



Safety Data Sheet

Material Name: CLEAN HARBORS ETHYL ACETATE

SDS ID: 89039

*** Section 1 - Identification ***

Product Identifier

CLEAN HARBORS ETHYL ACETATE

Product Code

Chicago

Synonyms

Acetic Esther

Recommended Use

Solvent for chemical intermediates (oils, gums, resins)

Restrictions on Use

If this product is used in combination with other products, refer to the Safety Data Sheet for those products.

Manufacturer Information

Clean Harbors Recycling Services of Chicago LLC

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Emergency # 1-800-645-8265

Issue Date

April 4, 2019

Supersedes Issue Date

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Original Issue Date

June 6, 2009

*** Section 2 - Hazard(s) Identification ***

Classification in Accordance with 29 CFR 1910.1200.

Flammable Liquids, Category 2

Acute Toxicity (Inhalation), Category 3

Eye Damage / Irritation, Category 2A

Specific Target Organ Toxicity - Single Exposure, Category 3

Specific Target Organ Toxicity - Single Exposure, Category 1 (liver and kidneys)

GHS LABEL ELEMENTS**Symbol(s)****Signal Word**

DANGER!

Hazard Statement(s)

Highly flammable liquid and vapor

Toxic if inhaled.

Causes serious eye irritation

May cause drowsiness and dizziness

May cause respiratory irritation

Causes damage to liver and kidneys.

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Precautionary Statement(s)

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe vapor or mist. Use only outdoors or in a well-ventilated area. Wear protective gloves and eye/face protection. Wash thoroughly after handling. Do not eat, drink or smoke when using this product.

Response

In case of fire, use media appropriate for extinction. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage

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

Disposal

Dispose of in accordance with all applicable federal, state and local regulations.

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

CAS	Component	Percent
141-78-6	Ethyl acetate	97-100

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

Description of Necessary Measures

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.

Skin

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

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

IF SWALLOWED: Do NOT induce vomiting. Immediately get medical attention. Call 1-800-645-8265 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.

Most Important Symptoms/Effects

Acute

Toxic if inhaled, eye irritation, respiratory tract irritation, central nervous system depression, kidney damage, liver damage

Delayed

No information on significant adverse effects.

Indication of Immediate Medical Attention and Special Treatment Needed, If Needed

Treat symptomatically and supportively. 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 1-800-645-8265 for additional information.

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

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

Do not scatter spilled material with high-pressure water streams.

Specific Hazards Arising from the Chemical

Highly flammable liquid and vapor. Avoid friction, static electricity and sparks. Product may be sensitive to static discharge, which could result in fire or explosion. Vapors may form explosive mixture with air. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Vapors may cause drowsiness and dizziness. Fire may produce irritating, poisonous and/or corrosive fumes. Runoff to sewer may cause a fire or explosion hazard. Containers may rupture or explode. Empty containers may contain product residue.

Hazardous Combustion Products

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

Special Protective Equipment and Precautions for Firefighters

A positive-pressure, self-contained breathing apparatus (SCBA) and full-body protective equipment are required for fire emergencies.

Fire Fighting Measures

Keep storage containers cool with water spray.

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

Personal Precautions, Protective Equipment and Emergency Procedures

Remove all ignition sources. Do not touch or walk through spilled material. Stop leak if possible without personal risk. Wear personal protective clothing and equipment, see Section 8. Keep unnecessary people away, isolate hazard area and deny entry. Ventilate the area. Avoid breathing vapor or mist. A vapor suppressing foam may be used to reduce vapors.

Methods and Materials for Containment and Clean Up

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. Do not allow product to enter sewer or waterways.

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**.

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

Precautions for Safe Handling

Keep away from heat, sparks, or flame. Where flammable mixtures may be present, equipment safe for such locations should be used. Use clean, sparkproof tools and explosion-proof equipment. When transferring 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. Wash thoroughly after handling.

Conditions for Safe Storage, Including Any Incompatibilities

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** for Packing Group information.

Incompatibilities

Strong acids, strong bases, strong oxidizer

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

Component Exposure Limits

Acetate, ethyl	141-78-6
ACGIH:	400 ppm TWA
NIOSH:	400 ppm TWA ; 1400 mg/m ³ TWA ; 2000 ppm IDLH (10% LEL)
OSHA (US):	400 ppm TWA ; 1400 mg/m ³ TWA

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

Canada, ACGIH, OSHA, and NIOSH have not developed exposure limits for any of this product's components.

Engineering Controls

Provide general ventilation. Where adequate general ventilation is unavailable, use process enclosures, local exhaust ventilation, or other engineering controls.

