

CORCO CHEMICAL CORPORATION

Manufacturers of ACS Reagents and Semiconductor Grade Chemicals

SAFETY DATA SHEET

ETHYL ACETATE

1. IDENTIFICATION

Product identifier: ETHYL ACETATE

Product Code Number: 1101

Company Identification:

Corco Chemical Corporation
299 Cedar Lane
Fairless Hills, PA 19030
Phone: 215-295-5006
Fax: 215-295-0781

24 Hour Emergency Telephone Number:

CHEMTREC (U.S.): 1-800-424-9300
CHEMTREC (Outside U.S. 1-703-527-3887)

Trade Name:

Ethyl Acetate

Synonyms:

None

Chemical Formula:

C₄H₈O₂

Product Use:

Process chemical, Laboratory and scientific research and development

2. HAZARD(S) IDENTIFICATION

Physical hazards:

Flammable liquid and vapors

Category 2

Health hazards:

Skin corrosion/irritation
Serious eye damage/eye irritation
Acute toxicity, Inhalation

Category 2

Category 2A

Category 5

Specific target organ toxicity
single exposure

Category 3

OSHA hazard(s)

Flammable liquid, Target organ effect, Irritant

Target Organs: Blood, Kidneys, Liver, Central nervous system

Label elements



Signal word **Danger**

Hazard statement: WARNING! Flammable liquid and vapor. High vapor concentrations may cause drowsiness and irritation of the eyes or respiratory tract. Prolonged or repeated skin contact may cause drying, cracking or irritation.

Precautionary statement: Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. Composition/information on ingredients

CAS Number: 141-78-6

EC Number: 205-500-4

Index Number: 607-022-00-5

Molecular Weight: 88.11 g/mol

| <u>Ingredient</u> | <u>CAS Number</u> | <u>EC Number</u> | <u>Percent Hazardous</u> | <u>Chemical</u> |
|-------------------|-------------------|------------------|--------------------------|-------------------------------|
| Ethyl Acetate | 141-78-6 | 205-500-4 | 100% Yes | Characterization Substance |

4. First-aid measures

Description of first aid measures:

Inhalation: Treat symptomatically. Move to fresh air. Get medical attention if symptoms persist.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

Skin contact: Wash with soap and water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

Ingestion: Seek medical advice.

Most important symptoms and effects, both acute and delayed:

No data available.

Indication of any immediate medical attention and special treatment needed

Hazards:

Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Treatment: Treat symptomatically.

5. Fire-fighting measures

General fire hazards: Flammable liquid and vapor. USE WATER WITH CAUTION. Material will float and may ignite on surface of water.

Extinguishing media Suitable extinguishing media: Water spray. Dry chemicals. Carbon Dioxide. Foam.

Unsuitable extinguishing media: None known.

Special hazards arising from the substance or mixture: Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup of vapors or gases to explosive concentrations.

Advice for firefighters:

Special Fire Fighting Procedures: Water may be ineffective in fighting the fire. Use water spray to keep fire-exposed containers cool.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: Wear appropriate personal protective equipment.

Environmental precautions: Avoid release to the environment.

Methods and material for containment and cleaning up: Eliminate sources of ignition. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

Large Spillages: Flush spill area with water spray. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

7. Handling and storage

Precautions for safe handling: Avoid breathing high vapor concentrations. Avoid contact with eyes and prolonged or repeated contact with skin. Use only with adequate ventilation. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities: Keep container tightly closed and in a well-ventilated place.

Specific end use(s): Solvent.

8. Exposure controls/personal protection

Control parameters:

Occupational exposure limits: If exposure limits have not been established, maintain airborne levels to an acceptable level.

| <u>Chemical name</u> | <u>Type</u> | <u>Exposure Limit values</u> | <u>Source</u> |
|----------------------|-------------|------------------------------|--|
| ethyl acetate | TWA | 400 ppm US. | ACGIH Threshold Limit Values (01 2010) |

| <u>Chemical name</u> | <u>Type</u> | <u>Exposure Limit values</u> | <u>Source</u> |
|----------------------|-------------|---------------------------------|-----------------------------------|
| | PEL | 400 ppm 1,400 mg/m ³ | US. OSHA Table Z-1 Limits for Air |

Appropriate engineering controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Individual protection measures, such as personal protective equipment:

General information: Eye bath. Washing facilities. Safety shower.

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

Skin and hand protection: It is a good industrial hygiene practice to minimize skin contact. For operations where prolonged or repeated skin contact may occur, chemical-resistant gloves should be worn. Contact health and safety professional or manufacturer for specific information.

Other: No data available.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister. Contact health and safety professional or manufacturer for specific information.

Hygiene measures: Observe good industrial hygiene practices.

Environmental Controls: No data available.

