



# MAATERIAL SAFETY DATA SHEET

## CITRIC ACID

Date of releasing: 10.01.2025.

Date of reviewing: -

Version EN: 1.0



Material Safety Data Sheet in accordance with WE 1907/2006 of 18.12.2006 – REACH and 2020/878 of 18.06.2020.

Substances with endocrine disrupting properties (in accordance with the criteria of Commission Delegated Regulation (EU) 2017/2100, Commission Regulation (EU) 2018/605) – not applicable.

### SECTION 3. Composition/information on ingredients

#### 3.1 Substances.

Product identifier	Amount [%]	Hazard class and category codes	Hazard statement codes and supplementary statements	Specific concentration limit, M-factor, Acute toxicity estimate ATE
CITRIC ACID CAS number: 5949-29-1 EC number: 201-069-1 Index number: - Reach number: 01-2119457026-42-xxxx	100	Eye Irrit. 2;	H319	

Full text of H phrases in section 16.

\*substance with a specific OEL value.

### SECTION 4. First aid measures.

#### 4.1 Description of first aid measures.

In case of skin contact:

Remove all contaminated clothing, wash skin with soap and water, rinse thoroughly with plenty of water. If irritation occurs, contact a physician.

In case of eye contact:

Rinse eyes for several minutes (approx. 15) with plenty of water, keep eyelids wide open. Avoid strong water jet due to the risk of corneal damage, contact a doctor immediately.

In case of inhalation:

In case of dizziness or nausea take affected person to fresh air; if there is no rapid improvement, seek medical advice.

In case of swallowing:

Give plenty of water to drink. Do not induce vomiting, contact with doctor immediately. Do not give anything by mouth to an unconscious person.

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

Eye contact: causes eye irritation.

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

Decision on course of action is made by doctor after assessing of person's condition.

### SECTION 5. Firefighting measures.

#### 5.1 Extinguishing media:

Suitable extinguishing media: dry chemical, carbon dioxide (carbon dioxide extinguisher), sand or earth. Use extinguishing methods appropriate to surrounding conditions.

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Inappropriate extinguishing media: none

5.2 Special hazards arising from the substance or mixture:

During a fire toxic decomposition products are released under influence of high temperatures.

5.3 Advice for firefighters:

Containers should be cooling in fire area with a water spray, if possible remove them from danger area. In case of a fire in a closed room wear protective clothing and a compressed air breathing apparatus. Prevent extinguishing water from entering surface water, ground water and sewage system.

### SECTION 6. Accidental release measures.

6.1 Personal precautions, protective equipment and emergency procedures.

For non-emergency personnel: inform relevant services about accident. Remove from danger area people not involved in elimination of accident. Avoid contact with eyes. For emergency personnel: provide adequate ventilation, use individual protective equipment.

6.2 Environmental precautions.

Prevent spreading and entering drains and water.

6.3 Methods and material for containment and cleaning up.

Prevent spreading and dispose of by mechanical collection into properly labeled containers for disposal in accordance with applicable regulations.

6.4 Reference to other sections.

Waste handling - see section 13.

Personal protective equipment - see section 8.

### SECTION 7. Handling and storage.

7.1 Precautions for safe handling.

Use adequate ventilation. Avoid contact with eyes. Avoid contact with skin. Avoid spillage and dust formation. Avoid inhalation of possible product dust. Work in accordance with safety and hygiene rules: do not eat or drink, do not smoke in the workplace, wash hands after use, remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities.

Store in a cool, dry, well-ventilated room in a properly labeled closed, original container. Avoid direct sunlight and heat sources, hot surfaces surfaces and open flames.

7.3 Specific end use(s).

Uses according to section 1.2 - no additional recommendations.

### SECTION 8. Exposure controls/personal protection.

8.1 Control parameters:

Ensure adequate ventilation.

Maximum allowable concentration values:

*Regulation of the Minister of the Family, Labour and Social Policy of 24 June 2024 on the maximum permissible concentrations and intensities of factors harmful to health in the working environment (Journal of Laws item 1017, as amended).*

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Chemical name and CAS number	NDS [mg/m <sup>3</sup> ]	NDSch [mg/m <sup>3</sup> ]	NDSP [mg/m <sup>3</sup> ]	Notes: labeling of substances with the notation "skin"
Dust not classified due to toxicity, fraction inhalable	10	-	-	-

### DNEL and PNEC values.

No other data.

### 8.2 Exposure controls:

It is necessary to use general ventilation of room and exhaust ventilation.



#### Respiratory protection.

Avoid inhalation of product's dust. In case of high dust concentration use respiratory protection.



#### Hand protection.

Use chemical-resistant protective gloves conforming to EN-PN 374:2005. Use protective creams. Choice of suitable gloves does not depend only on the material but also on brand and quality of resulting from differences between manufacturers. Resistance of glove's material can be determined after carrying out tests. Exact destruction time of gloves must be determined by manufacturer.



