



TRIETHYL ACETYL CITRATE

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

1.1 Product identifier

| | |
|----------------------------|--|
| Product name: | Triethyl Acetyl Citrate |
| Synonyms / trade name: | CITROFOL All, TRIETHYL O-ACETYLCITRATE, TRIETHYL 2-ACETYLOXYPROPANE1,2,3-TRICARBOXYLATE |
| CAS Number: | 77-89-4 |
| EC Number: | 201-066-5 |
| REACH registration number: | 01-2120763425-52-XXXX |
| REACH registration notes: | This product is not classified as hazardous, the information in this datasheet is given for guidance only. |

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

Identified use: Industrial application Cosmetics Pharmaceuticals Paint. Plasticizer

1.3 Details of the supplier of the safety data sheet

| | |
|---------------|---|
| Company name: | East Harbour Group Ltd Miranda House, The Quay Harwich, Essex, CO12 3HH United Kingdom |
| Telephone: | +44 (0) 333 242 0100 |
| Email: | info@eastharbourgroup.com |

1.4 Emergency telephone number

| | |
|----------------------|---------------|
| Emergency telephone: | 0800 246 1274 |
|----------------------|---------------|

Section 2: Hazardous identification

2.1 Classification of the substance or mixture

Classification (EC 1272/2008)

| | |
|------------------------|----------------|
| Physical hazards: | Not Classified |
| Health hazards: | Not Classified |
| Environmental hazards: | Not Classified |

2.2 Label elements

| | |
|------------------|-------------------|
| EC number | 201-066-5 |
| Hazard statement | NC Not Classified |



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2.3 Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

Section 3: Composition/information on ingredients

3.1 Substances

| | |
|---------------------------|--|
| Product name | ACETYLTRIETHYL CITRATE |
| REACH registration number | 01-2120763425-52-XXXX |
| REACH registration notes | This product is not classified as hazardous, the information in this datasheet is given for guidance only. |
| CAS number | 77-89-4 |
| EC number | 201-066-5 |
| Composition comments | The data shown are in accordance with the latest EC Directives. |

Section 4: First aid measures

4.1 Description of first aid measures

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| General information | First aid personnel should wear appropriate protective equipment during any rescue. Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. |
| Inhalation | Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Rinse nose and mouth with water. Get medical attention if any discomfort continues. |
| Ingestion | Rinse mouth thoroughly with water. Do not induce vomiting. Give plenty of water to drink. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if any discomfort continues. |
| Skin contact | Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention promptly if symptoms occur after washing. |
| Eye contact | Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention. |

4.2 Most important symptoms and effects, both acute and delayed

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| Eye contact | May cause temporary eye irritation. |
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4.3 Indication of any immediate medical attention and special treatment needed

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| Notes for the doctor | No specific recommendations. Treat symptomatically. |
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Section 5: Fire-fighting measures

5.1 Fire Fighting Media and Instructions:

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| Suitable extinguishing media | Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. |
| Unsuitable extinguishing media | Do not use water jet as an extinguisher, as this will spread the fire. |

5.2 Special hazards arising from the substance or mixture

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| Special hazards | When heated, vapours/gases hazardous to health may be formed. Keep upwind to avoid inhalation of gases, vapours, fumes and smoke. |
| Hazardous combustion products | Thermal decomposition or combustion products may include the following substances: Carbon dioxide (CO ₂), Carbon monoxide (CO). |

5.3 Advice for firefighters

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| Protective actions during fire | No action shall be taken without appropriate training or involving any personal risk. Evacuate firefighting area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Control run-off water by containing and keeping it out of sewers and watercourses. |
| Special protective equipment | Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective for firefighters clothing. |

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

No action shall be taken without appropriate training or involving any personal risk. Follow precautions for safe handling described in this safety data sheet. Keep unnecessary and unprotected personnel away from the spillage. Approach the spillage from upwind. Provide adequate ventilation. Avoid inhalation of vapours and contact with skin and eyes. Do not touch or walk into spilled material.

