

G.J. CHEMICAL COMPANY, INC. SAFETY DATA SHEET

1. PRODUCT IDENTIFIER

1.1 PRODUCT NAME-----> **ETHYL ACETATE**

PRODUCT NUMBERS-----> 154000, 154007, 154210, 154220, 154250,
154400, 154040, 154050, 154060,

CHEMICAL NAME OR SYNONYMS-----> Acetic Acid, Ethyl Ester

CAS-NO: 141-78-6

CHEMICAL FAMILY: Ester

1.2 RELAVENT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST:

RECOMMENDED USE: Industrial: Use in coatings, Use in lubricants, Use in adhesives and sealants, Use in printing, Use in cleaning agents, Intermediate, Use as an extraction solvent, Drumming and distribution, Laboratory chemicals.
USES ADVISED AGAINST: No information available

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

Company: **G.J. CHEMICAL CO., INC.**

Address: **40 VERONICA AVENUE
SOMERSET, NJ 08873**

Telephone: **1-973-589-1450**

Fax: **1-973-589-3072**

1.4 Emergency Telephone Number

Emergency Phone: **1-800-424-9300 (CHEMTREC)**

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225

Eye irritation (Category 2A), H319

Specific target organ toxicity - single exposure (Category 3) Central Nervous System, H336

2.2 GHS Label elements, including precautionary statements



Pictograms

GHS02

GHS07

Signal word

DANGER

Hazard statement(s)

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Precautionary statement(s)

Prevention:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P264 Wash skin thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/ physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS:

Repeated exposure may cause skin dryness or cracking.

3. INGREDIENTS

3.1 SUBSTANCE:

| Ingredient | CAS No. | % by wt. | CLASSIFICATION |
|---------------|--------------------------------|----------|--------------------------------------|
| Ethyl Acetate | 141-78-6 | 99.5 | Flammable liquids (Category 2), H225 |
| | EC-No.205-500-4 | | Eye irritation (Category 2A), H319 |
| | Index-No. 607-022-00-5 | | STOT-SE (Category 3) Central |
| | Reg.-No. 01-2119475103-46-XXXX | | Nervous System, H336 |

3.2 MIXTURE: Not applicable.

4. FIRST-AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

INGESTION> ETHYL ACETATE

****FIRST AID- Do not induce vomiting unless directed by a physician. Never give anything by mouth to an unconscious person. Rinse mouth with water. Get medical attention immediately. Treat symptomatically.**

EYES (SPLASH)> ETHYL ACETATE

****FIRST AID- Wash eyes immediately with large amounts of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20 minutes). Remove contact lenses, if worn, after initial flushing. Get medical attention immediately.**

INHALATION> ETHYL ACETATE

****FIRST AID- Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Treat symptomatically and supportively. Get medical attention immediately.**

SKIN (SPLASH)> ETHYL ACETATE

****FIRST AID- Remove contaminated clothing and shoes immediately. Wash affected area with soap or mild detergent and large amounts of water until no evidence of chemical remains (approximately 15-20 minutes). Get medical attention if irritation persists.**

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Ingestion: Nausea, diarrhea, central nervous system depression, drowsiness.

Eye contact: Splashes in eyes may cause severe irritation, possible corneal burns and eye damage. Can cause injury that may persist for several days.

Inhalation: Irritation of the respiratory tract. High concentrations may cause acute nervous system depression characterized by headache, dizziness, coughing, chest pain and breathing difficulty.

Skin contact: Contact with skin has a de-fatting action that can cause drying and /or cracking of skin.

Chronic: Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney or liver.

Medical Conditions Aggravated by Exposure: Significant exposure to this chemical may adversely affect people with acute or chronic disease of the: Respiratory tract, Skin, Eyes and central nervous system.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED:

Specific details on antidote: No recommendation given.

