

Safety Data Sheet

according to Regulation (EC) No 1907/2006

21062-69 Citric Acid

Revision date: 27.04.2016

Product code: 2106269

Page 1 of 7

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

21062-69 Citric Acid

CAS No: 77-92-9

EC No: 201-069-1

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.3. Details of the supplier of the safety data sheet**

Company name: HACH LANGE GmbH
Street: Willstätterstr. 11
Place: D-40549 Düsseldorf
Telephone: +49 (0)211 5288-383
e-mail: SDS@hach.com
Internet: www.de.hach.com
Responsible Department: HACH LANGE LTD
Unit 1, Chestnut Road Western Industrial Estate
Dublin 12 - Ireland
Tel. +353 (0)1 4602522 * +353 (0)1 4509337
info-ie@hach.com

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Regulation (EC) No. 1272/2008**

Hazard categories:

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazard Statements:

Causes skin irritation.

Causes serious eye irritation.

2.2. Label elements**Regulation (EC) No. 1272/2008**

Signal word: Warning

Pictograms:

**Hazard statements**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Precautionary statements

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P332+P313 If skin irritation occurs: Get medical advice/attention.

P362 Take off contaminated clothing.

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.

Additional advice on labelling

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

21062-69 Citric Acid

Revision date: 27.04.2016

Product code: 2106269

Page 2 of 7

2.3. Other hazards

None known.

SECTION 3: Composition/information on ingredients**3.1. Substances****Hazardous components**

CAS No	Chemical name			Quantity
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
77-92-9	Citric acid			100 %
	201-069-1			
	Skin Irrit. 2; Eye Irrit. 2; H315 H319			

Full text of H and EUH statements: see section 16.

SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

Take off contaminated clothing and shoes immediately.
Show this safety data sheet to the doctor in attendance.

After inhalation

Move to fresh air.

After contact with skin

Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists, call a physician.

After contact with eyes

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

After ingestion

Do NOT induce vomiting. Drink 1 or 2 glasses of water. Never give anything by mouth to an unconscious person. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

irritant effects

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

5.2. Special hazards arising from the substance or mixture, Carbon monoxide, Carbon dioxide (CO₂).**5.3. Advice for firefighters**

In the event of fire, wear self-contained breathing apparatus.

Additional information

Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

SECTION 6: Accidental release measures

Safety Data Sheet

according to Regulation (EC) No 1907/2006

21062-69 Citric Acid

Revision date: 27.04.2016

Product code: 2106269

Page 3 of 7

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment.

6.2. Environmental precautions

Do not flush into surface water or sanitary sewer system.

6.3. Methods and material for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal.

6.4. Reference to other sections

13. Disposal considerations

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Avoid contact with skin and eyes.

Use only in well-ventilated areas. Do not breathe vapours/dust.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep containers dry and tightly closed to avoid moisture absorption and contamination.

Further information on storage conditions

Keep locked up or in an area accessible only to qualified or authorised persons.

7.3. Specific end use(s)

Laboratory chemicals

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****8.2. Exposure controls****Appropriate engineering controls**

The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Protective and hygiene measures

Wash hands before breaks and at the end of workday.

Eye/face protection

Safety glasses with side-shields

Hand protection

Chemical resistant gloves made of butyl rubber or nitrile rubber category III according to EN 374.

Skin protection

Avoid contact with skin, eyes and clothing.

Respiratory protection

Provide adequate ventilation.

SECTION 9: Physical and chemical properties**9.1. Information on basic physical and chemical properties**

Physical state:	solid
Colour:	white
Odour:	odourless

Test method

pH-Value (at 20 °C):	1,7 (100g/l)
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Safety Data Sheet

according to Regulation (EC) No 1907/2006

21062-69 Citric Acid

Revision date: 27.04.2016

Product code: 2106269

Page 4 of 7

Changes in the physical state

Melting point:	153 °C
Initial boiling point and boiling range:	not applicable
Sublimation point:	no data available
Softening point:	no data available
Pour point:	no data available
Flash point:	not applicable
Sustaining combustion:	No data available

