

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING****1.1 Product identifiers**Product name: **MALONIC ACID**CAS-No.: **141-82-2**Product Number: **A70622****1.2 Relevant identified uses of the substance or mixture and uses advised against**

Identified uses: Laboratory chemicals, Manufacture of substances

**1.3 Details of the supplier of the safety data sheet**

Company : Philip Harris Ltd., 2 Gregory Street, Hyde, Cheshire, SK14 4HR,

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Email: enquiries@philipharris.co.uk

**1.4 Emergency telephone number**Emergency Phone #: **+44 (0)845 1200 506****2. HAZARDS IDENTIFICATION****2.1 Classification of the substance or mixture****According to Regulation (EC) No1272/2008;** Acute toxicity, Oral (Category 4), Serious eye damage (Category 1)**According to European Directive 67/548/EEC as amended:** Risk of serious damage to eyes. Harmful by inhalation and if swallowed.**2.2 Label elements**

Pictogram



Signal word

Danger

**Hazard statement(s):** H302 Harmful if swallowed. H318 Causes serious eye damage.**Precautionary statement(s):** P280 Wear protective gloves/ 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.**According to European Directive 67/548/EEC as amended.**

Hazard symbol(s)

**R-phrases(s):** R41 Risk of serious damage to eyes. R20/22 Harmful by inhalation and if swallowed.

**S-phrases(s):** S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S36/39 Wear suitable protective clothing and eye/face protection.

**2.3 Other hazards** – no data available.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

**Malonic acid** (Synonyms : Propanedioic acid)

Formula:  $\text{CH}_2(\text{COOH})_2$

Molecular Weight: 104.06

CAS-No.: 141-82-2

EC-No.: 205-503-0

### 4. FIRST AID MEASURES

#### 4.1 Description of first aid measures

**General advice:** Consult a physician. Show this safety data sheet to the doctor in attendance.

**If inhaled:** If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact:** Wash off with soap and plenty of water.

**In case of eye contact:** Rinse thoroughly with plenty of water for at least 15 minutes.

**If swallowed:** Never give anything by mouth to an unconscious person. Rinse mouth with water.

**4.2 Most important symptoms and effects, both acute and delayed:** Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

**4.3 Indication of immediate medical attention and special treatment needed:** no data available

### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

**Suitable extinguishing media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**5.2 Special hazards arising from the substance or mixture:** Carbon oxides

**5.3 Precautions for fire-fighters:** Wear self contained breathing apparatus for fire fighting if necessary.

**5.4 Further information:** no data available

### 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures:** Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust.

**6.2 Environmental precautions:** Do not let product enter drains.

**6.3 Methods and materials for containment and cleaning up:** Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.



- g) Flash point: 172 °C - closed cup  
h) Evaporation rate: no data available  
i) Flammability (solid, gas): no data available  
j) Upper/lower flammability or explosive limits: no data available  
k) Vapour pressure: no data available  
l) Vapour density: no data available  
m) Relative density: 1.600 g/cm<sup>3</sup>  
n) Water solubility: no data available  
o) Partition coefficient: n-octanol/water: no data available  
p) Autoignition temperature: no data available  
q) Decomposition temperature: no data available  
r) Viscosity: no data available  
s) Explosive properties: no data available  
t) Oxidizing properties: no data available

**9.2 Other safety information:** Bulk density 0.95 g/l

## 10. STABILITY AND REACTIVITY

**10.1 Reactivity:** no data available

**10.2 Chemical stability:** no data available

**10.3 Possibility of hazardous reactions:** no data available

**10.4 Conditions to avoid:** no data available

**10.5 Incompatible materials:** Bases, Oxidizing agents, Reducing agents

**10.6 Hazardous decomposition products:** Other decomposition products - no data available

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity:** LD<sub>50</sub> Oral - rat - 1,310 mg/kg. Remarks: Behavioural: Convulsions or effect on seizure threshold. Lungs, Thorax, or Respiration: Dyspnoea. Cyanosis

LC<sub>50</sub> Inhalation - rat - 1 h - > 8,989 mg/m<sup>3</sup>

**Skin corrosion/irritation:** Skin - rabbit - Mild skin irritation - 24 h

**Serious eye damage/eye irritation:** Eyes - rabbit - Severe eye irritation

**Respiratory or skin sensitization:** no data available

**Germ cell mutagenicity:** Genotoxicity in vivo - rat – Oral. Morphological transformation.

**Carcinogenicity:** IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity:** no data available

**Specific target organ toxicity - single exposure:** no data available

**Specific target organ toxicity - repeated exposure:** no data available

**Aspiration hazard:** no data available

### Potential health effects

**Inhalation** May be harmful if inhaled. May cause respiratory tract irritation.

**Ingestion** Harmful if swallowed.

**Skin** May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** Causes eye burns.

**Signs and Symptoms of Exposure:** Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting.

**Additional Information:** RTECS: OO0175000

## 12. ECOLOGICAL INFORMATION

**12.1 Toxicity:** Toxicity to fish LC50 - *Lepomis macrochirus* - 150 mg/l - 24 h

Toxicity to daphnia and other aquatic invertebrates.

EC50 - *Daphnia magna* (Water flea) - 275 mg/l - 48 h

**12.2 Persistence and degradability:** no data available

**12.3 Bioaccumulative potential:** 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

### 13.1 Waste treatment methods

**Product:** Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

**Contaminated packaging:** Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### 14.1 UN-Number

ADR/RID: - IMDG: - IATA: -

### 14.2 UN proper shipping name

ADR/RID: Not dangerous goods

IMDG: Not dangerous goods

IATA: Not dangerous goods

### 14.3 Transport hazard class(es)

ADR/RID: - IMDG: - IATA: -

### 14.4 Packaging group

ADR/RID: - IMDG: - IATA: -

### 14.5 Environmental hazards

ADR/RID: no IMDG Marine pollutant: no IATA: no

### 14.6 Special precautions for users

no data available

## 15. REGULATORY INFORMATION

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

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture:** no data available

**15.2 Chemical Safety Assessment:** no data available

## 16. OTHER INFORMATION

no data available