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SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product name: Eastman(TM) Ethyl Acetate, Urethane Grade

Product No.: EAN 900300. 00054-UG, P0005402, P0005404, P0005407, E00054E1, E00054E2, E00054E3,

P0005401, E00054E4, P0005411, P0005412, P0005413, E00054E5

Synonyms, Trade Names: 00054-UG

Additional identification

Chemical name: ethyl acetate **CAS-No.:** 141-78-6

Relevant identified uses of the substance or mixture and uses advised against

Identified uses: Solvent

Uses advised against: None known.

Details of the supplier of the safety data sheet

Manufacturer / Supplier

Eastman Chemical Company 200 South Wilcox Drive Kingsport, TN 37660-5280 US +14232292000

Visit our website at www.EASTMAN.com or email emnmsds@eastman.com

Emergency telephone number:

For emergency health, safety, and environmental information, call 1-423-229-4511 or 1-423-229-2000.

For emergency transportation information, in the United States: call CHEMTREC at 800-424-9300 or call 423-229-2000.

SECTION 2: Hazards identification

Hazard Classification:

Physical Hazards

Flammable liquids Category 2

Health Hazards

Serious Eye Damage/Eye Irritation Category 2A
Specific Target Organ Toxicity - Category 3

Single Exposure

OSHA Specified Hazards: not applicable

Warning label items including precautionary statement:

Pictogram:



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Signal Words: DANGER!

Hazard Statement(s): H225: Highly flammable liquid and vapor.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

Precautionary Statement:

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.

P280: Wear protective gloves/protective clothing/eye protection/face

protection.

P264: Wash hands thoroughly after handling.

P261: Avoid breathing dust/fume/gas/mist/vapors/spray. P271: Use only outdoors or in a well-ventilated area.

Response: P370 + 378: In case of fire: Use water spray, carbon dioxide, dry chemical

or foam for extinction.

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all

contaminated clothing. Rinse skin with water/shower.

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

rinsing.

P337+P313: If eye irritation persists: Get medical advice/attention. P304+P340: IF INHALED: Remove person to fresh air and keep

comfortable for breathing.

P312: Call a POISON CENTER/doctor if you feel unwell.

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

P233: Keep container tightly closed.

P405: Store locked up.

Disposal: P501: Dispose of contents/container to an appropriate treatment and

disposal facility in accordance with applicable laws and regulations, and

product characteristics at time of disposal.

Hazard(s) not otherwise

classified (HNOC):

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

SECTION 3: Composition/information on ingredients

Substances / Mixtures

General information:



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Chemical name	Concentration	Additional identification	Notes
ethyl acetate	100%	CAS-No.: 141-78-6	#

^{*} All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

SECTION 4: First aid measures

Description of first aid measures

Inhalation: Move to fresh air. Treat symptomatically. 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. In case of irritation from airborne exposure, move to fresh air. Get medical attention if symptoms

persist.

Skin Contact: Wash with soap and water. Get medical attention if symptoms occur.

Ingestion: Seek medical advice.

Most important symptoms and

effects, both acute and

delayed:

May irritate and cause redness and pain.

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.

SECTION 5: Firefighting measures

General Fire Hazards: Flammable liquid and vapor.

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.

SECTION 6: Accidental release measures

[#] This substance has workplace exposure limit(s).



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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.

SECTION 7: Handling and storage:

Precautions for safe handling: Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing.

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

SECTION 8: Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Country specific exposure limits have not been established or are not applicable unless listed below.

Chemical name	Туре	Exposure Limit Values	Source
ethyl acetate	TWA	400 ppm	US. ACGIH Threshold Limit Values (01 2010)
	PEL	400 ppm 1,400 mg/m3	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)

Exposure controls

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). Wear a full-face

respirator, if needed.