#### Eye protection.

Wear safety glasses or face mask (compliant with EN 166).



#### Body protection.

Use protective work clothing (according to EN 344) - wash regularly.

Thermal hazards: not applicable.

Environmental exposure controls: do not allow to spread in the environment and to enter drains and watercourses.

## SECTION 9. Physical and chemical properties.

### 9.1 Information on basic physical and chemical properties.

Physical state	solid
Colour	white
Odour	none
Melting point/freezing point	135-153°C
Boiling point or initial boiling point and boiling range	no data
Flammability	product is not flammable
Lower and upper explosion limit	not applicable
Flash point	not applicable
Auto-ignition temperature	345°C (anhydrous)
Decomposition temperature	not applicable

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pH	1,8 (50g/l H <sub>2</sub> O solution, 20°C)
Kinematic viscosity	not applicable
Solubility	water: 1630g/l in 20°C
Partition coefficient n-octanol/water (log value)	not applicable
Vapour pressure	not applicable
Density and/or relative density	1,54g/cm <sup>3</sup>
Relative vapour density	not applicable
Particle characteristics	not applicable
9.2 Other information:	
Explosives	not applicable
Flammable gases	not applicable
Aerosols	not applicable
Oxidising gases	not applicable
Gases under pressure	not applicable
Flammable liquids	not applicable
Flammable solids	not applicable
Self-reactive substances and mixtures	not applicable
Pyrophoric liquids	not applicable
Self-heating substances and mixtures	not applicable
Substances and mixtures, which emit flammable gases in contact with water	not applicable
Oxidising liquids	not applicable
Oxidizing solids	not applicable
Organic peroxides	not applicable
Corrosive to metals	not applicable
Desensitised explosives	not applicable

### SECTION 10. Stability and reactivity.

10.1 Reactivity:

No data available.

10.2 Chemical stability:

Product stable under normal conditions of use, storage and transportation.

10.3 Possibility of hazardous reactions:

No data available.

10.4 Conditions to avoid:

Avoid higher temperatures, direct sunlight, hot surfaces and open flames.

10.5 Incompatible materials:

Metals, bases, oxidizing and reducing agents.

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10.6 Hazardous decomposition products:

No decomposition under recommended conditions of use and storage. For thermal decomposition products see section 5.

#### SECTION 11. Toxicological information.

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

- |                                      |   |
|--------------------------------------|---|
| a) acute toxicity                    | Based on available data, the classification criteria are not met.<br>LD50 - oral rat: 6730mg/kg |
| b) skin corrosion/irritation         | Based on available data, the classification criteria are not met.                               |
| c) serious eye damage/irritation     | Causes serious eye irritation.  |
| d) respiratory or skin sensitisation | Based on available data, the classification criteria are not met.                               |
| e) germ cell mutagenicity            | Based on available data, the classification criteria are not met.                               |
| f) carcinogenicity                   | Based on available data, the classification criteria are not met.                               |
| g) reproductive toxicity             | Based on available data, the classification criteria are not met.                               |
| h) STOT-single exposure              | Based on available data, the classification criteria are not met.                               |
| i) STOT-repeated exposure            | Based on available data, the classification criteria are not met.                               |
| j) aspiration hazard.                | Based on available data, the classification criteria are not met.                               |

11.2 Information on other hazards.

Substances with endocrine disrupting properties (in accordance with the criteria of Commission Delegated Regulation (EU) 2017/2100, Commission Regulation (EU) 2018/605) – not specified.

#### SECTION 12. Ecological information.

12.1 Toxicity:

Product is not classified as hazardous to environment, however lowering pH has a very adversely affect aquatic organisms. Do not allow to get into groundwater, sewerage and watercourses.

Data for anhydrous substance:

- Fish L.idus LC50: 440 - 760 mg/l/72 h.

- Daphnia magna LC100: approx. 120 mg/l /72h.

12.2 Persistence and degradability:

Biodegradable 97% in 28 days.

12.3 Bioaccumulative potential:

BCF (estimated): 3,2 - no potential for bioaccumulation.

12.4 Mobility in soil:

Log Ko/w: <0 - very low potential for adsorption.

12.5 Results of PBT and vPvB assessment:

Does not meet PBT and vPvB criteria.

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12.6 Endocrine disrupting properties:

No endocrine disruptors.

12.7 Other adverse effects:

No data available.

### SECTION 13. Disposal considerations.

13.1 Waste treatment methods.

Disposal of waste and disposable packaging should be handled by specialized companies. Store residue in original containers. Dispose in accordance with applicable regulations. Dispose of empty, cleaned packaging for disposal (including recycling) in accordance with applicable regulations.

Law dated 8 January 2013 on waste. (Journal of Laws 2013 item 21 as amended)

Law dated 13 June 2013 on the management of packaging and packaging waste. (Journal of Laws 2013 item 888 as amended)

Regulation of the Minister of Climate of January 02, 2020 on the waste catalog (Journal of Laws 2020 item 10 as amended).