5. FIRE FIGHTING MEASURES

FLASH POINT: -4°C (24.8°F) TCC
AUTO-IGNITION TEMP: 427°C (800°F)

LEL %: 2.2
UEL %: 11.5

5.1 EXTINGUISHING MEDIA:

Suitable extinguishing media: Foam--> x CO2--> x Dry Chemical--> x Water-fog-->
x Other-->

Unsuitable extinguishing media: Do not use waterjet.

For larger fires, use water spray, fog or alcohol-resistant foam.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE:

FIRE AND EXPLOSION HAZARD: DANGEROUS FIRE HAZARD WHEN EXPOSED TO HEAT OR FLAME. VAPORS ARE HEAVIER THAN AIR AND MAY TRAVEL A CONSIDERABLE DISTANCE TO A SOURCE OF IGNITION AND FLASH BACK. VAPOR-AIR MIXTURES ARE EXPLOSIVE ABOVE FLASH POINT.

Keep containers tightly closed. Flammable liquid; isolate from all sources of ignition. Closed containers may explode when exposed to extreme heat. Liquid floats on water.

CONDITIONS OF FLAMMABILITY: Flammable in the presence of a source of ignition when the temperature is above the flash point.

HAZARDOUS COMBUSTION PRODUCTS: Highly dependent on combustion conditions. A complex mixture of airborne solids, liquids, and gases including carbon monoxide, carbon dioxide, carbon oxides and other unidentified organic compounds evolve when this material undergoes combustion.

5.3 ADVICE FOR FIREFIGHTERS: Shut off source. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to extreme heat. Keep unnecessary people away; isolate hazard area and deny entry. Avoid breathing vapors, stay upwind, do not spray pool fires directly. A solid stream of water or foam directed into hot burning liquid can cause frothing. Move container from fire area if you can do it without risk. Apply cooling water to sides of containers that are exposed to flames until well after fire is out. For massive fire in cargo area, use unmanned hose holder or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire. Water fog may be used to cool closed containers to prevent pressure build up and possible auto ignition or explosion when exposed to extreme heat. Cool containers with water-fog from as far a distance as possible. Wear NIOSH/MHSA approved self-contained breathing apparatus (SCBA) for confined spaces. Use full fire-fighting protective clothing. If protective equipment is not available or not used, fight fire from a protected location or safe distance. Wear self-contained breathing apparatus for confined spaces and where there is exposure to vapors.

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Extremely Flammable; Eliminate ignition sources in the vicinity of the spill or released vapor. Immediately evacuate all nonessential people. Verify that responders are properly trained and wearing appropriate respiratory

equipment and fire resistant protective clothing during cleanup operations.

6.2 ENVIRONMENTAL PRECAUTIONS:

Keep out of water sources, drains and sewers. Do not flush into surface water or sanitary sewer system

6.3 METHODS AND MATERIAL FOR CONTAINMENT AND CLEANING UP:

Methods for cleanup and containment:

Keep unnecessary people away; Isolate hazard area and deny entry.

Use explosion proof equipment. Shut off ignition sources. Do not touch spilled material. Stop leak if you can do it without risk. Use water spray to reduce vapors. Shut off valves, contain spill, for small spills take up with sand or other absorbent material and place into containers for later disposal. For large spills dike far ahead of spill for later disposal. No smoking, flames, or flares in spill area! Use foam on spill to minimize vapors clean up by vacuuming then using non-flammable absorbent.

Methods for disposal:

Place all saturated absorbent, using non-sparking tools, in an approved container for disposal. Minimize breathing vapors and skin contact, ventilate confined areas, open all windows and doors, assure conformity with applicable government regulations.

OCCUPATIONAL SPILL: Shut off ignition sources. Do not touch spilled material. Stop leak if you can do it without risk. Use water spray to reduce vapors. For small spills, take up with sand or other absorbent material and place into containers for later disposal. For large spills, dike far ahead of spill for later disposal. No smoking, flames, or flares in spill area! Keep unnecessary people away; Isolate hazard area and deny entry.

