

# Safety Data Sheet



## 1. Identification of Substance / Mixture

### Product Identifier

Product Name	Ethyl cyanoacetate
Other Names	Cyanoacetic acid ethyl ester
Product Code	022111
CAS	105-56-6
MDL	MFCD00001940
EINECS	N/A
REACH Registration Number	
Relevant Uses	Research and Development
Uses Advised Against	No uses advised against.

### Supplier Details

Company	Fluorochem Limited
Address	Unit 14, Graphite Way, Hadfield. SK13 1QH. UK
Telephone	+44(0)1457 860111
Email	sds@fluorochem.co.uk
Emergency Telephone	+44(0)1457 860111 (08:00 - 17:30)

## 2. Hazards Identification

Classification Acute Tox. 4

Signal Word

### Warning



GHS07

Hazards

H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H332 Harmful if inhaled.

Precautions

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.  
P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P271 Use only outdoors or in a well-ventilated area.  
P280 Wear face protection.  
P301+P312 IF SWALLOWED: Call a doctor if you feel unwell.  
P302+P352 IF ON SKIN: Wash with plenty of water.  
P312 Call a POISON CENTER/doctor if you feel unwell.  
P321 Specific treatment.  
P330 Rinse mouth.  
P340 Remove person to fresh air and keep comfortable for breathing.  
P362+P364 Take off contaminated clothing and wash it before reuse.

Other Classification Hazards

## 3. Composition of Ingredients

SUBSTANCE

Name	CAS	Einecs	Composition	Hazards
Ethyl cyanoacetate	105-56-6	N/A	<= 100%	H302 Acute Tox. 4 H312 Acute Tox. 4 H332 Acute Tox. 4

## 4. First Aid Measures

Eye contact

Where Diphtherine is not available, rinse eyes with copious amounts of water for at least 20 minutes.

Ingestion

If swallowed rinse the mouth with plenty of water (only if the person is conscious) and contact a poison centre or physician if you feel unwell.

Inhalation

Remove person to fresh air and keep comfortable for breathing. Call a poison centre or physician if you feel unwell. If breathing is irregular or stopped, administer artificial respiration.

Skin Contact

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated clothing immediately. Contact a poison centre or physician if you feel unwell.

No additional advice.

## General Advice

**Most Important Symptoms and Effects**

No known symptoms or effects.

**Immediate First Aid Measures**

No additional first aid measures required.

## 5. Fire Fighting Measures

**Suitable Fire Extinguishing Media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Fire Extinguishing Media**

No known unsuitable media.

**Special Hazards**

Thermal decomposition can lead to release of irritating gases and vapours.

**Advice for Fire Fighters**

As in any fire, wear self-contained breathing apparatus and full protective gear.

## 6. Accidental Release Measures

**Personal Precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Keep personnel away from spill/leak.

**Environmental Precautions**

Do not let product enter drains or waterways. Avoid discharge into the environment.

**Containment - Methods and Materials**

Spill Response should only be carried out by trained or qualified personnel.

**Referenced SDS Sections**

For personal protection see section 8. For disposal see section 13.

## 7. Handling and Storage

### Personal Precautions

**Safe Handling**

Wear appropriate personal protective equipment. Use only under a chemical fume hood ensuring adequate ventilation, especially if dust, aerosol or fumes will be generated. Avoid contact with skin, eyes and clothing. For precautions see section 2.2.

**Protection Against Explosion and Fire**

Where possible, use anti static and spark proof equipment when handling.

**General Occupational Hygiene**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before and after use. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing before re-use.

### Conditions for Safe Storage and Incompatibilities

**Managing Storage Risks**

Keep container tightly closed and upright. Store in a cool, dry and well-ventilated place.

**Storage Controls**

No special requirements

**Maintaining Integrity**

Keep container tightly closed in a cool area away from sunlight or heat sources.

**Other Advice**

No other specific advice available.

**Specific End Use(s)**

No specific end uses are advised. The products supplied are for research purposes only.

## 8. Exposure Controls / Personal Protection

### Control Parameters

Country	Info	Long Term (ppm)	Long Term (mgm3)	Short Term (ppm)	Short Term (mgm3)	Ceiling (ppm)	Ceiling (mgm3)	Other Unit	Remarks
RU							2		
<b>Engineering Measures</b>									
Use only under a chemical fume hood ensuring adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting/equipment. Ensure that eyewash stations and safety showers are close to the workstation location.									
<b>Face Protection</b>									
Wear tightly fitting safety goggles which adhere to European standard EN 166. Ensure eye bath is to hand.									
<b>Hand Protection</b>									
Handle with impermeable gloves. Inspect gloves before use. Gloves must satisfy the specifications of EU Directive 89/686/EEC and the standard EN374 derived from it. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.									
<b>Skin Protection</b>									
Wear appropriate protective clothing ensuring all skin is covered. Wear safety shoes that meet at least S1 standards. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.									
<b>Respiratory Protection</b>									
Product should be handled in a fume cupboard with adequate extraction. No respiratory equipment is needed under normal use conditions.									
<b>Hygiene Protection</b>									
Ensure hair or skin particles cannot enter the chemical container.									
<b>Environment Exposure Controls</b>									
Avoid discharge into the environment, see section 6.2.									