### SECTION 14. Transport information.

14.1 UN number or ID number.

Not applicable.

14.2 UN proper shipping name.

Not applicable.

14.3 Transport hazard class(es).

Not applicable.

14.4 Packing group.

Not applicable.

14.5 Environmental hazards.

Not applicable.

14.6 Special precautions for user.

Not applicable.

14.7 Maritime transport in bulk according to IMO instruments.

Not applicable.

### SECTION 15. Regulatory information.

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

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH),

Commission Regulation (EU) 2020/878 of 18 June 2020 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH).

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC and amending Regulation (EC) No 1907/2006 (REACH)

Law dated 24 October 2011 on the transport of hazardous materials (Journal of Laws 227 item 1367 of 2011, as amended),

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Government Statement of 13 March 2023 on the entry into force of the amendments to Annexes A and B to the Agreement concerning the international carriage of dangerous goods by road (ADR), done at Geneva on 30 September 1957.

Law dated 8 January 2013 on waste. (Journal of Laws 2013 item 21 as amended)

Law dated 13 June 2013 on the management of packaging and packaging waste. (Journal of Laws 2013 item 888 as amended),

Announcement of the Minister of Health of 2 March 2015 on the announcement of the consolidated text of the Regulation of the Minister of Health on the labelling of packaging of hazardous substances and hazardous mixtures and certain mixtures (Journal of Laws 2015, item 450)

Law dated 25 February 2011 on chemical substances and their mixtures (Journal of Laws 2011 No. 63 item 322, as amended),

Law dated 26 June 1974 Labour Code (consolidated text: Dz.U. 21 item 94 of 1998 as amended),

Regulation of the Minister of Family, Labour and Social Policy of 24 June 2024 on the maximum permissible concentrations and intensities of factors harmful to health in the work environment (Item 1017 with later amendments).

Regulation of the Minister of Climate of 2 January 2020 on the waste catalogue (Journal of Laws 2020, item 10).

### 15.2 Chemical safety assessment.

No chemical safety assessment.

Annex XIV of REACH Regulation - List of substances subject to authorization: not applicable.

SVHC substances - Candidate list of substances of very high concern awaiting authorization: not applicable.

Annex XVII REACH Regulation - Restrictions on manufacture, placing on the market and use of certain hazardous substances, mixtures and hazardous substances, mixtures and articles: not applicable.

## SECTION 16. Other information.

H phrases:

H319 Causes serious eye irritation.

Description of abbreviations, acronyms and symbols used:

Eye Irrit. 2 - Causes serious eye irritation

NDS – Maximum allowable concentration

NDSP – Maximum allowable ceiling concentration

NDSch – Maximum allowable momentary concentration.

DNEL – Level of exposure to a substance above which humans should not be exposed.

PNEC – concentration of chemical which marks the limit at which below no adverse effects of exposure in ecosystem are measured.

LC50 - (lethal concentration) - median lethal concentration, a statistically determined concentration of a substance, after exposure to which 50 percent of the organisms (exposed to the substance) can be expected to die during the exposure or during a specified contractual post-exposure period.

LD50 - (lethal dose) - medial lethal dose, the statistically determined size of a single dose of a substance, after administration of which 50% of exposed test organisms can be expected to die.

EC50 - (effective concentration) - medial effective concentration, statistically calculated concentration that induces in the environmental medium the specified effect in 50% of the experimental organisms under specified conditions

NOEC (no observed effects concentration) - the highest concentration for which there is no statistically or biologically significant increase in the frequency or severity of the effects of the substance in the test organisms relative to the control sample.

vPvB - Very persistent and very bioaccumulative substance

PBT - persistent, bioaccumulative and toxic substances

ADR – European agreement on the road transport of hazardous goods.

RID – Regulations Concerning the International Carriage of Dangerous Goods by Rail

IMDG – International Maritime Dangerous Goods Code

IATA – Regulation on the transport of dangerous goods issued by the International Air Transport Association

### Trainings:

Before starting work with the product it is mandatory to subject employees to EHS training in connection with the presence of chemical factors in work environment. Conduct, document and familiarize employees with the results of the occupational risk assessment at the work station related to the presence of chemical factors.

### SOURCE MATERIALS:



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Annex to Regulation (EU) 2020/878 of 18 June 2020.

Regulations mentioned in section 15 of the MSDS.

Changes to the previous version:

Section	Description

The information contained in the safety data sheet applies only to the product listed in title. Data contained in safety data sheet should be treated only as an help for safe use of the product. Since conditions of storage, transport and use are beyond our control they cannot constitute a guarantee in the legal sense. In each case the statutory provisions and any rights of third parties must be observed. Safety data sheet does not constitute an assessment of hazards in the workplace. The product should not be used for purposes other than those specified in section 1 without prior consultation with TOMCHEM Sp. z o.o.

End of document.