REPORTABLE QUANTITY (RQ): 5000lbs.

The Superfund Amendments and Reauthorization Act (SARA) Section 304 requires that a release equal to or greater than the reportable quantity for this substance be immediately reported to the local emergency planning committee and the state emergency response commission (40 CFR 355.40). If the release of this substance is reportable under CERCLA Section 103, the national response center must be notified immediately at (800) 424-8882 or (202) 426-2675 in the metropolitan Washington, D. C. area (40 CFR 302.6).

6.4 REFERENCE TO OTHER SECTIONS: See Sections 8 and 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

This material presents a fire hazard. Liquid quickly evaporates and forms vapor (fumes), which can catch fire and burn with explosive violence. Invisible vapor spreads easily and can be set on fire by many sources, such as pilot lights, welding equipment, and electrical motors and switches. Vapor is heavier than air and can travel considerable distance to a source of ignition and flash back. Avoid breathing vapors in top of shipping container. Use with adequate ventilation.

Avoid contact with eyes, skin and clothing. Do not take internally. Avoid work practices that may release volatile components in the atmosphere. Take precautionary measures against static discharge.

Due to danger of explosion, prevent leakage of vapors into cellars, flues and ditches. Avoid contaminating soil or releasing material into sewage and drainage systems. Use non-sparking tools to open or close containers.

Advice on general occupational hygiene:

Wash hands before breaks and after work. Keep away from food, drink and animal feeding stuffs. When using do not smoke.

STATIC HAZARD: Electrostatic charge may accumulate and create a hazardous condition when handling this material. To minimize this hazard, bonding and grounding may be necessary but may not be sufficient. For more information refer to OSHA Standard 29CFR 1910.106 "Flammable and Combustible Liquids" and National Fire Protection Association (NFPA 77) "Recommended Practice on Static Electricity".

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES:

Follow maximum allowed pile heights specified in the BOCA codes or the NFPA manual. Local fire authorities should be notified for storage of this material in any quantity. Local permits are required for storage in warehouse quantities. Recommended storage temperature: 15 - 25 °C. Store large quantities only in cool, dry areas in buildings designed to comply with OSHA 1910.106. Keep containers tight and upright to prevent leakage. Do not contact with oxidizing materials. Keep containers closed when not in use. Keep containers tight and upright to prevent leakage. Do not contact with oxidizing materials. Keep containers closed when not in use.

CONTAINER WARNINGS: Containers should be Bonded and Grounded when pouring. Avoid free fall of liquid in excess of a few inches. Empty containers release residue and can be dangerous. Do not pressurize, cut, weld, braze, solder, drill, or expose such containers to heat, sparks, static electricity or other sources of ignition. Do not attempt to clean. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum re-conditioner.

OBSERVE ALL FEDERAL, STATE AND LOCAL REGULATIONS WHEN STORING OR DISPOSING OF THIS SUBSTANCE. FOR ASSISTANCE, CONTACT THE DISTRICT DIRECTOR OF THE ENVIRONMENTAL PROTECTION AGENCY.

7.3 SPECIFIC END USES: Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

8. EXPOSURE CONTROL (PERSONAL PROTECTION)

8.1 CONTROL PARAMETERS:

| Ingredient | CAS No. | % by WT. Range | Exposure Limits |
|------------|---------|-------------------|--------------------|
|------------|---------|-------------------|--------------------|

| | | | |
|---------------|--------------------------------|------|--------------------|
| Ethyl Acetate | 141-78-6 | 99.5 | 400ppm TLV (ACGIH) |
| | EC-No.205-500-4 | | 400ppm TWA (OSHA) |
| | Index-No. 607-022-00-5 | | 2000ppm (IDLH) |
| | Reg.-No. 01-2119475103-46-XXXX | | |

Key: (PEL) = Permissible Exposure Limit OSHA
 (TLV) = Threshold Limit Value OSHA & ACGIH
 (STEL) = Short Term Exposure Limit ACGIH
 (WEEL) = USA. Workplace Environmental Exposure Levels
 (TWA) = Time Weighted Average
 CAS = Chemical Abstracts Registry Number
 IDLH = Immediate Danger to Life and Health
 N.E. =None Established

GENERAL CONSIDERATIONS: Consider the potential hazards of this material (Section 2), applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting personal protective equipment. If engineering controls or work practices are not adequate to prevent exposure to harmful levels of this material, the personal protective equipment listed below is recommended.