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Skin protection

Hand Protection: It is a good industrial hygiene practice to minimize skin contact. For

operations where prolonged or repeated skin contact may occur, chemicalresistant 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: Airpurifying 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.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance

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: 77 °C

Flash Point: -4 °C (Tag closed cup)

Evaporation Rate: 4.1

Flammability (solid, gas):

Flammability Limit - Upper (%)-:

Flammability Limit - Lower (%)-:

Vapor pressure:

No data available.

No data available.

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: 427 °C

Decomposition Temperature: (DTA) No exotherm to 500°C

Dynamic Viscosity: 0.45 mPa.s (20 °C) **Kinematic viscosity:** Not determined.



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Explosive properties: Not classified. **Oxidizing properties:** Not classified.

Other information

Minimum ignition temperature: 485 °C (ASTM D2155)

SECTION 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.

SECTION 11: Toxicological information

Information on likely routes of exposure

Inhalation: May cause drowsiness or dizziness.

Ingestion: None known.

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

Eye contact: Causes serious eye irritation.

Information on toxicological effects

Acute Toxicity

Oral

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

Dermal

Product: Dermal LD-50: (Rabbit): > 20,000 mg/kg

(highest dose tested)

Inhalation

Product: LCLo (Rat, 6 h): > 6000 ppm 22.5 mg/l >

Repeated Dose Toxicity

Product: NOAEL: 900 mg/kg

Skin Corrosion/Irritation:

Product: (Rabbit, 24 h): none

Serious Eye Damage/Eye

Irritation:

Product: (Rabbit): slight ©COPYRIGHT 2014 BY EASTMAN CHEMICAL COMPANY



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Respiratory or Skin

Sensitization:

Product: Skin Sensitization:, (Guinea Pig) - Not a skin sensitizer.

Mutagenicity

In vitro

Product: Salmonella typhimurium assay (Ames test), : negative +/- activation

Mutagenicity - Mammalian, : negative +/- activation

In vivo

Product: Mammalian Erythrocyte Micronucleus Test oral: gavage (Hamster, Male and

Female): negative

Carcinogenicity

Product: This product does not contain any carcinogens or potential carcinogens as listed by

OSHA, IARC or NTP.

Reproductive Toxicity

Product: Based on available data the classification criteria are not met. Not classified as

hazardous.

Specific Target Organ Toxicity - Single Exposure

Product: Inhalation - vapor: May cause drowsiness or dizziness.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Specified substance(s)

ethyl acetate No data available.

Aspiration Hazard

Product: not applicable

Other Adverse Effects: No data available.

SECTION 12: Ecological information

Toxicity

Acute toxicity

Fish

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

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

Aquatic Invertebrates

Product: LC-50 (daphnid, 24 h): 2,500 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.



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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 BOD-5: 1,240 mg/g

BOD-20: 1,240 mg/g BOD-20: 1,430 mg/g

Chemical Oxygen Demand:

Product 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.

SECTION 13: Disposal considerations

Waste treatment methods

General information: No data available.



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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.

SECTION 14: Transport information

Important Note: Shipping descriptions may vary based on mode of transport, quantities, package size, and/or origin and destination. Consult your company's Hazardous Materials/Dangerous Goods expert for information specific to your situation.

DOT

Reportable Quantity: 2,270 kg (Ethyl Acetate) Possible Shipping Description(s):

UN 1173 Ethyl acetate 3 II

IMDG - International Maritime Dangerous Goods Code

Possible Shipping Description(s):

UN 1173 ETHYL ACETATE 3 II

IATA

Possible Shipping Description(s):

UN 1173 Ethyl acetate 3 II

SECTION 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, D/2/B

SARA 311-312 Hazard Classification(s):

immediate (acute) health hazard delayed (chronic) health hazard fire hazard

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

None



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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.

SECTION 16: Other information

HMIS® Hazard Ratings: Health - 1, Flammability - 3, Chemical Reactivity - 0

HMIS® rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

Revision Information: Not relevant.

Key literature references and

sources for data:

No data available.

Training information: No data available.

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SDS No.:

Disclaimer: This information is provided without warranty. The information is believed to

be correct. This information should be used to make an independent determination of the methods to safeguard workers and the environment.