## 9. Physical and Chemical Properties

**State**

Liquid

<b>Appearance</b>	Clear Liquid
<b>Odour</b>	No data available.
<b>Odour Threshold</b>	No data available.
<b>pH</b>	No data available.
<b>Melting Point / Freezing Point</b>	No data available.
<b>Initial Boiling Point</b>	208Â°C
<b>Boiling Range</b>	208Â°C to 210Â°C
<b>Flash Point</b>	110Â°C
<b>Evaporation Rate</b>	No data available.
<b>Flammability</b>	No data available.
<b>Upper / Lower Flammability or Explosion Limits</b>	No data available.
<b>Vapour Pressure</b>	133Pa at 67.8Â°C
<b>Vapour Density</b>	3.9
<b>Relative Density</b>	1.06g/cm3
<b>Solubility</b>	in Ether Alcohol Note: Insoluble in water
<b>Partition Coefficient</b>	No data available.
<b>Auto Ignition Temperature</b>	No data available.
<b>Decomposition Temperature</b>	No data available.
<b>Viscosity</b>	No data available.
<b>Explosive Properties</b>	No data available.
<b>Oxidising Properties</b>	No data available.
<b>Other information</b>	No additional information available

## 10. Stability and Reactivity

<b>Reactivity</b>	No known reactivity, based on information available.
<b>Stability</b>	Stable under recommended storage conditions.
<b>Possibility of Hazardous Reactions</b>	None under normal storage conditions.
<b>Conditions To Avoid</b>	Excess heat. Exposure to moisture.
<b>Incompatible Materials</b>	Strong oxidising agents.
<b>Hazardous Decomposition Products</b>	No Data Available.

## 11. Toxicology Information

<b>Acute Toxicity</b>	No Toxicology data available for this product.
<b>Skin Corrosion / Irritation</b>	No Toxicology data available for this product.
<b>Serious Eye Damage / Irritation</b>	No Toxicology data available for this product.
<b>Respiratory or Skin Sensitisation</b>	No Toxicology data available for this product.
<b>Germ Cell Mutagenicity</b>	No Toxicology data available for this product.
<b>Carcinogenicity</b>	No Toxicology data available for this product.
<b>Reproductive Toxicity</b>	No Toxicology data available for this product.
<b>STOT-single Exposure</b>	No Toxicology data available for this product.
<b>STOT-repeated Exposure</b>	No Toxicology data available for this product.
<b>Aspiration Hazard</b>	No Toxicology data available for this product.
<b>Additional Toxicology Information</b>	No Toxicology data available for this product.

## 12. Ecological Information

<b>Toxicity</b>	No Ecological data available for this product.
<b>Persistence and Degradability</b>	No Ecological data available for this product.
<b>Bio-Accumulative Potential</b>	No Ecological data available for this product.
<b>Mobility in Soil</b>	No Ecological data available for this product.
<b>Results of PBT and vPvB assessment</b>	No Ecological data available for this product.
<b>Endocrine Disrupting Properties</b>	No Ecological data available for this product.
<b>Other Adverse Effects</b>	No Ecological data available for this product.

## 13. Disposal Considerations

### Disposal Operations

Ensure product is disposed of by licensed waste carriers.

### Disposal of Packaging

Ensure INNER PACKAGING is disposed of by licensed waste carriers. Some OUTER PACKAGING MAY be recyclable if not contaminated.

## 14. Transport Information

<b>IATA UN Number</b>	3334	<b>ADR UN Number</b>	3334	<b>IMDG UN Number</b>	3334
<b>IATA Proper Shipping Name</b>	AVIATION REGULATED LIQUID, N.O.S.(Ethyl cyanoacetate)	<b>ADR Proper Shipping Name</b>	Aviation regulated liquid, n.o.s.(Ethyl cyanoacetate)	<b>IMDG Proper Shipping Name</b>	AVIATION REGULATED LIQUID, N.O.S.(Ethyl cyanoacetate)
<b>IATA Packing Group</b>	III	<b>ADR Packing Group</b>	N-S	<b>IMDG Packing Group</b>	-
<b>IATA Hazard Class</b>	9	<b>ADR Hazard Class</b>	9	<b>IMDG Hazard Class</b>	9
<b>IATA Sub Class</b>		<b>ADR Sub Class</b>		<b>IMDG Sub Class</b>	-
				<b>IMDG Special Provisions</b>	
				<b>IMDG IBS Instructions</b>	
				<b>IMDG IBC Instructions</b>	-
				<b>IMDG Tank Instructions</b>	-
				<b>IMDG Tank Provisions</b>	-

## 15. Regulatory Information

### Regulatory Information

As far as Fluorochem is aware, there are no further regulations controlling this product.

### Chemical Safety Assessment

No Chemical Safety Assessment available for this product.

## 16. Other Information

### Information Not Covered in Other Sections

ADR: Accord Europeen sur le transport des marchandises Dangereuses par Route(European Agreement concerning the International Carriage of Dangerous Goods by road)

RID:Reglement International concernant le transport des marchandises dangereuses par chemin de fer (Regulations concerning the International transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the International Air Transport Association ICAO:International Civil Aviation Organization

ICAO-TI: Technical Instructions by the ICAO

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

CAS:Chemical Abstracts Service

### Revision

2.141

### Date Modified

03/11/2022

### Disclaimer

The product listed is for research and development purposes only and not for human or animal use. As such, in most cases, the toxicological, ecological and physicochemical properties have not been fully determined and the product should be treated with respect and always handled under suitable conditions by appropriately qualified personnel. The responsible party shall use this datasheet only in conjunction with other sources of information gathered by them, and should make an independent judgement of suitability, to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this material safety data sheet, or in combination with any other product or process, is the responsibility of the user. This SDS adheres to Regulation (EC) No 1907/2006.