ENGINEERING CONTROLS: Provide general dilution or local exhaust ventilation in volume and pattern to keep concentrations within permitted exposure limits. All areas should be ventilated in accordance with OSHA Regulation 29 CFR Part 1910. Explosion proof motors should be used in mechanical ventilation.

RESPIRATORY PROTECTION: The specific respirator selected must be based on contamination levels found in the work place, must not exceed the working limits of the respirator and be jointly approved by the National Institute for Occupational Safety and Health and the Mine Safety and Health Administration (NIOSH-MSHA):

For known vapor concentrations use a NIOSH/MSHA air purifying respirator with full face-piece and organic vapor cartridge for exposures >1 <10 times ACGIH TLV. For exposures greater than 10 times ACGIH TLV or for unknown vapor concentrations use positive pressure self contained breathing apparatus with full face-piece (SCBA).

BODY CLOTHING: Use chemical resistant apron or other impervious clothing. Remove and wash contaminated clothing before reuse. Users should determine acceptable performance characteristics of protective clothing.

SKIN PROTECTION: Employee must wear appropriate protective gloves to prevent contact with this substance.

Splash contact

Material: butyl-rubber

Minimum layer thickness: 0.3 mm

Break through time: 113 min

HYGIENE: Use good personal hygiene practices, wash hands before eating, drinking, smoking or using toilet facilities.

EYE/FACE PROTECTION: Use safety eyewear with splash-guards or face shield. Contact lenses should not be worn when working with this material. Shower and eyewash should be located in an easily accessible location to the work area.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

Ethyl Acetate 141-78-6

| | |
|---|---------------------|
| Appearance-----> | Clear liquid |
| Color-----> | Colorless |
| Odor-----> | Fruity odor |
| Odor Threshold-----> | No Data Available |
| Odor-----> | Fruity |
| pH-----> | No Data Available |
| Molecular Weight-----> | 88.11 |
| Melting/Freezing Point-----> | -83°C (-117.4°F) |
| Boiling Point -----> | 170.6°F |
| Specific Gravity-----> | 0.902@20°C |
| Vapor Pressure-----> | 73mmHg@20°C |
| Vapor Density (air=1)-----> | 3.04 |
| Water Solubility-----> | 8.7% |
| Partition Coefficient N-Octanol/Water-----> | log Pow 0.6-0.73 |
| Evaporation Rate (Butyl Acetate=1)-----> | 4.5 |
| Flash Point-----> | 24°C TCC |
| Upper Flammability Limit-----> | 11.5% (V) |
| Lower Flammability Limit-----> | 2.2% (V) |
| Auto-Ignition Temperature-----> | 427.0 °C (800.6 °F) |
| Decomposition Temperature-----> | No Data Available |
| Viscosity-----> | No Data Available |
| Explosive Properties-----> | No Data Available |
| Oxidizing Properties-----> | No Data Available |

9.2 OTHER INFORMATION----->No Data Available

10. STABILITY AND REACTIVITY INFORMATION

10.1 REACTIVITY: Risk of ignition, Vapors can form explosive mixtures in air.

10.2 CHEMICAL STABILITY: Unstable () Stable (X)

This material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS: Vapors may form explosive mixtures with air.

HAZARDOUS POLYMERIZATION: May occur () Will not occur (X)

10.4 CONDITIONS TO AVOID: --> Heat, Sparks, Pilot Lights, Static Electricity, and Open Flame. Extremes of temperature and direct sunlight.

