SAFETY DATA SHEET

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

Product identifier
Product name: Ethyl Acetate

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

Alliance Chemical
204 S. Edmond Street
Taylor, TX, 76574, US
+15123656838

Visit our website at www.alliancechemical.com or email alliance@alliancechemical.com

Emergency telephone number:

For emergency transportation information, in the United States: call CHEMTEL at 800-255-3924

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 - Single Exposure	Category 3

OSHA Specified Hazards: not applicable

Warning label items including precautionary statement:

Pictogram:

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:

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

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

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	type	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: It is a good industrial hygiene practice to minimize eye contact. Wear a full-face respirator, if needed.

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, 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.

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:	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
Dynamic viscosity:	No data available.
Kinematic viscosity:	Not determined.

Explosive properties: No data available.
Oxidizing properties: No data available.

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

Oral
Product: Oral LD-50: (Rat): 4,934 mg/kg

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

Inhalation
Product: LCLo (Rat, 6 h): 22.5 mg/l

Repeated dose toxicity
Product: NOAEL (Rat(Male and Female), by gavage): 900 mg/kg LOAEL (Rat(Male and Female), by gavage): 3,600 mg/kg

Skin Corrosion/Irritation
Product: (Rabbit): none

Serious Eye Damage/Eye Irritation
Product: (Rabbit): slight

Respiratory or Skin Sensitization

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

Carcinogenicity

Product: This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.

Toxicity to reproduction

Product: No data available.

Developmental toxicity

Product: No data available.

Germ Cell Mutagenicity

In vitro

Product: Salmonella typhimurium assay (Ames test): negative
Mutagenicity - Mammalian: negative

In vivo

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

Specific Target Organ Toxicity - Single Exposure

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

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: not applicable

Other effects: No data available.

SECTION 12: Ecological information

Ecotoxicity:

Acute hazards to the aquatic environment:

Fish

Product: LC-50 (Fathead Minnow, 96 h): 230 mg/l

Aquatic Invertebrates

Product: EC-50 (daphnid, 48 h): 165 mg/l

Chronic hazards to the aquatic environment:

Fish

Product: NOEC (32 d): 6.3 mg/l

Aquatic Invertebrates
Product: NOEC (daphnid, 21 d): 2.4 mg/l

Toxicity to Aquatic Plants
Product: EC-50 (Scenedesmus subspicatus, 48 h): 5,600 mg/l
NOEC (Algae (Pseudokirchneriella subcapitata), 72 h): 1,000 mg/l

Persistence and Degradability

Biodegradation
Product: Readily biodegradable

BOD/COD Ratio
Product: No data available.

Bioaccumulative Potential
Bioconcentration Factor (BCF)
Product: Potential to bioaccumulate is low.

Partition Coefficient n-octanol / water (log Kow)
Product: Log Kow: 0.73

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

SECTION 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.

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 SDS 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

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 - 2*, 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.

Issue Date: 05/16/2015

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.