Citric acid monohydrate

33114H-6X1KG

Version 2.2 Revision Date 06.11.2025 Supersedes 1

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

1.1. Product identifier

Product name	:	Citric acid monohydrate
SDS-number	:	000000020897
Type of product	:	Substance
Remarks	:	SDS according to Art. 31 of Regulation (EC) 1907/2006.
Chemical name	:	Citric acid monohydrate
Index-No.	:	607-750-00-3

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

Use of the Substance/Mixture	:	Laboratory chemicals
Uses advised against	:	none

1.3. Details of the supplier of the safety data sheet

Company	:	Honeywell Specialty Chemicals Seelze GmbH Wunstorfer Straße 40 30926 Seelze Germany	Solstice Advanced Materials US, Inc. 115 Tabor Road Morris Plains, NJ 07950-2546 USA
Telephone	:	(49) 5137-999 0	
For further information, please contact:	:	SafetyDataSheet@solstice.com	

1.4. Emergency telephone number

Emergency telephone number	:	+1-703-527-3887 (ChemTrec-Transport) +1 303-739-1378 (Medical)
	:	Poison Control Center: United Kingdom: (+44) 844 892 0111

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

REGULATION (EC) No 1272/2008

Eye irritation Category 2
H319 Causes serious eye irritation.
Specific target organ toxicity - single exposure Category 3 - Respiratory system
H335 May cause respiratory irritation.

2.2. Label elements

REGULATION (EC) No 1272/2008

Hazard pictograms	:		
Signal word	:	Warning	
Hazard statements	:	H319	Causes serious eye irritation.
		H335	May cause respiratory irritation.
Precautionary statements	:	P261	Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
		P280	Wear protective gloves/ eye protection/ face protection.
		P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
		P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
		P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
		P501	Dispose of contents/ container to an approved waste disposal plant.

2.3. Other hazards

Potential dust explosion hazard. This sample is for research and development purposes only. The

handling and use of this material must be supervised by qualified individuals. The chemical, physical and toxicological properties of this material have not been fully investigated. Use due precaution in handling, storage and disposal. The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher. Product does not contain substances that are persistent, mobile, and toxic (PMT/vPvM) at levels of 0.1 % or higher.

SECTION 3: Composition/information on ingredients

3.1. Substances

Chemical name	CAS-No. Index-No. EC-No.	Classification 1272/2008	Concentration	Remarks
Citric acid monohydrate	5949-29-1 607-750-00-3 201-069-1	Eye Irrit. 2; H319 STOT SE 3; H335	100 %	

3.2. Mixtures

Not applicable

Occupational Exposure Limit(s), if available, are listed in Section 8.
For the full text of the H-Statements mentioned in this Section, see Section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice:
First aider needs to protect himself. Move out of dangerous area. Take off all contaminated clothing immediately.

Inhalation:
Remove to fresh air. Call a physician if irritation develops or persists.

Skin contact:
After contact with skin, wash immediately with plenty of soap and water. Call a physician if irritation develops or persists.

Eye contact:

Rinse thoroughly with plenty of water, also under the eyelids. Protect unharmed eye. Consult a physician.

Ingestion:
When swallowed, allow water to be drunk. Call a physician immediately.

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

No data available

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

Treat symptomatically.

See Section 11 for more detailed information on health effects and symptoms. :

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:
Water spray
Foam
Carbon dioxide (CO2)
Dry powder

Extinguishing media which shall not be used for safety reasons:
High volume water jet

5.2. Special hazards arising from the substance or mixture

Fire may cause evolution of:
carbon oxides (CO, CO2).

5.3. Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Provide adequate ventilation. Avoid dust formation.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Should not be released into the environment. Do not flush into surface water or sanitary sewer system. Do not allow run-off from fire fighting to enter drains or water courses.

6.3. Methods and materials for containment and cleaning up

Use mechanical handling equipment.
Pick for disposal in tightly closed containers

6.4. Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Advice on safe handling:
Wear personal protective equipment. Avoid dust formation. Avoid contact with eyes.

Advice on protection against fire and explosion:
Keep away from heat and sources of ignition.

Hygiene measures:
Remove and wash contaminated clothing before re-use. Wash hands before breaks and at the end of workday. When using do not eat or drink.

7.2. Conditions for safe storage, including any incompatibilities

Further information on storage conditions:
Store in original container. Keep in a dry, cool place. Keep containers tightly closed in a dry, cool and well-ventilated place.