10.5 INCOMPATIBLE MATERIALS --> Strong oxidants such as liquid chlorine, oxygen, sodium hypochlorite, inorganic acids e.g. hydrochloric acid hydrogen peroxide. Different plastics.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS --> Thermal decomposition products may include: Fumes, Smoke, Carbon Monoxide, Aldehydes and other decomposition products where combustion is not complete.

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Routes of Entry: Inhalation--> x Skin--> x Ingestion--> x Eye--> x

ACUTE HEALTH EFFECTS:

Effects of overexposure:

Eye> Vapor and liquid irritating;

Skin> Causes drying of skin.

Inhalation> Irritation of the respiratory tract. High concentrations may cause acute nervous system depression characterized by headache, dizziness, coughing, chest pain and breathing difficulty.

Ingestion> Causes headache, drowsiness and dizziness.

Chronic: Typical symptoms are cardiovascular disorders, sweetish taste in the mouth, nausea, vomiting, loss of appetite, strong thirst, burning of eyes and bleeding from the nose. Damage may occur to the kidney or liver.

Medical Conditions Aggravated by Exposure> Significant exposure to this chemical may adversely affect people with acute or chronic disease of the: Respiratory tract, Skin, Eyes and central nervous system.

ACUTE TOXICITY:

The effects of overexposure shown in Section III are based on acute toxicity profiles. Typical values are:

| Ingredient | Oral LD50 (Rat) | Skin LD50 (Rabbit) | Inhalation LC50 | |
|---------------|-----------------|--------------------|-----------------|--|
| Ethyl Acetate | 5620mg/kg | >180000mg/kg | 45000mg/m3/2hr | |

SKIN CORROSION/IRRITATION: Skin - Rabbit Result: Mild skin irritation
(OECD Test Guideline 404)

SERIOUS EYE DAMAGE/EYE IRRITATION: Causes serious eye irritation

RESPIRATORY OR SKIN SENSITIZATION:

Respiratory: No data available.

Skin: No data available.

MUTAGENIC EFFECTS: No Data Available

CARCINOGEN STATUS:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. **OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

REPRODUCTIVE TOXICITY: No Data Available

Specific target organ toxicity (STOT - SE) - single exposure

May cause drowsiness or dizziness.

Specific target organ toxicity (STOT- RE) - repeated exposure
no data available

ASPIRATION HAZARD: No Data Available

11.2 ADDITIONAL DATA: Blood pressure drop, Narcosis, Vertigo. Poisoning effect on central nervous system can cause convulsions, labored breathing and loss of consciousness.

AT INCREASED RISK FROM EXPOSURE: Persons with liver disease.

RTECS: AH5425000

12. ECOLOGICAL INFORMATION

Ethyl Acetate exhibits low acute toxicity to aquatic organisms.

12.1 AQUATIC TOXICITY: (acute)

Toxicity to Fish:

LC50 pimephales promelas, (Fathead minnow) – 220-250mg/L – 96 h

LC50 Salmo gairdneri, (Rainbow trout) – 350-600mg/L – 96 h

Toxicity to daphnia and other invertebrates:

EC50 Daphnia magna, (Water Flea) - 560ppm – 48 h

EC50 Daphnia magna, (Water Flea) – 2300-3090mg/L – 24 h

Toxicity to algae:

EC50 Selenastrum, (green algae) - 4,300.00 mg/l – 24 h

EC50 Selenastrum, (green algae) - 1,800.00 - 3,200.00 mg/l – 72 h

12.2 PERSISTENCE AND DEGRADABILITY:

Result 79% Ethyl Acetate was readily biodegradable when tested according to (OECD Guideline 301D).