9. Physical and chemical properties

| | |
|---------------------------------------|--------------------|
| Appearance and Physical State: | Liquid |
| Form: | Liquid |
| Color: | Colorless |
| Odor: | Sweet, ester |
| Odor Threshold: | 3.9 ppm |
| pH: | No data available. |

| | |
|---|-----------------------------------|
| Freezing Point: | -83 °C |
| Boiling Point: | 78 °C |
| Flash Point: | -4 °C (Tag closed cup) |
| Evaporation Rate: | 4.1 |
| Flammability (solid, gas): | No data available. |
| Flammability Limit - Upper (%)-: | No data available. |
| Flammability Limit - Lower (%)-: | No data available. |
| Vapor pressure: | 99 mbar (20 °C) |
| Vapor density (air=1): | 3 |
| Specific Gravity: | 0.902 (20 °C) |
| Solubility(ies): | |
| Solubility in Water: | Moderate |
| Solubility (other): | No data available. |
| Partition coefficient (n-octanol/water): | Pow: 5.4 log Pow: 0.73 |
| Autoignition Temperature: | No data available. |
| Decomposition Temperature: | (DTA) No exotherm to 500°C |
| Viscosity: | Not determined. |
| Explosive properties: | No data available. |
| Oxidizing properties: | No data available. |
| Other information: | |
| Minimum ignition temperature: | 485 °C (ASTM D2155) |

10. Stability and reactivity

Reactivity: None known.

Chemical stability: Stable

Possibility of hazardous reactions: None known.

Conditions to avoid: Heat, sparks, flames.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Carbon Dioxide. Carbon Monoxide.

11. Toxicological information

Information on likely routes of exposure:

Inhalation: High vapor concentrations may cause drowsiness. High vapor concentrations may cause irritation of the eyes or respiratory system.

Ingestion: None known.

Skin contact: Prolonged or repeated skin contact may cause drying, cracking, or irritation.

Eye contact: High vapor concentrations may cause irritation of the eyes or respiratory system.

Information on toxicological effects:

Acute Toxicity

Oral

Product: No data available.

Specified substance(s):

Ethyl Acetate Oral LD-50: (Rat): 5,600 mg/kg

Dermal

Product: No data available.

Specified substance(s):

Ethyl Acetate Dermal LD-50: (Rabbit): >20 mL/kg (highest dose tested)

Inhalation

Product: No data available.

Specified substance(s):

Ethyl Acetate LC50: (Rat, 6 h): 16000 ppm

Repeated dose toxicity

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Skin corrosion/irritation:

Product: No data available.

Specified substance(s):

Ethyl Acetate (Rabbit, 24 h): very slight

Serious eye damage/eye irritation:

Product: No data available.

Specified substance(s):

Ethyl Acetate (Rabbit): Slight

Respiratory or skin sensitization:

Product: No data available.

Specified substance(s):

Ethyl Acetate Skin Sensitization: (Human) - Not a skin sensitizer

Germ cell mutagenicity

In vitro

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

In vivo

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Carcinogenicity

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Reproductive toxicity

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Specific target organ toxicity - single exposure

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Specific target organ toxicity - repeated exposure

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Aspiration hazard

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Other adverse effects: No data available.

12. Ecological information

Toxicity:

Acute toxicity

Fish

Product: No data available.

Specified substance(s):

Ethyl Acetate: LC-50 (golden orfe, 48 h): 270 mg/l

LC-50 (golden orfe, 48 h): 333 mg/l

Aquatic invertebrates

Product: No data available.

Specified substance(s):

Ethyl Acetate: LC-50 (daphnid, 24 h): 3,090 mg/l

EC-50 (daphnid, 24 h): 3,090 mg/l

Chronic Toxicity

Fish

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Aquatic invertebrates

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Toxicity to Aquatic Plants

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Persistence and degradability

Biodegradation

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Biological Oxygen Demand:

Product: No data available.

Specified substance(s):

Ethyl Acetate: BOD-5: 1,240 mg/g

BOD-20: 1,240 mg/g

BOD-20: 1,430 mg/g

Chemical Oxygen Demand:

Product: No data available.

Specified substance(s):

Ethyl Acetate: 1,540 mg/g

BOD/COD ratio

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Bioaccumulative potential

Product: No data available.

Specified substance(s):

Ethyl Acetate: No data available.

Mobility in soil: No data available.

Known or predicted distribution to environmental compartments

Ethyl Acetate: No data available.

Results of PBT and vPvB assessment: No data available.

Ethyl Acetate: No data available.

Other adverse effects: No data available.

13. Disposal considerations

Waste treatment methods:

General information: No data available.

Disposal Methods: Dispose of waste and residues in accordance with local authority requirements. Mix with compatible chemical which is less flammable and incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind, or weld on or near this container.

14. Transportation Information

UN Number: UN1173

UN Proper Shipping Name: ETHYL ACETATE

Packing Group: II
Hazard Class: 3

DOT / IMDG / IATA



Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)

Transport Hazard Class(es): 3

Maritime Transport IMDG/GGVSea

Transport Hazard Class(es): 3

Marine Pollutant: No

Air Transport ICAO-TI and IATA-DGR

Transport Hazard Class(es): 3

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

Special Precautions for User: No additional information.

15. Regulatory information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

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

WHMIS (Canada) Status: controlled

WHMIS (Canada) Hazard Classification: B/2

SARA 311-312 Hazard Classification(s):

fire hazard

US EPCRA (SARA Title III) Section 313 - Toxic Chemical List

NONE

OSHA: hazardous

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL. Any impurities present in this product are exempt from listing.

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals

Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

16. Other information

Disclaimer - The information in the sheet was written based on the best knowledge and experience currently available. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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