SAFETY DATA SHEET

(GHS, Appendix 4)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : Ethyl Acetate EC N° : 205-500-4 CAS N° : 141-78-6

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

Industrial-grade aromatic raw material, not intended for retail sale

1.3. Details of the supplier of the safety data sheet

Registered company name : Aromatics Original Material Co., Ltd. Address : 3/8 1st floor Bangwaek Rd, Bangpai, Bangkae, Bangkok 10160 Thailand.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

GHS compliant.

Flammable liquid, Category 2 (Flam. Liq. 2, H225).

Eye irritation, Category 2A (Eye Irrit. 2A, H319).

Specific target organ toxicity (single exposure), Category 3 (STOT SE 3, H336).

This substance does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

GHS compliant.

Hazard pictograms :



GHS07

Signal Word : DANGER Product identifiers (list of classified components) : CAS 141-78-6 ETHYL ACETATE Hazard statements : H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. Precautionary statements - Prevention : P210

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Precautionary statements - 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.

Precautionary statements - Storage :

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

Precautionary statements - Disposal :

P501 Dispose of contents/container in accordance with local regulation.

2.3. Other hazards

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

Composition :

Identification	Classification GHS	Note	%
	GHS02, GHS07 Dgr Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336	[1]	100%

Information on ingredients :

[1] Substance for which maximum workplace exposure limits are available.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of exposure by inhalation :

In the event of massive inhalation, remove the person exposed to fresh air. Keep warm and at rest.

If the person is unconscious, place in recovery position. Notify a doctor in all events, to ascertain whether observation and supportive hospital care will be necessary.

If breathing is irregular or has stopped, effect mouth-to-mouth resuscitation and call a doctor.

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of swallowing :

In the event of swallowing, if the quantity is small (no more than one mouthful), rinse the mouth with water and consult a doctor.

Keep the person exposed at rest. Do not force vomiting.

Seek medical attention, showing the label.

If swallowed accidentally, call a doctor to ascertain whether observation and hospital care will be necessary. Show the label.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Flammable.

Chemical powders, carbon dioxide and other extinguishing gas are suitable for small fires.

5.1. Extinguishing media

Keep packages near the fire cool, to prevent pressurised containers from bursting.

Suitable methods of extinction

In the event of a fire, use :

- sprayed water or water mist
- water with AFFF (Aqueous Film Forming Foam) additive

Prevent the effluent of fire-fighting measures from entering drains or waterways.

Unsuitable methods of extinction

In the event of a fire, do not use :

- water jet

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)

- carbon dioxide (CO2)

5.3. Advice for firefighters

Fire-fighting personnel are to be equipped with autonomous insulating breathing apparatus.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For non first aid worker

Avoid inhaling the vapors.

Avoid any contact with the skin and eyes.

If a large quantity has been spilt, evacuate all personnel and only allow intervention by trained operators equipped with safety apparatus.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Contain and control the leaks or spills with non-combustible absorbent materials such as sand, earth, vermiculite, diatomaceous earth in drums for waste disposal.

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Clean preferably with a detergent, do not use solvents.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the substance is handled.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Ensure that there is adequate ventilation, especially in confined areas.

Fire prevention :

Handle in well-ventilated areas.

Vapours are heavier than air. They can spread along the ground and form mixtures that are explosive with air.

Prevent the formation of flammable or explosive concentrations in air and avoid vapor concentrations higher than the occupational exposure limits.

Prevent the accumulation of electrostatic charges with connections to earth.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Do not use tools which may produce sparks. Do not smoke.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Avoid inhaling vapors. Carry out any industrial operation which may give rise to this in a sealed apparatus.

Provide vapor extraction at the emission source and also general ventilation of the premises.

Also provide breathing apparatus for certain short tasks of an exceptional nature and for emergency interventions.

In all cases, recover emissions at source.

Avoid eye contact with this substance.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the substance is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep the container tightly closed in a dry, well-ventilated place.

Keep away from all sources of ignition - do not smoke.

Keep well away from all sources of ignition, heat and direct sunlight.

Avoid accumulation of electrostatic charges.