Theoretical Oxygen Demand: 1.82g/g

Theoretical Carbon Dioxide: 2mg/mg

Biochemical Oxygen Demand: 0.29g/g

Process: biotic/abiotic ; degradation rate: 100% Time: 28 days

Process: oxygen depletion degradation rate: 62% Time: 5 days

12.3 BIOACCUMULATIVE POTENTIAL:

Does not significantly accumulate in organisms.

n-octanol/water (log Kow): 0.68 (pH 7 25°C)

BCF: 30 (ECHA)

12.4 MOBILITY IN SOIL: Data are not available.

12.5 RESULTS OF PBT AND vPvB:

PBT assessment results: This substance is not classified as PBT or vPvB.

12.6 OTHER ADVERSE EFFECTS: Slightly hazardous to water.

13. DISPOSAL CONSIDERATIONS

13.1 WASTE TREATMENT METHODS:

Hazard characteristic and regulatory waste stream classification can change with product use. Accordingly it is the responsibility of the user to determine the proper storage, transportation, treatment and or disposal methodologies for spent materials and residues at time of disposition. Dispose in accordance with all applicable disposal regulations. Incinerate under controlled conditions in a permitted facility.

CONTAMINATED PACKAGING: Dispose of as unused product.

The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA classification and the proper disposal method.

RCRA: The unused product is a RCRA hazardous waste if discarded. The RCRA ID number is: U112 or the appropriate spent solvent code D001.

DISPOSAL MUST BE IN ACCORDANCE WITH STANDARDS APPLICABLE TO GENERATORS OF HAZARDOUS WASTE, 48 CFR 262

14. TRANSPORT INFORMATION

Land Transport (DOT)

14.1 USDOT ID Number-----> UN1172
14.2 USDOT Shipping Name-----> Ethyl Acetate
14.3 USDOT Hazard Classification-----> 3 (Flammable Liquid)
USDOT Label Codes-----> 3
14.4 USDOT Package Code-----> II
14.5 Environmental hazard-----> None
14.6 Special precautions for user-----> Yes
Emergency Response Guide-----> 129
Reportable quantity-----> 5000lbs.

Sea Transport (IMDG)

14.1 UN Number:-----> UN1173
14.2 Proper Shipping Name-----> Ethyl Acetate
14.3 Hazard Class:-----> 3
14.4 Packing Group:-----> II
14.5 Environmental hazard-----> Not applicable
14.6 Special precautions for user:----->
EmS-No-----> F-E S-D
Limited Quantity-----> 1L

Air Transport (ICAO/IATA)

14.1 UN Number:-----> UN1173
14.2 Proper Shipping Name:-----> Ethyl Acetate
14.3 Hazard Class:-----> 3
14.4 Packing Group:-----> II
14.5 Environmental hazard-----> Not applicable
14.6 Special precautions for user:----->

15. REGULATORY INFORMATION

15.1 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE:

SARA TITLE III (Superfund Amendment and Reauthorization Act)

SECTION 302 AND 304: Extremely Hazardous Substance List (40 CFR 355) - Not Listed

SECTION 313: Toxic Chemicals Listing (40 CFR 372.65) - Not Listed

SECTION 311/312: Hazard Categorization (40 CFR 370) - Acute Health Hazard, Chronic Health Hazard, Fire Hazard.

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act)

SECTION 102(A) Hazardous Substances (40 CFR 302.4) - Listed

SECTION 101(14) Reportable Quantity: 5,000 lbs

RCRA (Resource Conservation and Recovery Act.)

40 CFR 261.33 Hazardous Waste Number: U112 or appropriate Spent Solvent Number D001.

Massachusetts Right to Know Components

Ethyl acetate CAS-No. 141-78-6

Pennsylvania Right to Know Components

Ethyl acetate CAS-No. 141-78-6

New Jersey Right to Know Components

Ethyl acetate CAS-No. 141-78-6

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA (Toxic Substance Control Act)

Ethyl acetate CAS-No. 141-78-6 is listed on the TSCA Inventory.