Individual Protection Measures, such as Personal Protective Equipment

Eye/face protection

Safety glasses with side shields should be worn at a minimum. Additional protection like goggles, face shields, or respirators may be needed dependent upon anticipated use and concentrations of mists or vapors. Provide an emergency eye wash fountain and quick drench shower in the immediate work area. Contact lens use is not recommended.

Respiratory Protection

It is not expected that using this product as recommended would require wearing a respirator. If ventilation is not sufficient to effectively prevent buildup of mists or vapors, appropriate respiratory protection must be provided. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.1 requirements must be followed whenever workplace conditions warrant a respirator's use.

Glove Recommendations

Where skin contact is likely, wear chemical impervious gloves. Use of the following gloves types is NOT recommended: polyvinyl alcohol (PVA), polyvinyl chloride (PVC), nitrile or equivalent gloves. 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.

Protective Materials

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

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

Appearance/Odor :	Clear, colorless liquid, slightly fruity odor	pH:	Not applicable
Boiling Point:	171°F (77°C)	Odor Threshold:	50 ppm
Solubility (H2O):	Slight.	Melting Point:	-119°F (-84°C)
Density:	7.5 LB/US gal (900 g/l)	Specific Gravity:	0.90 (water =1)
Evaporation Rate:	6.2 (butyl acetate =1)	Octanol/H2O Coeff.:	Log Pow = 0.73
Auto Ignition Temperature:	799°F (426°C)	Molecular Weight:	88.1
Flash Point:	25°F (-4°C) Closed Cup; 45°F (7°C) Open Cup	LFL:	2 VOL%
Viscosity:	<4000.0	UFL:	11.5 VOL%
Flammability Class:	Flammable	Vapor Pressure:	73 mm Hg at 68°F (20°C)
Percent Volatile:	100 WT% As per 40 CFR Part 51.100(s)	Vapor Density:	3 (air = 1)
Flash Point Method:	Closed Cup	Freezing Point:	-119°F (-84°C)

*** Section 10 - Stability & Reactivity ***

Reactivity

No reactivity hazard is expected.

Chemical Stability

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

Possibility of Hazardous Reactions

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

Conditions To Avoid

Avoid heat, sparks, or flame.

Incompatible Materials

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

Hazardous Decomposition Products

None under normal temperatures and pressures. See also **Section 5**.

*** Section 11 - Toxicological Information ***

Information on Likely Routes of Exposure

Inhalation

Toxic if inhaled, May cause respiratory irritation. May cause drowsiness or dizziness.

Skin Contact

May cause irritation of the skin.

Eye Contact

Causes serious eye irritation.

Ingestion

Breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Acute and Chronic Toxicity

Component Analysis - LD50/LC50

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

Acetate, ethyl (141-78-6)

Oral LD50 Rat 5620 mg/kg; Dermal LD50 Rabbit >18000 mg/kg; Inhalation LC50 Rat 4000 ppm 4 h

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Product Toxicity Data

Acute Toxicity Estimate

No data available.

Immediate Effects

Toxic if inhaled. High concentrations of vapor or mist may irritate the respiratory tract (nose, throat, and lungs), may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, and other central nervous system effects; and/or liver and kidney damage. Massive acute overexposure may cause rapid central nervous system depression, sudden collapse, coma, and/or death. May cause, eye irritation with redness, tearing, pain and/or blurred vision. May cause, skin irritation, redness, and/ or drying. This product is not likely to be absorbed through the skin in harmful amounts. In rare instances, repeated skin contact with ethyl acetate may cause sensitization. May be harmful if swallowed. May cause, throat irritation, nausea, vomiting, central nervous system effects as noted for inhalation. Aspiration hazard: breathing product into the lungs during ingestion or vomiting may cause lung injury and possible death.

Delayed Effects

Prolonged or repeated inhalation may cause toxic effects as noted under Acute Inhalation. 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). In rare instances, repeated skin contact with ethyl acetate may cause sensitization. Prolonged or repeated exposure may have reproductive toxicity or mutagenic effects. Ethyl acetate has demonstrated animal effects of mutagenicity.

Irritation/Corrosivity Data

Causes serious eye irritation. May cause skin irritation. May cause respiratory irritation.

Respiratory Sensitization

No information available for the product.

Dermal Sensitization

In rare instances, repeated skin contact with ethyl acetate may cause sensitization.

Component Carcinogenicity

None of this product's components are listed by ACGIH, IARC, NTP, DFG or OSHA

Germ Cell Mutagenicity

Repeated or prolonged exposure may cause mutagenic effects. Ethyl acetate has demonstrated animal effects of mutagenicity.

