard. Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

Sign and symptoms skin : M

: May cause mild skin irritation.

Sign and symptoms eyes

: Direct eye contact may cause temporary redness.

Potential Chronic Health Effects

Prolonged or repeated skin contact may cause drying and irritation.

Mutagenicity : Not expected to be mutagenic in humans.

Carcinogenicity: No components are listed as carcinogens by ACGIH, IARC, OSHA or NTP.

Reproductive effects & Teratogenicity

: Not expected to have other reproductive effects.

Sensitization to material

: Not expected to be a skin or respiratory sensitizer.

Specific target organ effects

: Eyes, skin, respiratory system, digestive system, central nervous system. Liver

This material is classified as hazardous under U.S. OSHA regulations (29CFR 1910.1200) (Hazcom 2012) and Canadian WHMIS regulations (Hazardous Products

Regulations) (WHMIS 2015). Classification:

Specific Target Organ Toxicity, Single Exposure -Category 3 (respiratory) Specific Target Organ Toxicity, Single Exposure - Category 3 narcotic effects

May cause respiratory irritation. May cause drowsiness or dizziness.

Not classified as specific target organ toxicity-repeated exposure.

Medical conditions aggravated by overexposure

: Pre-existing skin, eye and respiratory disorders.

Synergistic materials

None known or reported by the manufacturer.

Toxicological data

: See below for toxicological data on the substance.

	LC50(4hr)	LDe	0	
Chemical name	inh, rat	(Oral, rat)	(Rabbit, dermal)	
Ethyl acetate	8000 - 16 000 ppm (28.8 - 57.7 mg/L) (vapour)	10 200 mg/kg	> 18 000 mg/kg	

Other important toxicological hazards

: None known or reported by the manufacturer.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

See the following tables for individual ingredient ecotoxicity data. Do not allow material to contaminate ground water system.

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Ecotoxicity data:

<u>Ingredients</u>	040 N	Toxicity to Fish				
	CAS No	LC50 / 96h	NOEC / 21 day	M Factor		
Ethyl acetate	141-78-6	> 100 mg/L	N/Av	None.		

<u>Ingredients</u>	CAS No	Toxicity to Daphnia				
	N	EC50 / 48h	NOEC / 21 day	M Factor		
Ethyl acetate	141-78-6	> 100 mg/L	N/Av	None.		

<u>Ingredients</u>	CAS No	Toxicity to Algae					Toxicity to Algae		
		EC50 / 96h or 72h	NOEC / 96h or 72h	M Factor					
Ethyl acetate	141-78-6	> 100 mg/L/72hr	N/Av	None.					

Persistence and degradability

: Readily biodegradable.

Bioaccumulation potential: Does not significantly accumulate in organisms.

Components	Partition coefficent n-octanol/ater (log Kow)	Bioconcentration factor (BCF)
Ethyl acetate (CAS 141-78-6)	0.73	30

Mobility in soil : No data is available on the product itself.

Other Adverse Environmental effects

: No data is available on the product itself.

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SECTION 13. DISPOSAL CONSIDERATIONS

Handling for Disposal : See Section 7 (Handling and Storage) for further details. Empty containers retain

residue (liquid and/or vapour) and can be dangerous. Do not cut, weld, drill or grind on

or near this container.

Methods of Disposal : Dispose in accordance with all applicable federal, state, provincial and local

regulations.

RCRA : If this product, as supplied, becomes a waste in the United States, it may meet the criteria of a hazardous waste as defined under RCRA, Title 40 CFR 261. It is the

responsibility of the waste generator to determine the proper waste identification and

disposal method.

SECTION 14. TRANSPORTATION	ON INFORMATION

Regulatory Information	UN Number	UN proper shipping name	Transport hazard class(es)	Packing Group	Label
TDG	UN1173	ETHYL ACETATE	3	II	3



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TDG Additional nformation	, ,	ned as LIMITED QUANTITY when transported in lkg gross mass. Under the TDGR, refer to Sect emption.						
49CFR/DOT	UN1173	ETHYL ACETATE	3	II	3			
49CFR/DOT Additional information	exceeding 30	ed as LIMITED QUANTITY when transported in kg gross mass. Refer to 49 CFR Section 173.1 Reportable quantity (RQ): Acetone (5000 lbs / 2)	50.	ı packages ı	not			
ICAO/IATA	UN1173	Ethyl acetate	3	II	3			
ICAO/IATA Additional information	Refer to ICAO/IATA Packing Instruction							
IMDG	UN1173	ETHYL ACETATE	3	II	3			
IMDG Additional information	May be shipp	ed as a Limited Quantity. Check the IMDG regul	ations for details.	ns for details.				