Advice on common storage:
Do not store together with: alkalies Oxidizing agents

7.3. Specific end use(s)

no additional data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Components with workplace control parameters

Contains no substances with occupational exposure limit values.

DNEL/ PNEC-Values

No DNEL-data available.

Component	Environmental compartment / Value	Remarks
Citric acid monohydrate	Fresh water: 0,44 mg/l	Assessment factor: 1000
Citric acid monohydrate	Marine water: 0,044 mg/l	Assessment factor: 10000
Citric acid monohydrate	Sewage treatment plant: 1000 mg/l	Assessment factor: 10
Citric acid monohydrate	Fresh water sediment: 34,6 mg/kg dw	
Citric acid monohydrate	Marine sediment: 3,46 mg/kg dw	
Citric acid monohydrate	Soil: 33,1 mg/kg dw	

8.2. Exposure controls

Occupational exposure controls

Do not breathe dust.
The Personal Protective Equipment must be in accordance with EN standards:respirator EN 136, 140, 149; safety glasses EN 166; protective suit: EN 340, 463, 468, 943-1, 943-2; gloves EN 374, 511;

safety shoes EN-ISO 20345.

Personal protective equipment
Respiratory protection:
In the case of dust or aerosol formation use respirator with an approved filter.

Hand protection:
Glove material: Natural Latex
Break through time: > 480 min
Glove thickness: 0,6 mm
Lapren®706
Gloves must be inspected prior to use.
Replace when worn.
Remarks:Supplementary note: The specifications are based on information and tests from similar substances by analogy.
Due to varying conditions (e.g.temperature or other strains) it must be considered that the usage of a chemical protective glove in practice may be much shorter than the permeation time determined in accordance with EN 374.
Since actual conditions of practical use often deviate from standardised conditions according EN 374 the glove manufacturer reccomends to use the chemical protective glove in practice not longer than 50% of the recomended permeation time.
Manufacturer´s directions for use should be observed because of great diversity of types .
Suitable gloves tested according EN 374 are supplied e.g. from KCL GmbH, D-36124 Eichenzell, Vertrieb@kcl.de

Eye protection:
Safety goggles

Skin and body protection:
Protective suit

Environmental exposure controls

Handle in accordance with local environmental regulations and good industrial practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

(a) Physical state	:	solid
(b) Colour	:	white

(c) Odour	:	odourless
(d) Melting point/freezing point	:	ca. 135 - 152 °C
(e) Boiling point/boiling range	:	No data available
(f) Flammability	:	The product is not flammable.
(g) Lower and upper explosion limit	:	Lower explosion limit Not applicable
	:	Upper explosion limit Not applicable
(h) Flash point	:	Not applicable
(i) Auto-ignition temperature	:	Not applicable not auto-flammable
(j) Decomposition temperature	:	170 °C Decomposition temperature
(k) pH	:	1,8 Concentration: 50 g/l at 20 °C
(l) Viscosity, kinematic	:	No data available
(m) Solubility(ies)	:	Water solubility: ca. 1.630 g/l at 20 °C
(n) Partition coefficient: n-octanol/water	:	log Pow -1,72 at: 20 °C
(o) Vapour pressure	:	No data available
(p) Density and / or relative density	:	ca. 1,54 g/cm3 at 20 °C

(q) Bulk density : ca. 900 kg/m3

(q) Relative vapour density : No data available

(r) Particle characteristics : No data available

9.2 Other Information

Polymer characteristics : No data available

Oxidizing properties : The substance or mixture is not classified as oxidizing.

Evaporation rate : No data available

Viscosity, dynamic : No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended storage conditions.

10.2. Chemical stability

>170 °C
Decomposition temperature

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Avoid dust formation.
To avoid thermal decomposition, do not overheat.

10.5. Incompatible materials

Strong oxidizing agents
Metals
Reducing agents
Alkalis

10.6. Hazardous decomposition products

In case of fire hazardous decomposition products may be produced such as:
Carbon dioxide (CO2)
Carbon monoxide

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

(a) Acute toxicity

Acute oral toxicity:
LD50
Species: Mouse
Value: 5.400 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity:
LD50
Species: Rat
Value: > 2.000 mg/kg
Method: OECD Test Guideline 402

Acute inhalation toxicity:
Not classified due to data which are conclusive although insufficient for classification.