6.2 Environmental precautions

Stop leak if safe to do so. Avoid the spillage or runoff entering drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be reported immediately to the Environmental Agency or other appropriate regulatory body

6.3 Methods and material for containment and cleaning up

Avoid the spillage or runoff entering drains, sewers or watercourses. Absorb spillage with inert, damp, non-combustible material. Collect and place in suitable waste disposal containers and seal securely. Clean contaminated objects and areas thoroughly, observing environmental regulations.

6.4 Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. Collect and dispose of spillage as indicated in Section 13.



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Section 7: Handling and storage

7.1 Precautions for safe handling

Usage precautions

Handle all packages and containers carefully to minimise spills. Wear protective clothing as described in Section 8 of this safety data sheet. Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid inhalation of vapours and contact with skin and eyes.

Advice on general occupational hygiene

Do not eat, drink or smoke when using this product. Wash at the end of each work shift and before eating, smoking and using the toilet. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. Provide eyewash station and safety shower.

7.2 Conditions for safe storage, including any incompatibilities

Storage precautions

Keep container tightly closed, in a cool, well ventilated place. Avoid excessive heat for prolonged periods of time. Container must be kept tightly closed when not in use. When exposed to air, this product will absorb moisture. Protect from moisture. Store away from the following materials: Strong oxidising agents

7.3 Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

Section 8: Exposure controls/personal protection

8.1 Control parameters

Ingredient comments
PNEC

No exposure limits known for ingredient(s).

Fresh water; 0.038 mg/l

marine water; 0.004 mg/l

Sediment (Freshwater); 0.22 mg/kg

Soil; 0.03 mg/kg

8.2 Exposure controls

Protective equipment



Appropriate engineering controls

Provide adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls as the primary means to minimise worker exposure. Avoid inhalation of vapours and contact with skin and eyes. Provide eyewash station and safety shower.



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| Eye / face protection | Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. Personal protective equipment for eye and face protection should comply with European Standard EN166. Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. |
| Hand protection | Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. To protect hands from chemicals, gloves should comply with European Standard EN374. The most suitable glove should be chosen in consultation with the glove supplier/manufacturer, who can provide information about the breakthrough time of the glove material. Frequent changes are recommended |
| Other skin and body protection | Wear suitable protective clothing as protection against splashing or contamination. |
| Hygiene measures | Wash at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke. Care should be taken to avoid contact with contaminants when removing contaminated clothing. Wash contaminated clothing before reuse. |
| Respiratory protection | Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is 'CE'-marked. If ventilation is inadequate, suitable respiratory protection must be worn. |

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

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| Appearance | Liquid |
| Colour | Colourless to pale yellow |
| Odor | Characteristic |
| Odor Threshold | No information available |
| pH | No information available |
| Melting Point | -45°C |
| Initial Boiling Point and Range | 131°C @ 1013 hPa |
| Flash Point | 188°C Open cup |
| Evaporation Rate | No information available |
| Evaporation Factor | No information available |
| Flammability (solid, gas) | No information available |
| Upper/lower flammability or explosive limits | No information available |
| Other flammability | No information available |
| Vapor Pressure | 0.01 hPa @ 25°C |
| Vapor Density | No information available |
| Relative density | 1.135 @ 20°C |



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Bulk Density
Solubility(ies)

Partition Coefficient
Auto-ignition temperature
Decomposition temperature
Viscosity

Explosive properties
Explosive under the influence of a flame
Oxidising properties

No information available
Miscible with the following materials: Alcohols.
Slightly soluble in water. 0.07 g/l water @ 20°C
log Pow: 1.34
No information available
No information available
39 mPa s @ 25°C
Not considered to be explosive
No information available
Does not meet the criteria for classification as oxidising.

9.2 Other information

Molecular weight 318.33 g/mol

Section 10: Stability and Reactivity

10.1 Reactivity

There are no known reactivity hazards associated with this product.

