2051 **DL-Malic Acid**

1. Identification of the substance/preparation and of the company or firm

1.1 Identification of the substance or preparation

Name:
DL-Malic Acid

Synonym:
DL-Hydroxybutanedioic Acid, DL-Hydroxysuccinic Acid

REACH Registration Number: A registration number is not available for this substance as the substance or its use are exempted from registration according to Article 2 REACH Regulation (EC) Nº 1907/2006, the annual tonnage does not requiere a registration, the registration is envisaged for a later registration deadline or it is a mixture.

1.2 Use of the substance/preparation:

For laboratory utilisation, analysis, research and fine chemistry.

1.3 Identification of the company or firm:

PANREAC QUIMICA S.L.U.
C/Garraf 2
Polígono Pla de la Bruguera
E-08211 Castellar del Vallès
(Barcelona) Spain
Tel. (+34) 937 489 400
e-mail: product.safety@panreac.com

1.4 Emergency telephone:

Single telephone number for emergency calls: 112 (EU)
Tel.: (+34) 937 489 499

2. Identification of dangers

Classification of the substance or the mixture.

Classification Regulation (CE) nº 1272/2008.

Eye Irrit. 2

Hazard Pictograms

Signal word
Warning

Hazard statements
H319 Causes serious eye irritation.

Precautionary statements
P264 Wash...thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 If eye irritation persists: Get medical advice/attention.

Classification (67/548/CEE or 1999/45/CE).

Xi	Irritant	R36

For the full text of the R-phrases mentioned in this section, see section 16.

3. Component Composition/Information

Name: DL-Malic Acid
Formula: C4H6O5 M.= 134,09 CAS [617-48-1]
EC number (EINECS): 210-514-9

4. First aid

4.1 General indications:
Never provide drink or induce vomiting in the event of loss of consciousness.

4.2 Inhaling:
Take the person out into the fresh air.

4.3 Contact with the skin:
Wash with plenty of water. Remove contaminated clothing.

4.4 Eyes:
Wash with plenty of water (for at least 15 minutes), keeping eyelids open. In the event of irritation, seek medical assistance.

4.5 Swallowing:
Drink large amounts of water. In the event of sickness, seek medical assistance.

5. Fire-fighting means

5.1 Suitable fire-extinguishing means:
As appropriate to the environment.

5.2 Fire-fighting means which must NOT be used:
No specific data.

5.3 Special risks:
Combustible. Keep away from sources of ignition.

5.4 Protective equipment:
Suitable clothing and footwear.

6. Measures to be taken in the event of accidental spillage

6.1 Individual precautions:
No special indications.

6.2 Precautions for care of the environment:
Avoid pollution of the soil, water supplies and drains.

6.3 Methods for collection/cleaning:
Collect up dry and deposit in waste containers for subsequent elimination in accordance with current legislation. Clean any remains with plenty of water.

7. Handling and storage

7.1 Handling:
No special indications.

7.2 Storage:
Well sealed containers.Dry atmosphere.

8. Staff exposure/protection controls

8.1 Technical protective measures:
No special indications.

8.2 Exposure limit control:
: Data not available.

8.3 Respiratory protection:
If dust forms, use suitable respiratory protection.

8.4 Hand protection:
Use suitable gloves

8.5 Eye protection:
Use suitable goggles.

8.6 Individual hygiene measures:
Remove contaminated clothing. Wash hands before breaks and when the job is done.

8.7 Environmental exposure controls:
Fulfill the commitments under local environmental protection legislation.

9. Physical and chemical properties

Appearance: solid
Colour: White
Granulometry: N/A
Odour: Odourless.
pH: 2,3 (10 g/l sol.)
Melting point/freezing point: 130 °C

Initial boiling point and boiling range:
N/A
Flash point:
N/A
Flammability (solid, gas):
N/A
Upper/lower flammability or explosive limits:
N/A
Vapour pressure: N/A
Vapour density: N/A
Relative density: (20/4) 1,60
Solubility: 1.440 g/l in water20 °C
Partition coefficient: n-octanol/water:
N/A
Auto-ignition temperature:
N/A
Decomposition temperature: 150 °C
Viscosity: N/A

10. Stability and reactivity

10.1 Conditions which should be avoided:
The product is chemically stable under standar ambient conditions (room temperature).

10.2 Matter which should be avoided:
No specific data.

10.3 Hazardous decomposition products:
No specific data.

10.4 Complementary information:
No specific data.

11. Toxicological information

11.1 Acute toxicity:
: Data not available.

11.2 Dangerous effects for health:
The data we have are insufficient for correct toxicological assessment. Based on the physico-chemical properties, the likely dangerous characteristics are: Upon contact with the skin: irritations Through contact with the eyes: irritations No dangerous characteristics are to be anticipated. Take the usual precautions for handling chemical products.

12. Environmental information

12.1 Toxicity:
12.1.1 - EC50 test (mg/l):
Bacteria (Photobacterium phosphoreum) 55,9 mg/l
Classification:
Extr. toxic
12.1.2. - Receptor medium:
Risk for the water environment
Risk for the land environment
12.1.3. - Observations:
The ecotoxicity is due to the pH deviation.

12.2 Persistence and Degradability :
12.2.1 - Test:
BOD5 = 0,468 g/g
12.2.2. - Biotic degradation classification:
ThOD 0,718 mg/l
BOD5/COD
Biodegradability
High, over 1/3
12.2.3. - Abiotic degradation depending on pH:
12.2.4. - Observations:
Biodegradable product.

12.3 Bioaccumulative potential:
12.3.1. - Test:
12.3.2. - Bioaccumulation:
Risk
12.3.3. - Observations:
Non-bioaccumulable product.

12.4 Mobility in soil :
Data not available.

12.5 Assessment PBT and MPMB :
Data not available.

12.6 Other possible effects on the environment:
If suitable handling conditions are maintained, no ecological problems are to be anticipated.

13. Considerations regarding elimination

13.1 Substance or preparation:
In the European Union, there are no homogeneous standards established for elimination of chemical waste, which is waste of a special nature, and treatment and elimination of same is subject to the domestic legislation in each country.
In view of this, in each case, you should contact the competent authority or those companies legally authorized for elimination of waste.
2001/573/EC: Council Decision of 23 July 2001 amending Commission Decision 2000/532/EC as regards the list of wastes.Council Directive 91/156/EEC of 18 March 1991 amending Directive 75/442/EEC on waste.
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13.2 Contaminated containers:
Contaminated containers and packaging of dangerous substances or preparations must be treated in the same manner as the actual products contained in them. European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste.
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14. Information concerning transport

Not classified as dangerous in the meaning of transport regulations.

15. Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

16. Other information

Other precautionary statements

Labelling (65/548/CEE or 1999/45/CE)

R-phrase(s): **R36** Irritating to eyes.

S-phrase(s):

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In respect of the previous review, changes have been made to the following sections: 15
The information included in this Safety Data Sheet is based on our most up-to-date knowledge, and is solely intended to inform regarding aspects of safety; the properties and characteristics indicated herein are not guaranteed.