Flammability

Solid:	not applicable
Gas:	not applicable

Explosive properties

not applicable

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	540 °C

Auto-ignition temperature

Solid:	not applicable
Gas:	not applicable

Decomposition temperature:	175 °C
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Oxidizing properties

not applicable

Vapour pressure:	< 0,1 hPa
Vapour pressure:	no data available
Density (at 20 °C):	1,665 g/cm³
Bulk density:	approx. 560 kg/m³
Water solubility: (at 20 °C)	750 g/L

Solubility in other solvents

Alcohol, Diethylether

Partition coefficient:	not applicable
Viscosity / dynamic:	not applicable
Viscosity / kinematic:	not applicable
Flow time:	not applicable
Vapour density:	not applicable
Evaporation rate:	not applicable
Solvent separation test:	not applicable
Solvent content:	not applicable

9.2. Other information

Solid content:	no data available
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SECTION 10: Stability and reactivity**10.1. Reactivity**

Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition

Safety Data Sheet

according to Regulation (EC) No 1907/2006

21062-69 Citric Acid

Revision date: 27.04.2016

Product code: 2106269

Page 5 of 7

source is a potential dust explosion hazard.

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

Reacts with the following substances: Oxidizing agents, Metals, Bases, Reducing agents

10.4. Conditions to avoid

Exposure to moisture.

10.5. Incompatible materials

sodium nitrite, potassium nitrite

10.6. Hazardous decomposition products

no data available

SECTION 11: Toxicological information**11.1. Information on toxicological effects****Acute toxicity**

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
77-92-9	Citric acid				
	oral	LD50 mg/kg	3000	Ratte	

Irritation and corrosivity

Irritating to eyes and skin.

Sensitising effects

No known effect.

Carcinogenic/mutagenic/toxic effects for reproduction

Contains no ingredient listed as a carcinogen

STOT-single exposure

The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure

The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration hazard

No aspiration toxicity classification

Specific effects in experiment on an animal

rabbit skin 500 mg/24 h - Moderate skin irritation

rabbit eye 750 µg/24 h - Severe eye irritation

Further information

Other dangerous properties can not be excluded. Handle in accordance with good industrial hygiene and safety practice.

SECTION 12: Ecological information**12.1. Toxicity**

No data is available on the product itself.

Safety Data Sheet

according to Regulation (EC) No 1907/2006

21062-69 Citric Acid

Revision date: 27.04.2016

Product code: 2106269

Page 6 of 7

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
77-92-9	Citric acid					
	Acute fish toxicity	LC50 mg/l	440-760	96 h	Leuciscus idus (Golden orfe)	
	Acute crustacea toxicity	EC50	160 mg/l	48 h	Crustacea	

12.2. Persistence and degradability

Readily eliminated from water

CAS No	Chemical name			
	Method	Value	d	Source
	Evaluation			
77-92-9	Citric acid			
	OECD Test Guideline 302	98 %	2	IUCLID
	Biochemical Oxygen Demand (BOD)	526 mg/g	5	IUCLID

12.3. Bioaccumulative potential

Bioaccumulation is unlikely.

12.4. Mobility in soil

no data available

12.5. Results of PBT and vPvB assessment

no data available

12.6. Other adverse effects

Discharge into the environment must be avoided.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal number of waste from residues/unused products

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Waste disposal number of used product

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

Waste disposal number of contaminated packaging

160506 WASTES NOT OTHERWISE SPECIFIED IN THE LIST; gases in pressure containers and discarded chemicals; laboratory chemicals, consisting of or containing hazardous substances, including mixtures of laboratory chemicals; hazardous waste

SECTION 14: Transport information

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: no

14.6. Special precautions for user

no data available

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not relevant

SECTION 15: Regulatory information

Safety Data Sheet

according to Regulation (EC) No 1907/2006

21062-69 Citric Acid

Revision date: 27.04.2016

Product code: 2106269

Page 7 of 7

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

EU regulatory information

Additional information

Classification according to EU Directives 67/548/EEC or 1999/45/EC

The product is classified as dangerous in accordance with Regulation (EC) No. 1272/2008.

National regulatory information

Water contaminating class (D): 1 - slightly water contaminating

15.2. Chemical safety assessment

For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

Changes

Revision: 1.09.2015

Safety datasheet sections which have been updated: 8

Relevant H and EUH statements (number and full text)

H315 Causes skin irritation.

H319 Causes serious eye irritation.

Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights.