

Safety Data Sheet

Release 1.0
Revision 04/15/2022
Date of issue 04/15/2022

1 Identification of the substance

1.1 Product identifier

Identification of the substance Ethyl cyanoacetate

Additional identification Cyanoacetic acid ethyl ester

Catalogue Number FE60340

REACH No. A registration number is not available for this substance as the substance or its uses are exempted from registration or the annual tonnage does not require a registration.

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

Identified uses other biochemicals

Restriction on use not for food or drug use, for laboratory use only

1.3 Details of the supplier of the safety data sheet

Company Carbosynth Ltd
8&9 Old Station Business Park
COMPTON RG20 6NE
Phone +44 1635 578444
Mail customerservice@biosynth-carbosynth.com

1.4 Emergency telephone number

Phone 24hr/7days: +44 118 338 8269

2 Hazards identification

2.1 Classification of the substance or mixture

Physical Hazards

not classified

Health Hazards

Acute toxicity inhalation (Category 4), H332

Acute toxicity dermal (Category 4), H312

Acute toxicity oral (Category 4), H302

Environmental Hazards

not classified

2.2 Label elements

Regulatory List

EC1272/08 Regulation (EC) 1272/2008 (GHS/CLP)

Symbol

GHS07 exclamation mark

Pictogram



Signal Word

Warning Warning

Hazard Statement

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H332 Harmful if inhaled.

Precautionary Statement

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P270 Do not eat, drink or smoke when using this product.

P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove casualty to fresh air and keep at rest in a position comfortable for breathing.
P501	Dispose of contents / container in accordance with local / regional / national / international regulations.

2.3 Other hazards

Caution! To the best of our knowledge the toxicological properties of this material have not been thoroughly investigated.

3 Composition/information on ingredients

Substance related information

<i>Substance name</i>	Ethyl cyanoacetate
<i>Synonyms</i>	Cyanoacetic acid ethyl ester
<i>Cas No.</i>	[105-56-6]
<i>Formula</i>	C ₅ H ₇ NO ₂

4 First aid measures

4.1 Description of first aid measures

First Aid: Eye

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an ophthalmologist.

First Aid: Skin

Wash immediately with plenty of water and soap for at least 15 minutes. Remove contaminated clothing and shoes. Wash contaminated clothes before reuse. Call a physician.

First Aid: Ingestion

Wash out mouth with water provided person is conscious. Call a physician.

4.2 Most important symptoms and effects, both acute and delayed

Hints for Physician: Symptoms

See Section 11 for additional information on health hazards

4.3 Indication of any immediate medical attention and special treatment needed

First Aid: Inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Hints for Physician: Treatment

Treat symptomatically.

5 Firefighting measures

5.1 Extinguishing Media

Suitable

foam, dry extinguishing powder, carbon dioxide (CO₂), water spray jet

5.2 Special hazards arising from the substance or mixture

Wear a self-contained breathing apparatus and chemical protective clothing.

Hazards During Fire-Fighting

toxic fumes

5.3 Fire-Fighting/Further Advice

Do not inhale explosion and combustion gases. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Move undamaged containers from immediate hazard area if it can be done safely.

6 Accidental release measures

6.1 Personal Precautions, protective equipment and emergency procedures

Wear breathing apparatus if exposed to vapours/dusts/aerosols. Provide adequate ventilation.

6.2 Environmental Precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains. Ensure all waste water is collected and treated via a waste water treatment plant.

6.3 Methods and material for containment and cleaning up

not available

6.4 Further Accidental Release Measures

Collect in closed and suitable containers for disposal. Clear contaminated areas thoroughly. Ventilate affected area.

7 Handling and storage**7.1 Precautions for safe handling****Handling advice**

Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Avoid prolonged or repeated exposure. Remove contaminated clothing and wash before reuse. Wash thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities**Storage temperature**

store at 2°C - 8°C

Storage condition

protect from light

Storage Requirements

Keep away from incompatible substances. Keep container tightly closed when not in use.

7.3 Specific end use(s)

8 Exposure controles/personal protection**8.1 Exposure limit values**

Does not contain any substances with occupational exposure limits.