10.2 Chemical Stability

Stable at normal ambient temperatures and when used as recommended.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, no hazardous reactions will occur.

10.4 Conditions to avoid

Avoid excessive heat for prolonged periods of time.
Protect from moisture. When exposed to air, this product will absorb moisture.

10.5 Incompatible materials

Materials to avoid: Avoid contact with strong oxidising agents.

10.6 Hazardous decomposition products

Thermal decomposition or combustion products may include the following substances:
Carbon dioxide (CO₂). Carbon monoxide (CO)

Section 11: Toxicological Information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀)

LD₅₀ 7000 mg/kg, Oral, Rat

Acute toxicity - dermal

Notes (dermal LD₅₀)

LD₅₀ > 2000 mg/kg, Dermal, Rabbit Read-across data

Acute toxicity - inhalation

Notes (inhalation LC₅₀)

No specific test data are available.



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| Skin corrosion/irritation | Not irritating. Read-across data. |
| Serious eye damage/irritation | Not irritating. Read-across data. |
| Respiratory sensitisation | No information available. |
| Skin sensitisation | No information available. |
| Germ cell mutagenicity | Ames test: Negative. |
| Genotoxicity - in vitro | No information available. |
| Genotoxicity - in vivo | No information available. |
| Carcinogenicity | No information available. |
| Reproductive toxicity | No information available. |
| Reproductive toxicity - fertility | No information available. |
| Reproductive toxicity development | No information available. |
| Specific target organ toxicity - single exposure | No information available. |
| Specific target organ toxicity - repeated exposure | No information available. |
| Aspiration hazard | No information available. |
| Inhalation | Gas or vapour in high concentrations may irritate the respiratory system. |
| Ingestion | This product has low toxicity. No harmful effects expected from quantities likely to be ingested by accident. May cause discomfort if swallowed. |
| Skin contact | Prolonged skin contact may cause temporary irritation. |
| Eye contact | May cause temporary eye irritation. |

Section 12: Ecological Information

Ecotoxicity

Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1 Toxicity

Acute aquatic toxicity

Acute toxicity – fish

LC₅₀, 96 hour: 38 mg/l, *Lepomis macrochirus* (Bluegill) OECD 203

Read-across data.

LC₅₀, 96 hour: 59 mg/l, Fish Read-across data.



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Acute toxicity - aquatic invertebrates

EC₅₀, 48 hour: 100 mg/l, Daphnia magna
OECD 202

Acute toxicity - aquatic plants

EC₅₀, 72 hour: 100.4 mg/l, Pseudokirchneriella
Subcapitata OECD 201
NOEC, 72 hour: 6 mg/l, Pseudokirchneriella
subcapitata

12.2 Persistence and degradability

Persistence and degradability
Biodegradation

The product is readily biodegradable.
Activated sludge - Degradation 76%: 28 day
OECD 301F

12.3 Bioaccumulative potential

Bioaccumulative potential
Partition coefficient

Bioaccumulation is unlikely
log Pow: 1.34

12.4 Mobility in soil

Mobility

No information available

12.5 Results of PBT and vPvB assessment

This substance is not classified as PBT or vPvB according to current EU criteria.

12.6 Other adverse effects

No information available.

Section 13: Disposal considerations

13.1 Waste treatment methods

General information:

Waste should be treated as controlled waste. Do not puncture or incinerate, even when empty. Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

Disposal methods:

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority

Section 14: Transport Information

The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1 UN number

Not applicable



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14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

No transport warning sign required.

14.4 Packing group

Not applicable

14.5 Environmental hazards

Environmentally hazardous substance/marine pollutant: No

14.6 Special precautions for user

Not applicable

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

Not applicable.

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

Section 15: Regulatory Information

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

EU legislation

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.

15.2 Chemical safety assessment

A chemical safety assessment has been carried out.

Inventories

EU - EINECS/ELINCS

All the ingredients are listed or exempt.