Special precautions for user

: Keep away from heat, sparks and open flame. - No smoking.

Environmental hazards

: See ECOLOGICAL INFORMATION, Section 12.

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

: Not available.

SECTION 15 - REGULATORY INFORMATION

US Federal Information:

Components listed below are present on the following U.S. Federal chemical lists:

	TSCA		CERCLA Reportable Quantity(RQ) (40 CFR 117.302):	SARA TITLE III: Sec. 302, Extremely	SARA TITLE III: Sec. 313, 40 CFR 372, Specific Toxic Chemical		
<u>Ingredients</u>	CAS # Inventory	Hazardous Substance, 40 CFR 355:		Toxic Chemical	de minimus Concentration		
Ethyl acetate	141-78-6	Yes	5000 lb/ 2270 kg	None.	No	N/Ap	

SARA TITLE III: Sec. 311 and 312, SDS Requirements, 40 CFR 370 Hazard Classes: Fire Hazard; Immediate (Acute) health hazard Under SARA Sections 311 and 312, the EPA has established threshold quantities for the reporting of hazardous chemicals. The current thresholds are 500 pounds for the threshold planning quantity (TPQ), whichever is lower, for extremely hazardous substances and 10,000 pounds for all other hazardous chemicals.

US State Right to Know Laws:

The following chemicals are specifically listed by individual States:

Ingredients	Ingredients CAS#	California Proposition 65		State "Right to Know" Lists					
<u>5.6.16.16.</u>		Listed	Type of Toxicity	CA	MA	MN	NJ	PA	RI
Ethyl acetate	141-78-6	No	N/Ap	Yes	Yes	Yes	Yes	Yes	Yes

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Canadian Information:

WHMIS Classification: Refer to Section 2 for a WHMIS Classification for this product. All ingredients are present on the DSL.

International Information:

Components listed below are present on the following International Inventory list:

<u>Ingredients</u>	CAS#	European EINECs	Australia AICS	Philippines PICCS	Japan ENCS	Korea KECI/KECL	China IECSC	NewZealand IOC
Ethyl acetate	141-78-6	205-500-4	Present	Present	(2)-726	KE-00047	Present	HSR001041

SECTION 16. OTHER INFORMATION

Legend

ACGIH: American Conference of Governmental Industrial Hygienists

CA: California

CAS: Chemical Abstract Services

CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act

of 1980

CFR: Code of Federal Regulations CNS: Central Nervous System

CSA: Canadian Standards Association DOT: Department of Transportation EPA: Environmental Protection Agency

HMIS: Hazardous Materials Identification System HSDB: Hazardous Substances Data Bank IARC: International Agency for Research on Cancer

Inh: Inhalation

IUCLID: International Uniform Chemical Information Database

LC: Lethal Concentration LD: Lethal Dose MA: Massachusetts MN: Minnesota N/Ap: Not Applicable N/Av: Not Available

NFPA: National Fire Protection Association

NIOSH: National Institute of Occupational Safety and Health

NJ: New Jersey

NTP: National Toxicology Program

OSHA: Occupational Safety and Health Administration

PA: Pennsylvania

PEL: Permissible exposure limit

RCRA: Resource Conservation and Recovery Act

RI: Rhode Island

RTECS: Registry of Toxic Effects of Chemical Substances SARA: Superfund Amendments and Reauthorization Act

STEL: Short Term Exposure Limit

TDG: Canadian Transportation of Dangerous Goods Act & Regulations

TLV: Threshold Limit Values TWA: Time Weighted Average

WHMIS: Workplace Hazardous Materials Identification System

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References : Canadian Centre for Occupational Health and Safety, CCInfoWeb Databases, 2015

(Chempendium, RTECs, HSDB, INCHEM).

European Chemicals Agency, Classification Legislation, 2015

OECD- The Global Portal to Information on Chemical Substances - eChemPortal,

2015

Material Safety Data Sheet from manufacturer

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Other special considerations for handling

: Provide adequate information, instruction and training for operators.

Prepared for:

Comet Chemical Company Ltd. 3463 Thomas Street Innisfill, ON L9S 3W4

Information (M-F 8:00-5:00): 705-436-5580

www.cometchemical.com



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