

SAFETY DATA SHEET

According to Regulation (EC) No453/2010

SDS -EA-0001

Version 1.5

Revision Date: 02.02.2021

Printing Date: 02.02.2021

www.eamaterials.com

Section 1: IDENTIFICATION OF SUBSTANCE/ MIXTURE AND OF THE COMPANY

1.1 Product identifier

Product name : **Ethyl Acetate**

Included product code : EA010-2.5, EA010-4.0, EA012-2.5, EA012-4.0,
EA011-2.5P, EA011-3.8P, EA011-25M, EA008-2.5P,
EA011-25M, EA008-2.5P, EA008-3.8P

1.2 Relevant identified uses of the substance or mixture

Identified uses : Laboratory chemicals, Manufacture of substances

Uses advised against : Not applicable

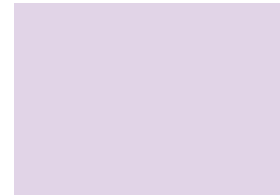
1.3 Details of the supplier of the safety datasheet

Company : Elite Advanced Materials Sdn Bhd
No 1, Jalan KPK1/2, Kawasan Perindustrian
Kundang, 48020 Rawang, Selangor, Malaysia

E-mail address : enquiry@eamaterials.com

1.4 Emergency telephone number

Emergency : +603-60343766 (Local business hours only)



Section 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Flammable liquids	Category 2
Serious Eye Damage/Eye Irritation	Category 2
Specific target organ toxicity (single exposure)	Category 3
Target Organs - Central nervous system (CNS).	

2.2 Label elements

Labeling in compliance to Regulation (EC) No. 1272/2008 [CLP/GHS]

Hazard pictograms



GHS02



GHS07

Signal word

Danger

Hazard statement

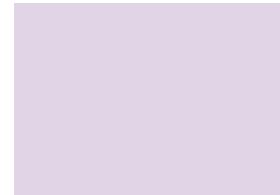
H225	Highly flammable liquid and vapour
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.
EUH066	Repeated exposure may cause skin dryness or cracking.

Precautionary statements

P210	Keep away from heat/ sparks/open flames/hot surfaces. – No smoking
P240	Ground/bond container and receiving equipment.

Response

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

2.3 Other hazards

Repeated exposure may cause skin dryness or cracking.

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Synonyms : Acetic acid ethyl ester, Ethyl ethanoate
 Formula : C₄H₈O₂
 Molecular Weight : 88.11 g/mol
 CAS-No. : 141-78-6

Hazardous components according to Regulation (EC) No 1272/2008

Component	Identity	Classification Code	H-Code	Concentration (by wt)
Ethyl Acetate	CAS-No.: 141-78-6	Flam. Liq. 2	H225	<=100 %
		Eye Irrit. 2	H319	
		STOT CNS 3	H336	

Section 4: FIRST AID MEASURES

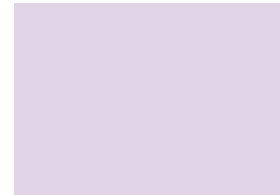
4.1 Description of First Aid measures

General information

Consult a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

If breathed in, move person into fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Consult a physician.



In case of skin contact

Remove contaminated clothing and wash the skin thoroughly with soap and water or a recognized cleaner for at least 15 minutes. Consult a doctor if skin irritation persists.

In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and delayed symptoms and effects

Irritant effects, respiratory paralysis, drowsiness, narcosis, nausea, vomiting, headache, somnolence, salivation, dizziness.

Repeated exposure may cause skin dryness or cracking.

4.3 Indication of any immediate medical attention and special treatment

After swallowing of large amounts: Gastric lavage.

Section 5: FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide (CO₂) is required to extinguish flames.

Unsuitable extinguishing media

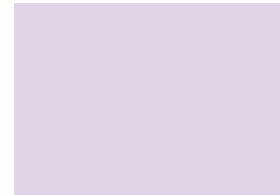
None.

5.2 Special hazards arising from the substance or mixture

Carbon oxides.

Combustible.

Vapours are heavier than air and may spread along floors.



Forms explosive mixtures with air at ambient temperatures.
Development of hazardous combustion gases or vapours possible in the event of fire.

5.3 Advice for fire-fighters

Wear full protective clothing and self-contained breathing apparatus if necessary. Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

5.4 Further information

Use water spray to cool unopened containers. Prevent fire extinguishing water from contaminating surface water or the ground water system.

Section 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Personal protective equipment is required during handling. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas.

6.2 Environmental precautions

Do not discharge into drains or water ways. Prevent further leakage or spillage if safe to do so.

6.3 Methods and material for containment and cleaning up

Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13).

6.4 Reference to other sections

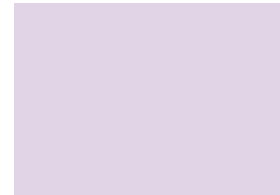
For disposal see Section 13.