The floor must be impermeable and form a collecting basin so that, in the event of an accidental spillage, the liquid cannot spread beyond this area.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Occupational exposure limits :

- European Union (20	022/431, 2019/1831,	2017/2398, 2017	7/164, 2009/161,	2006/15/CE, 200	00/39/CE, 98/24/CE) :	
CAS	VME-mg/m3 :	VME-ppm :	VLE-mg/m3 :	VLE-ppm :	Notes :	
141-78-6	734	200	1468	400	-	
- ACGIH TLV (Ame	rican Conference of (Governmental In	dustrial Hygienis	sts, Threshold Li	mit Values, 2010) :	
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :	
141-78-6	400 ppm					
- South Africa / DME (Department of Minerals and Energy, 2006) :						
- South Africa / DOL	RL (Department of	Labour, Recomm	nended limits, 19	95) :		
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :	

141-78-6	400 ppm 1400 mg/m3					
- Germany - AGW (BAu	A - TRGS 900, 0	2/2022) :				
CAS	VME :	VME :	Excess	Notes		
141-78-6		200 ppm 730 n	ng/m³	2(I)		
- Australia (NOHSC: 300)8, 1995) :					
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :	
141-78-6	200 ppm 720 mg/m3	400 ppm 1440 mg/m3				
- Belgium (Royal decree	of 11/05/2021) :					
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :	
141-78-6	200 ppm 734 mg/m ³	400 ppm 1468 mg/m ³				
- Brazil :						
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :	
141-78-6	310 ppm	-	-	-	-	
- Canada / Alberta (Occu	pational health a	nd safety code, 20	009) :			
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :	
141-78-6	400 ppm 1440 mg/m3					
- Canada / British Colom	bia (2009) :					
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :	
141-78-6	150 ppm					
- Canada / Quebec (Regu	lations on occupa	ational health and	l safety) :			
- China (GBZ 2.1, 2007)	:					
CAS	TWA :	STEL :	Anm :	TWA :	STEL :	
141-78-6	200 mg/m3	300 mg/m3				
- Denmark (2020) :						
Stof	TWA	VSTEL	Loftvaerdi	Anm		
141-78-6	150 ppm 540 mg/m ³			Е		
- France (INRS - Outils 6	55 / 2021-1849, 2	021-1763, decree	e of 09/12/2021)	:		
CAS	VME-ppm :	VME-mg/m3 :	VLE-ppm :	VLE-mg/m3 :	Notes :	TMP No :
141-78-6	200	734	400	1468	-	84
- Finland (HTP-värden 2	018) :					
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :	
141-78-6	200 ppm 730 mg/m ³	400 ppm 1470 mg/m ³				
- Spain (Instituto Naciona	al de Seguridad e	Higiene en el Tr	abajo (INSHT),	2019) :		
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :	
141-78-6	200 ppm 734 mg/m ³	400 ppm 1468 mg/m ³		VLI		
- Greece (90/1999) :						
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :	

141-78-6		400 ppm 1400 mg/m3			
- Hong-Kong (Code of pr	ractice on control	of air impurities	(Chemicals subs	tances) in the wo	orkplace, 04/2002) :
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	400 ppm	-	-	-	-
- Ireland (Code of practic	e for the Chemic	al Agents Regula	tions, 2021) :		
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	200 ppm	400 ppm			
- Japan (JSOH, Recomme	endation of occup	ational exposure	limits 2021-202	2):	
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	200 ppm 720 mg/m ³				
- Latvia (Regulation No.	325/2007) :				
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	200 mg/m3				
- Lithuania (HN 23 :2001):				
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	150 ppm 500 mg/m ³		300 ppm 1100 mgm/ ³		
- Malaysia :					
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	400 ppm	-	-	-	-
- Mexico :					
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	400 ppm	-	-	-	-
- Norway (Veiledning om	administrative n	ormer for forure	nsning i arbeidsa	tmosfære, 2019)	:
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	200 ppm 734 mg/m ³	400 ppm 1468 mg/m ³	C C	E	
- New Zealand (Workplac	ce Exposure stand	dards, 11/2020, e	dition 12-1) :		
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	200 ppm 720 mg/m ³				
- Netherlands / MAC-waa	arde (10 decembe	er 2014) :			
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	150 ppm	300 ppm	-	-	-
- Poland (Dz. U. z 2018 r	. poz. 917, 1000 i	1076) :			
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	734 mg/m ³	1468 mg/m ³	-		
- Czech Republic (Regula	ation No. 361/200)7):			
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :
141-78-6	700 mg/m ³	900 mg/m ³	2	Ι	
- Slovakia (Regulation 30	e e				
CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :

	141-78-6	150 ppm 500 mg/m ³	300 ppm 1 100 mg/m ³							
-	- Slovenia (Uradni List, 04/06/2015) :									
	CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :				
	141-78-6		400 ppm 1400 mg/m ³		Y					
-	Switzerland (Suva 2021)	:								
	CAS	VME	VLE	Valeur plafond	Notations					
	141-78-6	200 ppm 730 mg/m ³	400 ppm 1460 mg/m ³							
-	Sweden (AFS 2018 :1) :									
	CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :				
	141-78-6	150 ppm 550 mg/m ³	300 ppm 1100 mg/m ³							
-	- Romania (Hotarâre 1218	/2006) :								
	CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :				
	141-78-6	111 ppm 400 mg/m3	139 ppm 500 mg/m3							
-	· UK / WEL (Workplace e	xposure limits, E	H40/2005, Four	th Edition 2020)	:					
	CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :				
	141-78-6	200 ppm 734 mg/m ³	400 ppm 1468 mg/m ³							
-	USA / NIOSH REL (Nat	tional Institute for	r Occupational S	afety and Health	Recommended	exposure limits) :				
	CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :				
	141-78-6	400 ppm	-	-	-	-				
•	USA / NIOSH IDLH (Na	ational Institute f	or Occupational	Safety and Healt	h, Immediately I	Dangerous to Life or Health Concentrations) :				
	CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :				
	141-78-6	400 ppm 1400 mg/m3								
-	USA / OSHA PEL (Occu	upational Safety a	and Health Admi	inistration, Permi	ssible Exposure	Limits) :				
	CAS	TWA :	STEL :	Ceiling :	Definition :	Criteria :				
	141-78-6	400 ppm 1400 mg/m3								
0 7	Exposure controls									

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :



Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Use eye protectors designed to protect against liquid splashes

Before handling, wear safety goggles with protective sides accordance with standard EN166.

In the event of high danger, protect the face with a face shield.

Prescription glasses are not considered as protection.

Individuals wearing contact lenses should wear prescription glasses during work where they may be exposed to irritant vapours.

Provide eyewash stations in facilities where the product is handled constantly.

- Hand protection

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN ISO 374-1.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Type of gloves recommended :

- PVA (Polyvinyl alcohol)

- Butyl Rubber (Isobutylene-isoprene copolymer)

- Body protection

Work clothing worn by personnel shall be laundered regularly.

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

- Respiratory protection

Avoid inhaling vapors.

If the ventilation is insufficient, wear appropriate breathing apparatus.

When workers are confronted with concentrations that are above occupational exposure limits, they must wear a suitable, approved, respiratory protection device.

Anti-gas and vapour filter(s) (Combined filters) in accordance with standard EN14387 :

- A1 (Brown)

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

No data available.

Physical state	
Physical state :	Fluid liquid.
Colour	
Unspecified	
Odour	
Odour threshold :	Not stated.
Melting point	
Melting point/melting range :	Not specified.
Freezing point	
Freezing point / Freezing range :	Not stated.
Boiling point or initial boiling point and boiling range	
Boiling point/boiling range :	> 35°C
Flammability	
Flammability (solid, gas) :	Not stated.