Acute toxicity (other routes of administration):
No data available

(b) Skin corrosion/irritation:
Species: Rabbit
Result: slight irritation
Method: OECD Test Guideline 404

(c) Serious eye damage/eye irritation:
Conclusive and supporting classification (Ref: REACH Dossier - ECHA disseminated data)

(d) Respiratory or skin sensitisation:

No data available

(e) Germ cell mutagenicity:
Note: Not classified due to data which are conclusive although insufficient for classification.

(f) Carcinogenicity:
Species: not specified
Note: No data available

(g) Reproductive toxicity:
Species: not specified
Remarks: Not classified due to data which are conclusive although insufficient for classification.

(h) STOT-single exposure:
Remarks: Classification based on Annex VI of regulation 1272/2008/EC.

(i) STOT - repeated exposure:
No data available

(j) Aspiration hazard:
No data available

11.2. Information on other hazards

Endocrine disrupting properties
No data available

Other information:
Toxicological data applies only to the water free substance.

SECTION 12: Ecological information

12.1. Toxicity

Toxicity to fish:
LC50
Species: Leuciscus idus (Golden orfe)
Value: 440 mg/l
Exposure time: 96 h

Toxicity to aquatic plants:
Not classified due to data which are conclusive although insufficient for classification.

Toxicity to aquatic invertebrates:
LC50
Species: Daphnia magna (Water flea)
Value: 1.535 mg/l
Exposure time: 24 h

12.2. Persistence and degradability

Biodegradability:
Readily biodegradable.

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. Endocrine disrupting properties

No data available

12.7. Other adverse effects

No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product:
Dispose according to legal requirements.

Packaging:
Legal requirements are to be considered in regard of reuse or disposal of used packaging materials

Further information:
Provisions relating to waste:
EC Directive 2006/12/EC; 2008/98/EEC

Regulation No. 1013/2006
For personal protection see section 8.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID:Not dangerous goods IMDG:Not dangerous goods IATA:Not dangerous goods

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)

No data available

14.4 Packaging group

No data available

14.5 Environmental hazards

ADR/RID:no Marine pollutant: no

14.6 Special precautions for user

No data available

14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

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

Basis	Value	Remarks
Substances of very high concern (SVHC)		This product does not contain substances of very high concern according to Regulation (EC) No Article 57 above the respective regulatory 1907/2006 (REACH), concentration limit of ≥ 0.1 % (w/w).
Directive 2012/18/EC		Not applicable

Regulation (EC) No. 1907/2006, Annex XVII Number in Regulation: 75		This product contains an ingredient according to Annex XVII of the REACH Regulation1907/2006/EC.

VOC:
Directive 2010/75/EU of 24 November 2010 on industrial and livestock rearing emissions (integrated pollution prevention and control), 0 %

Other inventory information

USA. List of Active Substances on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory, as amended
On TSCA Inventory

Australia. Inventory of Industrial Chemicals (AIIC), as amended
On the inventory, or in compliance with the inventory

Canada. Domestic Substances List (DSL), as amended
All components of this product are on the Canadian DSL

Japan. Kashin-Hou Law List
On the inventory, or in compliance with the inventory

Korea. Existing Chemicals Inventory (KECI)
On the inventory, or in compliance with the inventory

Philippines. Inventory of Chemicals and Chemical Substances (PICCS)
On the inventory, or in compliance with the inventory

China. Inventory of Existing Chemical Substances (IECSC)
On the inventory, or in compliance with the inventory

New Zealand. Inventory of Chemicals (NZIoC), as published by ERMA New Zealand
On the inventory, or in compliance with the inventory

Taiwan Chemical Substance Inventory (TCSI)
On the inventory, or in compliance with the inventory

15.2 Chemical safety assessment

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

Text of H-statements referred to under heading 3

Citric acid monohydrate	:	H319	Causes serious eye irritation.
		H335	May cause respiratory irritation.

Further information

All directives and regulations refer to amended versions.
Vertical lines in the left hand margin indicate a relevant amendment from the previous version.

Abbreviations:
EC European Community
CAS Chemical Abstracts Service
DNEL Derived no effect level
PNEC Predicted no effect level
vPvB Very persistent and very biaccumulative substance
PBT Persistent, bioaccmulative und toxic substance

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