

## 1: Identification of substance / mixture

### 1. Product Identifier

Substance

Product Name **Lactic acid**  
Product Code L17500  
CAS Number 50-21-5  
Other Names  
IUPAC  
MFCD Number  
EC/EINECS 200-018-0  
REACH Number Index-No

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

### 3. Details of the supplier of the safety data sheet

Melford Laboratories Ltd  
Bildeston Road, Chelsworth  
Ipswich  
Suffolk  
IP77LE  
UK



Telephone: 01449 741178  
Fax: 01449 741217  
Email: support@melford.co.uk

### 4. Emergency telephone number

+44(0)1449 741178 -

## 2. Hazards Identification

### 1. Classification of the substance or mixture

H315	Skin Irrit. 2	
H318	Eye Dam. 1	

### 2. Label elements

Signal Word **Danger**



### Hazard Statements

H315	Causes skin irritation.
H318	Causes serious eye damage.

### Precautionary Phrases

P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.

### 3. Other Hazards

Additional precautionary phrases are located throughout the safety data sheet

## 3. Composition / Information on Ingredients

### 1. Substances

Product Name	Hazards	Concentration
Lactic acid		

CAS Number: 50-21-5 H315, H318 Eye Dam. 1, Skin Irrit. 2  
EC/EINECS: 200-018-0

<=100%

## 4. First Aid Measures

### 1. Description of first aid measures

- Skin Contact** P302 + P352: IF ON SKIN: Wash with plenty of soap and water.  
P332 + P313: If skin irritation occurs: Get medical advice/attention.  
Remove all contaminated clothes and footwear immediately unless stuck to skin.  
Drench the affected skin with running water for 10 minutes or longer if substance is still on skin.  
Consult a doctor.
- Eye Contact** P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
Bathe the eye with running water for 15 minutes.  
Ensure adequate flushing by separating the eyelids with fingers  
Transfer to  
Consult a doctor.
- Ingestion** Do not induce vomiting.  
Wash out mouth with water.  
Consult a doctor.
- Inhalation** Remove casualty from exposure ensuring one's own safety whilst doing so.  
If unconscious, check for breathing and apply artificial respiration if necessary.  
If unconscious and breathing is OK, place in the recovery position.  
If conscious, ensure the casualty sits or lies down.  
If breathing becomes bubbly, have the casualty sit and provide oxygen if available.  
Transfer to hospital as soon as possible.

### 2. Most important symptoms and effects

No data available

### 3. Indication of any immediate medical attention

No data available

## 5. Firefighting measures

### 1. Extinguishing Media

- Suitable** Carbon dioxide.  
Alcohol or polymer foam.  
Dry chemical powder.
- Unsuitable** No data available

### 2. Special Hazards arising from the substance or mixture

Corrosive.

### 3. Advice for Fire Fighters

- Wear self-contained breathing apparatus.  
Wear protective clothing to prevent contact with skin and eyes.

## 6. Accidental Release Measures

### 1. Personal Precautions

- Refer to section 8 of SDS for personal protection details.  
Mark out the contaminated area with signs and prevent access to unauthorised personnel.

### 2. Environmental Precautions

- Do not discharge into drains or rivers.  
Contain the spillage using bunding.

### 3. Methods & Materials

- Absorb into dry earth or sand.  
Transfer to a closable, labelled salvage container for disposal by an appropriate method.  
Ventilate area

## 4. Preventing the occurrence of secondary hazards.

Clean up all spills immediately. Wear suitable PPE.

## 7. Handling and Storage

### 1. Personal Precautions

<i>Safe Handling</i>	Ensure there is sufficient ventilation of the area. Avoid direct contact with the substance. P264: Wash hands thoroughly after handling.
<i>Protection against explosions and fires</i>	P362: Take off contaminated clothing and wash before reuse. Normal measures for preventive fire protection.

### 2. Conditions for safe storage, including any incompatibilities

<i>Managing Storage Risks</i>	Store in cool, well ventilated area. Keep container tightly closed.
<i>Storage Controls</i>	No special requirements
<i>Maintaining Integrity</i>	No special requirements
<i>Other advice</i>	no further information available

### 3. Specific End Uses

The end use(s) have not been fully determined. The substance is supplied for Research and Development purposes by professionals only.