Tumorigenic Data

No data available

Reproductive Toxicity

Prolonged or repeated exposure may cause reproductive effects.

Specific Target Organ Toxicity - Single Exposure

Eye, skin, kidneys, liver, central nervous system, respiratory tract.

Specific Target Organ Toxicity - Repeated Exposure

Eye, skin.

Aspiration hazard

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 cardiovascular, liver, kidney, respiratory tract (nose, throat, and lungs), central nervous system, eye, and/or skin disorders may have increased susceptibility to the effects of exposure.

*** Section 12 - Ecological Information ***

Component Analysis - Aquatic Toxicity

Acetate, ethyl	141-78-6
Fish:	LC50 96 h Pimephales promelas 220 - 250 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 484 mg/L [flow-through]; LC50 96 h Oncorhynchus mykiss 352 - 500 mg/L [semi-static]

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Invertebrate:	EC50 48 h Daphnia magna 560 mg/L [Static] EPA
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Persistence and Degradability

No information available for the product.

Bioaccumulative Potential

No information available for the product.

Mobility

No information available for the product.

Other Toxicity

No additional information available.

*** Section 13 - Disposal Considerations ***

Disposal Methods

Dispose of in accordance with all applicable federal, state and local regulations. Based on available data, this information applies to the product as supplied to the user. Processing, use, or contamination by the user may change the waste code applicable to the disposal of this product.

Component Waste Numbers

Acetate, ethyl	waste number U112 (Ignitable waste)
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*** Section 14 - Transport Information ***

US DOT Information:

Shipping Name: ETHYL ACETATE

Hazard Class: 3

UN/NA #: UN1173

Packing Group: II

Required Label(s): 3 FLAMMABLE LIQUID

IATA Information:

Shipping Name: ETHYL ACETATE

Hazard Class: 3

UN#: UN1173

Packing Group: II

Required Label(s): 3

IMDG Information:

Shipping Name: ETHYL ACETATE

Hazard Class: 3

UN#: UN1173

Packing Group: II

Required Label(s): 3

TDG Information:

Shipping Name: ETHYL ACETATE

Hazard Class: 3

UN#: UN1173

Packing Group: II

Required Label(s): 3 FLAMMABLE LIQUID

International Bulk Chemical Code

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

Acetate, ethyl	141-78-6
IBC Code:	Category Z

Further information

Emergency Response Guidebook reference: 129

***** Section 15 - Regulatory Information *****

U.S. Federal Regulations

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

Acetate, ethyl	141-78-6
CERCLA:	5000 lb final RQ ; 2270 kg final RQ

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

Flammable; Serious Eye Damage/Eye Irritation; Specific Target Organ Toxicity

U.S. State Regulations

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

Component	CAS	CA	MA	MN	NJ	PA
Acetate, ethyl	141-78-6	Yes	Yes	Yes	Yes	Yes

California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)

Not listed under California Proposition 65.

Component Analysis - Inventory

Acetate, ethyl (141-78-6)

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

***** Section 16 - Other Information *****

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

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

Summary of Changes

Regulatory review and update.

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Key/Legend

ACGIH - American Conference of Governmental Industrial Hygienists; AU - Australia; BOD - Biochemical Oxygen Demand; C - Celsius; CA - Canada; CAS - Chemical Abstracts Service; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CN - China; CPR - Controlled Products Regulations; DOT - Department of Transportation; DSL - Domestic Substances List; EEC - European Economic Community; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA - Environmental Protection Agency; EU - European Union; F - Fahrenheit; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; ICAO - International Civil Aviation Organization; IDL - Ingredient Disclosure List; IMDG - International Maritime Dangerous Goods; JP - Japan; Kow - Octanol/water partition coefficient; KR - Korea; LEL - Lower Explosive Limit; LOLI - List Of Lists™ - ChemADVISOR's Regulatory Database; NFPA - National Fire Protection Agency; NIOSH - National Institute for Occupational Safety and Health; NJTSR - New Jersey Trade Secret Registry; NTP - National Toxicology Program; NZ - New Zealand; OSHA - Occupational Safety and Health Administration; PH - Philippines; RCRA - Resource Conservation and Recovery Act; RTECS - Registry of Toxic Effects of Chemical Substances®; SARA - Superfund Amendments and Reauthorization Act; STEL - Short-term Exposure Limit; TDG - Transportation of Dangerous Goods; TSCA - Toxic Substances Control Act; TWA - Time Weighted Average; UEL - Upper Explosive Limit; US - United States

Disclaimer

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