Section 7: HANDLING AND STORAGE

7.1 Precaution for safe handling

Prevent contact with skin and eyes. Avoid inhalation of vapour or mist.

Keep away from sources of ignition - No smoking. Take measures to prevent the build-up of electrostatic charge. For precautions see section 2.2.



7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Protected from light.

7.3 Specific end use

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

Section 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Component	ACGIH TLV (8 hr)	CAL/OSHA PEL (8 hr)	NIOSH REL (Up to 10 hr)
Ethyl Acetate	TWA: 400 ppm	TWA: 400 ppm	TWA: 400 ppm

(OSHA)

8.2 Exposure control

Personal protection measures, such as personal protective equipment

Never eat, drink or smoke during handling the chemical. Ensure that there is adequate ventilation, especially in confined areas.

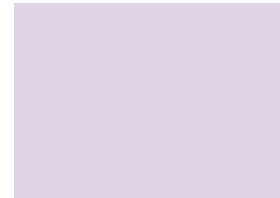
Eye/ face protection

Face shield and safety glasses is required during handling. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Discard of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.



Splash contact*

Material: butyl-rubber

Minimum layer thickness: 0.7 mm

Break through time: > 120 min

Material tested: Butoject® (KCL 897 / Aldrich Z677647, Size M)

(Sigma Aldrich, 2015)

Body protection

Avoid skin contact

Wear appropriate protective clothing

After contact with the product, all parts of the body that have been soiled must be washed.

Respiratory protection

Avoid breathing vapours

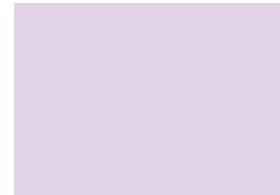
If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they should wear an appropriate, approved, respiratory protection device.

Section 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	:	Liquid
Color	:	Colorless
Odor	:	Fruity
Ordor threshold	:	0.1 – 181.5 ppm
pH - value	:	No data available
Melting point / Range	:	-83.0 °C
Boiling point / Range	:	77 °C at 1013 hPa
Flash point	:	-4 °C [closed cup]
Evaporation rate	:	No data available
Explosion limit - LEL	:	2.1 % (V)
Explosion limit - UEL	:	11.5 % (V)
Vapour pressure	:	97 hPa at 20°C



Vapor density (air = 1)	:	3.04
Density	:	0.90 g/cm ³ at 20 °C
Bulk density	:	No data available
Solubility(ies)	:	No data available
Water solubility	:	85.3 g/l at 20 °C
Partition coefficient: n-octanol/water	:	log Pow: 0.73
Auto-ignition temperature	:	465.0 °C
Decomposition temperature	:	No data available
Viscosity	:	0.44 mPa.s at 20°C
Explosive properties	:	No data available
Oxidising properties	:	No data available

(Merck, 2019; Ver 1.6)

9.2 Other information

Ignition temperature	:	460 °C
		Method: DIN 51794
Minimum ignition energy	:	1.42Mj

Section 10 : STABILITY AND REACTIVITY

10.1 Reactivity

Vapours may form explosive mixture with air

10.2 Chemical stability

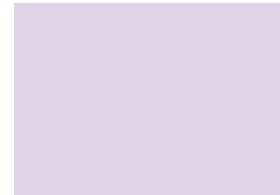
Sensitive to light

Sensitive to air

10.3 Possibility of hazardous reactions

Exothermic reaction with:

Fluorine, chlorosulfonic acid, Strong oxidizing agents, fuming sulfuric acid



Risk of explosion with:

lithium aluminium hydride, Alkali metals, hydrides, Alkaline earth metals

Violent reactions possible with:

Strong acids and strong bases.

10.4 Conditions to avoid

Heat, flames and sparks.

10.5 Incompatible materials

Various plastics.

10.6 Hazardous decomposition products

Other decomposition products - No data available

Section 11 : TOXICOLOGY INFORMATION

11.1 Information on toxicological effects

Acute toxicity

LD50 Oral	- 5620 mg/kg	(Rat)
LD50 Dermal	- >18 000 mg/kg	(Rabbit)
LC50 Inhalation	- No data available	
	-Symptoms: Possible damages; mucosal irritations	

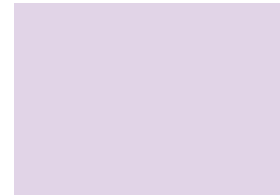
(Merck, 2019; Ver 1.6)

Skin corrosion/irritation

Skin- Rabbit

Remarks : No skin irritation.