8.2 Exposure controles**Industrial Hygiene**

Mechanical exhaust required. Safety shower and eye shower.

8.3 Personal Protective Equipment**Respiratory Protection**

Wear NIOSH/MSHA or European Standard EN 149 approved respirator.

Hand Protection

Wear compatible chemical-resistant gloves to prevent skin exposure.

Eye Protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA.

Body Protection

Wear compatible chemical-resistant gloves and clothing to prevent skin exposure.

Advice on Safe Handling

Wash contaminated clothing before reuse. Wear appropriate protective clothing to prevent exposure.

9 Physical and chemical properties**9.1 Information on basic Physical and chemical color properties***Form*

clear liquid

Phase Transition Liquid/Gas

208 °C

Density

1.06 g/cm³

Flash Point

110 °C

9.2 Other information*Molar Mass*

113.11 g/mol

10 Stability and reactivity**10.1 Reactivity**

No Data Available

10.2 Chemical stability

No Data Available

10.3 Possibility of hazardous reaction

No Data Available

10.4 Conditions to Avoid (SDS)

incompatible materials, light

10.5 Incompatible materials

strong oxidizers

10.6 Hazardous decomposition productsnitrogen oxides (NO_x), carbon dioxide (CO₂), carbon monoxide**11 Toxicological information****11.1 Information on toxicological effects****Acute Toxicity**

LD50 oral, Rat, > 2,000 mg/kg

Other Relevant Toxicity Information

Only selected Registry of toxic effects of chemical substances (RTECS) data is presented here. For the complete information, consult current entry in RTECS.

12 Ecological Information**12.1 Toxicity**

Acute toxicity versus Fishing	Test Type	Species	Method	Exposure Time	Value in standard unit mg/l
	No data available	No data available	No data available	No data available	No data available
Acute toxicity in aquatic plants	Test Type	Species	Method	Exposure Time	Value in standard unit mg/l
	No data available	No data available	No data available	No data available	No data available
Acute toxicity versus Daphnia and others aquatic invertebrates	Test Type	Species	Method	Exposure Time	Value in standard unit mg/l
	No data available	No data available	No data available	No data available	No data available

12.2 Persistence and degradability

Remarks : no data available

12.3 Bioaccumulative potential

Remarks : no data available

12.4 Mobility in soil

no data available

12.5 Results of PBT and vPvB assessment

no data available

12.6 Other adverse effects

no data available

13 Disposal considerations**Advice on Disposal and Packaging***Advice on Disposal*

Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and Exhaust air. Dispose of waste according to laws applicable.

Advice on Packaging

not available

14 Transport information

	Road Transport(ADR/GGVS)	Air Transport(IATA)
14.1 UN number	3334	3334
14.2 UN proper shipping name	Aviation regulated liquid, n.o.s. (Ethyl cyanoacetate)	Aviation regulated liquid, n.o.s. (Ethyl cyanoacetate)
14.3 Transport hazard class(es)	9	9
14.4 Packing group	III	III
14.5 Environmental hazard class(es)	Not Dangerous Goods	Not Dangerous Goods
14.6 Special precautions for user	Not applicable	Not applicable
14.7 Transport in bulk according to Annex 11 of MARPOL and the IBC code	Not applicable	Not applicable

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

Component	REACH (1907/2006) - Annex XIV - Substances Subject to Authorization	REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances	REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC)
Ethyl cyanoacetate	-----	-----	-----

Regulatory List

EINECS, TSCA, NZIOC, PICCS, AICS, DSL, ENCS, TCSI, IECSC

15.2 Chemical safety assessment

No chemical safety assessment has been carried out.

16 Additional information

BIOSYNTH & CARBOSYNTH provides this MSDS in good faith. No representation is made as to the accuracy or comprehensiveness of the data and BIOSYNTH & CARBOSYNTH shall not be liable for any errors in the data. No representation is made as to the fitness of the data or of the materials for any particular use. No representation or warranty is made as to damages or injury. User assumes all responsibility for compliance with all laws and regulations implicated by use of this material.