Lower and upper explosion limit	
Explosive properties, lower explosivity limit (%) :	Not stated.
Explosive properties, upper explosivity limit (%) :	Not stated.
Flash point	
Flash Point :	-3.00 °C.
	Method for determining the flash point:
	ASTM D 93-15 (Standard Test Methods for Flash Point by Pensky- Martens Closed Cup Tester).
Auto-ignition temperature	
Self-ignition temperature :	Not specified.
Decomposition temperature	
Decomposition point/decomposition range :	Not specified.
рН	
pH :	Not relevant.
pH (aqueous solution) :	Not stated.
Kinematic viscosity	
Viscosity :	Not stated.
Solubility	
Water solubility :	Insoluble.
Fat solubility :	Not stated.
Partition coefficient n-octanol/water (log value)	
Partition coefficient: n-octanol/water :	Not stated.
Density and/or relative density	
Density :	0,892-0,912@20°C
	Method for determining the density :
	NF ISO 279:1999 (T75-111)
Relative vapour density	
Vapour density :	Not stated.
9.2. Other information	
Index of refraction :	1,367-1,377@20°C
	Method of determining the refractive index :
	NF ISO 280:1999 (T75-112)
9.2.1. Information with regard to physical hazard classes	
No data available.	
9.2.2. Other safety characteristics	
No data available.	

No data available.

10.2. Chemical stability

This substance is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the substance can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Any apparatus likely to produce a flame or to have a metallic surface at high temperature (burners, electric arcs, furnaces etc.) must not be allowed on the premises.

Avoid :

- accumulation of electrostatic charges.

- heating

- heat
- flames and hot surfaces

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)

- carbon dioxide (CO2)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Exposure to vapours from this solvent in excess of the stated occupational exposure limit may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on kidney, liver and central nervous system.

Repeated or prolonged contact with the substance may cause removal of natural oil from the skin resulting in non-allergic contact dermatitis and absorption through the skin.

May have reversible effects on the eyes, such as eye irritation which is totally reversible by the end of observation at 21 days.

Splashes in the eyes may cause irritation and reversible damage

Narcotic effects may occur, such as drowsiness, narcosis, decreased alertness, loss of reflexes, lack of coordination or dizziness.

Effects may also occur in the form of violent headaches or nausea, judgement disorder, giddiness, irritability, fatigue or memory disturbance.

11.1.1. Substances

No toxicological data available for the substances.

11.1.2 Complex substance

No toxicological data available for the substances.

11.2. Information on other hazards

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.2 Complex substance

No aquatic toxicity data available for the substances.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Endocrine disrupting properties

No data available.

12.7. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

The appropriate waste management of the substance and/or its container must be determined in accordance with local regulations.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2023 - IMDG 2020 [40-20] - ICAO/IATA 2023 [64]).

14.1. UN number

1173

14.2. UN proper shipping name

UN1173=ETHYL ACETATE

14.3. Transport hazard class(es)



- Classification :

3

14.4. Packing group

II

14.5. Environmental hazards

14.6. Special precautions for user

ADR/RID	Class	Code	Pack gr.	Label	Ident.	LQ	Provis.	EQ	Cat.	Tunnel
	3	F1	II	3	33	1 L	-	E2	2	D/E
IMDG	Class	2°Label	Pack gr.	LQ	EMS	Provis.	EQ	Stowag Handlii	e Segregati	on

	3	-	II	1 L	F-E. S-D	-	E2	Catego B	ŗy	
IATA	Class	2°Label	Pack gr.	Passager	Passager	Cargo	Cargo	note	EQ	
	3	-	II	353	5 L	364	60 L	-	E2	
	3	-	II	Y341	1 L	-	-	-	E2	

For limited quantities, see part 2.7 of the OACI/IATA and chapter 3.4 of the ADR and IMDG.

For excepted quantities, see part 2.6 of the OACI/IATA and chapter 3.5 of the ADR and IMDG.

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

No data available.

SECTION 15 : REGULATORY INFORMATION

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

The following regulations have been used:

- Globally Harmonized System of Classification and Labelling of Chemicals (GHS), review no. 8 (2019)

Container information:

No data available.

Particular provisions :

No data available.

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the substance and not as a guarantee of the properties thereof.

Wording of the phrases mentioned in section 3 :

H225	Highly flammable liquid and vapour.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Abbreviations and acronyms :

STEL : Short-term exposure limit

TWA : Time Weighted Averages

TMP : French Occupational Illness table

TLV : Threshold Limit Value (exposure)

AEV : Average Exposure Value.

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 Organisation

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

GHS02 : Flame

GHS07 : Exclamation mark

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.