(Merck, 2019; Ver 1.6)



Serious eye damage/eye irritation

Remarks : Causes serious eye irritation

(Merck, 2019; Ver 1.6)

Respiratory or skin sensitisation

Maximisation Test Guinea pig

Result: Negative

Method: OECD Test Guideline 406

(Merck, 2019; Ver 1.6)

Germ cell mutagenicity

Genotoxicity in vitro

Amest test

Salmonella typhimurium

Result: Negative

Method: OECD Test Guideline 471

(Merck, 2019; Ver 1.6)

Carcinogenicity

No data available

Reproductive toxicity

No data available

Specific target organ toxicity – single exposure

Remarks : May cause drowsiness and dizziness.

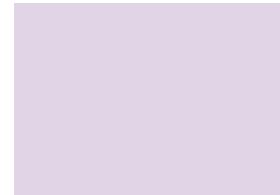
Target organs: Central nervous system

(Merck, 2019; Ver 1.6)

Specific target organ toxicity – repeated exposure

No data available





Aspiration hazard

No data available

11.2 Additional Information

Inhalation of high concentrations may cause: headache, drowsiness, dizziness, vomiting, narcosis, anemia, central nervous system depression.

Section 12 : ECOLOGY INFORMATION

12.1 Ecotoxicity

Toxicity to fish	LC50 – Pimephales promelas (fathead minnow) – 230 mg/L – 4 d
Toxicity to daphnia and other aquatic invertebrates	EC50 – Daphnia magna (Water flea) – 717 mg/L – 48h
Toxicity to algae	IC50 – Desmodesmus subspicatus (green algae) – 3300 mg/L – 48h
Toxicity to bacteria	EC10 – Pseudomonas putida – 2900 mg/l – 16h

(Merck, 2019; Ver 1.6)

12.2 Persistence and degradability

Biodegradability	Result: 100 % - 28 d - Readily biodegradable Method: OECD Test Guideline 301D
Theoretical Oxygen Demand (ThOD)	1820 mg/g

(Merck, 2019; Ver 1.6)

12.3 Bioaccumulative potential

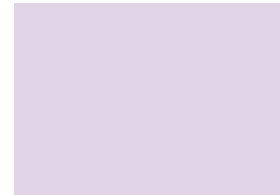
Partition coefficient: n-Octanol/water

Log Pow: -0.24

(Merck, 2019; Ver 1.6)

12.4 Mobility in soil

No data available



12.5 Other adverse effects

No data available

12.6 Other adverse effects

Discharge into the environment must be avoided

Section 13 : DISPOSAL CONSIDERATIONS

13.1 Waste treatment method

Product

Waste material must be disposed according to national and local regulations. Keep the chemicals in its specific waste container according to the waste classification.

According to Quality Environment Regulation (Scheduled Waste) 2005, waste need to be sent to designated premise for recycle, treatment or disposal. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging

Dispose of as unused product.

Section 14 : TRANSPORT INFORMATION

14.1 UN number

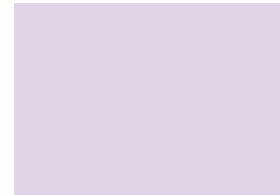
ADR/RID: 1173	IMDG: 1173	IATA-DGR: 1173
---------------	------------	----------------

14.2 UN proper shipping name

ADR/RID:	ETHY ACETATE
IMDG:	ETHY ACETATE
IATA-DGR:	ETHY ACETATE

14.3 Transport hazard class(es)

ADR/RID: 3	IMDG: 3	IATA-DGR: 3
------------	---------	-------------



14.4 Packaging group

ADR/RID: II	IMDG: II	IATA-DGR: II
-------------	----------	--------------

14.5 Environmental hazards

ADR/RID: no	IMDG Marine pollutant: no	IATA-DGR: no
-------------	---------------------------	--------------

14.6 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

14.7 Special precautions for user

No data available

Section 15 : REGULATORY INFORMATION

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

No data available

Section 16 : OTHER INFORMATION

This information is based on present level of our knowledge, however, this shall not constitute a guarantee product features and shall not establish a legally valid contractual relationship.

Abbreviations:

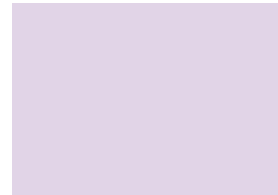
ADR : European agreement concerning the international carriage of dangerous goods by road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association

ICAO : International Civil Aviation Organization

RID : Regulations concerning the International Carriage of Dangerous goods by rail.



Notice to reader

The information contained in this Safety Data Sheet is based on the present state of knowledge and current national legislation. It provides guidance on health, safety and environmental aspects of the products and should not be construed as any guarantee of technical performance or suitability for particular application.

The information contained in this Safety Data Sheet comes from sources believed to be accurate or otherwise technically correct. However, no representation, warranty or guarantee is made as to its accuracy, reliability or completeness. The users are advised to carry out their own evaluation of the material to determine suitability in their application. We do not accept liability for any loss or damage that may occur from the use of this information nor do we offer warranty against patent infringement.