International Inventories:

| <u>Country or Region</u> | <u>Inventory Name</u> | <u>On inventory yes/no</u> |
|---|--|-----------------------------------|
| <u>Australia</u> | Australian Inventory of Chemical Substances (AICS) | Yes |
| <u>Canada</u> | Domestic Substances List (DSL) | Yes |
| <u>Canada</u> | Non-Domestic Substances List (NDSL) | No |
| <u>China</u> | Inventory of Existing Chemical Substances in China (IECSC) | Yes |
| <u>Europe</u> | European Inventory of Existing Commercial Chemical Substances (EINECS) | Yes |
| <u>Europe</u> | European List of Notified Chemical Substances (ELINCS) | No |
| <u>Japan</u> | Inventory of Existing and New Chemical Substances (ENCS) | Yes |
| <u>Japan</u> | Industrial Safety & Health Law Inventory (ISHL) | Yes |
| <u>Korea</u> | Existing Chemicals List (ECL) | Yes |
| <u>Mexico</u> | National Inventory of Chemical Substances (INSQ) | Yes |
| <u>New Zealand</u> | New Zealand Inventory | Yes |
| <u>Philippines</u> | Philippine Inventory of Chemicals and Chemical Substances (PICCS) | Yes |
| <u>Switzerland</u> | Inventory of Notified New Substances (CHINV) | Yes |
| <u>Taiwan</u> | National Existing Chemical Inventory (NECI) | Yes |
| <u>United States & Puerto Rico</u> | Toxic Substances Control Act Inventory | Yes |

15.2 CHEMICAL SAFETY ASSESSMENT: A chemical safety assessment has been carried out for this substance.

16. OTHER INFORMATION:

HMIS (Hazardous Materials Identification System)

Hazard Rating:**4-Extreme****3-High****2-Moderate****1-Slight****0-Insignificant**

NFPA RATINGS (SCALE 0-4): **Health=2** **Fire=3** **Reactivity=1**
HMIS RATINGS (SCALE 0-4): **Health=2** **Fire=3** **Reactivity=0** **PPE=G**

Text of hazard statement codes in Section 2 and 3:**H225 Highly flammable liquid and vapor.****H319 Causes serious eye irritation.****H336 May cause drowsiness or dizziness.****Date of preparation-----> April 29, 2002****Revision Number-----> 2.1****Revision Content-----> Updated sections: 1, 2, 4, 5, 7, 8, 10, 11, 12, and 16.****Revision Date-----> January 24, 2019****Prepared by-----> T.G. Fenstermaker Jr.****Acronyms:**

ACGIH - American Conference of Governmental Industrial Hygienists
AIHA - American Industrial Hygiene Association
ANSI - American National Standards Institute
API - American Petroleum Institute
CERCLA - Comprehensive Emergency Response, Compensation, and Liability Act
DOT - U.S. Department of Transportation
EC-50 - Effective Concentration
EPA - U.S. Environmental Protection Agency
HMIS - Hazardous Materials Information System
IARC - International Agency For Research On Cancer
LD-50 - Lethal Dose
MAK - Germany Maximum Concentration Values
MSHA - Mine Safety and Health Administration
NFPA - National Fire Protection Association
NIOSH - National Institute of Occupational Safety and Health
NOIC - Notice of Intended Change (Proposed change to ACGIH TLV)
NTP - National Toxicology Program
OPA - Oil Pollution Act of 1990
OSHA - U.S. Occupational Safety & Health Administration
PEL - Permissible Exposure Limit (OSHA)
RCRA - Resource Conservation and Recovery Act
REL - Recommended Exposure Limit (NIOSH)
SARA - Superfund Amendments and Reauthorization Act of 1986 Title III
SCBA - Self-Contained Breathing Apparatus
STEL - Short-Term Exposure Limit (generally 15 minutes)
TLV - Threshold Limit Value
TSCA - Toxic Substances Control Act
TWA - Time Weighted Average (8hr.)
WHMIS - Canadian Workplace Hazardous Materials Information System

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