## 8. Exposure Controls/Personal Protection

### 1. Control Parameters

No Data Available

### 2. Exposure Controls

<i>General protective and hygiene measures</i>	P280: Wear protective gloves/protective clothing/eye protection/face protection. Avoid contact with skin and eyes Immediately remove any contaminated clothing
<i>Engineering measures</i>	Use only in a chemicals fume hood.
<i>Eye / Face Protection</i>	Safety Glasses with side-shields. Face-shield. Ensure eye bath is to hand. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU)
<i>Hand protection</i>	Protective gloves. 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. Dispose 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
<i>Respiratory protection</i>	Use respiratory protection where risk assessment indicates appropriate
<i>Skin protection</i>	Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
<i>Other personal protection advice</i>	no data

## 9. Physical and Chemical Properties

## 1. Physical and Chemical Properties

Appearance	Liquid
Odour	No Data Available
Odour threshold	No Data Available
PH	No Data Available
Melting point / Freezing point	No Data Available
Initial boiling point and boiling range	No Data Available
Flash point	No Data Available
Evaporation rate	No Data Available
Flammability(solid,gas)	No Data Available
Upper/lower flammability or explosive limits	No Data Available
Vapour pressure	No Data Available
Vapour density	No Data Available
Relative density	1.209
Solubility(ies):	No Data Available
Partition coefficient: n-octanol/water	No Data Available
Auto-ignition temperature	No Data Available
Decomposition temperature	No Data Available
Viscosity	No Data Available
Explosive properties	No Data Available
Oxidising properties	No Data Available

## 2. Other Information

No additional information available

## 10. Stability and Reactivity

### 1. Reactivity

No data available

### 2. Stability

Stable under recommended storage conditions

### 3. Possibility of Hazardous Reactions

No data available

### 4. Conditions to Avoid

No data available

### 5. Incompatible Materials

Bases.  
 Oxidising agents.  
 Strong oxidizing agents.  
 Reducing agents.

### 6. Hazardous Decomposition Products

No data available

## 11. Toxicology information

### 1. Information

<i>Acute Toxicity</i>	Component: Lactic acid LD50 Oral = 3543 mg/kg ( Rat )  LD50 Intravenous >2 g/kg ( Rabbit)
<i>Skin corrosion/irritation</i>	not known
<i>Serious eye Damage/irritation</i>	not known

<i>Respiratory or skin sensitisation</i>	not known
<i>Germ Cell mutagenicity</i>	not known
<i>Carcinogenicity</i>	not known
<i>Reproductive toxicity</i>	not known
<i>STOT-single exposure</i>	not known
<i>STOT-repeated exposure</i>	not known
<i>Aspiration hazard</i>	not known

## 2. Additional

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

## 12. Ecological Information

### 1. Toxicity

not known

### 2. Persistence and degradability

not known

### 3. Bio-Accumulative Potential

not known

### 4. Mobility and Soil

not known

### 5. Results of PBT & vPvB assessment

not known

### 6. Other adverse effects

not known

## 13. Disposal Considerations

### 1. Waste Treatment Methods

*Disposal Operations* Hand over to authorised disposal company as hazardous waste.

*Disposal of Packaging* Disposal must be made according to official regulations.

## 14. Transport Information

### Air (ICAO)

- UN Number:** 3265
- Shipping Name:** Corrosive liquid, acidic, organic, n.o.s.
- Transport hazard class(es):** : 8      **Sub Class :**



- Packing group:** III
- Environmental hazards:**
- Special Precautions for user:**
- Transport in bulk:**

## Road (ADR)

1. **UN Number:** 3265
2. **Shipping Name:** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S (Lactic acid).
3. **Transport hazard class(es):** : 8 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:**

## Sea (IMDG)

1. **UN Number:** 3265
2. **Shipping Name:** Corrosive liquid, acidic, organic, n.o.s.
3. **Transport hazard class(es):** : 8 Sub Class :



4. **Packing group:** III
5. **Environmental hazards:**
6. **Special Precautions for user:**
7. **Transport in bulk:** IBCINS: IBC03

TANKPROV: TP1, TP28

## 15. Safety, health, environmental and national regulations

### 1. Safety, health, environmental and national regulations:

product is not subject to any additional regulations or provisions

### 2. Safety Assessment

No Chemical Safety Assessment

## 16. Other Information

### 1. Other Information:

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

### 2. Associated risk phrases according to European directive 67/548/EEC

### 3. 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.