essedielle
ENOLOGIALIMENTAZIONE

SISTEMA DI GESTIONE PER LA SICUREZZA ALIMENTARE
CQY CERTIQUALITY
UNI EN ISO 22000:2018

OPERATORE CONTROLLATO
S 1262
CERTIFICATO ICEA BIOLOGICO

essedielle srl
Loc. Macinini Fraz. Caldari
66026 Ortona (CH)
Num. REA CH-72915
P.IVA e CF: 00639090695
Codice Univoco SUBM70N
Capitale Sociale € 100.000,00

SAFETY DATA SHEET

MONOHYDRATE CITRIC ACID

Revision No. 12, November 2023; Complies with Reg (EU) 2020/878

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1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND THE MANIFACTURING COMPANY

1.1 Product identification
Trade name: citric acid monohydrate
Chemical name and synonyms: citric acid monohydrate
CAS Number: 5949-29-1
EC Number: 201-069-1
REACH Number: 01-2119457026-42-XXXX

1.2 Relevant identified uses of the substance/mixture and uses not recommended
Food additive, for professional use only.

1.3 Information about the supplier of the safety data sheet
essedielle srl
S.P. 538 km. 6,950 - CALDARI
66026 ORTONA (CH)
ITALY
Phone: +39 (0) 85 9031315
Qualified persons responsible for the safety data sheet: laboratorio@essedielle.com

1.4 Emergency telephone number: essedielle srl +39 (0) 85 9031315 – 0039 3668134126
Poison Control Center
S.S. Annunziata Hospital – Chieti +39 0871 1551219

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture
Caution, Eye Irrit. 2: Causes severe eye irritation.
Physicochemical effects harmful to human health and the environment: no other hazards

2.2 Label elements
Symbols:

Hazard Statements:
H319 Causes severe eye irritation.
Cautionary Statements:
P264 Wash hands thoroughly after use.
P280 Protect eyes/face: wear goggles with side protection.
P305+P351+P338 IF IN EYES: rinse thoroughly for several minutes. Remove any contact lenses if it is convenient to do so. Continue to rinse.
P337+P313 If eye irritation persists, seek medical attention.
Special Provisions: none
Special provisions according to Annex XVII of REACH and subsequent adaptations: none

2.3 Other hazards
vPvB Substances: none - PBT Substances: none
Other hazards
No other dangers.
The use of this chemical agent entails the obligation of "Risk Assessment" by the employer according to the provisions of Legislative Decree No. 81 of April 9, 2008, as amended. Workers exposed to this chemical agent do not have to undergo health surveillance if the results of the

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risk assessment show that, in relation to the type and quantity of the hazardous chemical agent and the manner and frequency of exposure to this agent, there is only a "Moderate Risk" to the health and safety of workers and that the measures provided in the same Dlgs. are sufficient to reduce the risk.

3. COMPOSITION/INGREDIENT INFORMATION

3.1 Substances.
Hazardous components under EC Regulation 1272/2008 (CLP) and their classification: none
Chemical name: citric acid monohydrate
Trade names and synonyms: citric acid monohydrate
CAS Number: 5949-29-1
EC Number: 201-069-1
REACH Number: 01-2119457026-42-XXXX

3.2 Mixtures

Substance	Concentration	CAS	EINECS	REACH	Classification
Citric acid monohydrate	100%	5949-29-1	201-069-1	01-2119457026-42-XXXX	Eye Irrit. 2, H319

4. FIRST AID MEASURES

4.1 Description first aid measures
In case of inhalation: remove the injured person to fresh air. If breathing is difficult give oxygen or practice artificial respiration.
In case of skin contact: remove contaminated clothing immediately. Instantly wash areas of the body that have come in contact with the toxicant, even if only suspected, with plenty of running water and soap if necessary. Wash the body completely (shower or bath).
In case of eye contact: wash immediately with running water with open eyelids for at least 15 minutes. Consult an ophthalmologist. Protect the uninjured eye.
In case of ingestion: induce vomiting. Seek immediate medical attention, showing the safety data sheet.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing means
Suitable extinguishing means
Water spray. Carbon dioxide (CO2).
Extinguishing media that should not be used for safety reasons
None in particular.

5.2 Special hazards from combustion products
Do not inhale the gases produced by the explosion and combustion.

5.3 Recommendations for fire suppression operators
Employ appropriate respiratory equipment. Collect contaminated water used to extinguish the fire separately. Do not discharge it into the sewer system. If feasible from a safety standpoint, move undamaged containers from the immediate danger area.

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5.4 Other information
Water used in firefighting that is contaminated with the product should be disposed of in accordance with local regulations.

6. MEASURES IN CASE OF ACCIDENTAL RELEASE

6.1 Personal precautions, personal protective equipment and emergency procedures
Wear personal protective equipment. Move people to a safe place. Refer to the protective measures set out in section 7 and 8.

6.2 Environmental precautions
Prevent penetration into the soil/subsoil. Prevent runoff into surface water or sewage system.

6.3 Methods and materials for containment and remediation
Small quantities: wash with plenty of water.

6.4. Reference to other sections
See also paragraph 8 and 13.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid skin and eye contact, inhalation of vapors and mists. Do not eat or drink while working. Do not use empty containers before they have been cleaned. Before transfer operations ensure that there are no residual incompatible materials in the containers. Contaminated clothing should be replaced before entering dining areas.
Also refer to section 8 for recommended protective equipment.

7.2 Conditions for safe storage, including any incompatibilities
Keep away from food, drink and feed. Incompatible materials: None in particular. See also the following section 10. Indication for premises: adequately ventilated rooms.

7.3. Specific end uses
None in particular.

8. EXPOSURE CONTROL/INDIVIDUAL PROTECTION

8.1 Control parameters
No occupational exposure limits available
Exposure limit values DNEL: N.A.
Exposure limit values PNEC: N.A.

8.2 Exposure controls

When handling the pure product, wear skin protective clothing (general work dress, S3-EN ISO 20345 safety shoes) or other protective equipment as directed by the RSPP.

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Eye protection
Wear safety glasses with side shields according to EN 166. Operate according to good working practices in any case.

Skin protection
No special precautions are required for normal use.

Hand protection
Use chemical-resistant protective gloves (EN 374-1/EN374-2/EN374-3) When handling the pure product, wear full skin protection clothing (generic/anti-acid work dress, S3-EN ISO 20345 safety shoes) or other protective equipment as directed by the RSPP.

Respiratory protection
During manual operations in case of inadequate ventilation, use mask with dust filter - White, P (EN 143) unless otherwise specified by RSPP and/or environmental hygiene survey assessments.

Thermal hazards
None

Environmental exposure controls
None

9. PHISICAL AND CHEMICAL PROPERTIES

9.1 Information on general physical and chemical properties

Appearance	Cristals
Shape	Granular
Color	White
Odor	None
Olfactory threshold	None
Ph value	1.8 sol 5%
CHANGE OF STATE	
Melting point/interval	153 °C
Boiling point/interval	Not determined
Flash point	Not determined
Flammability (solids, gases)	Not determined
Auto-ignition temperature	Not determined
Decomposition temperature	173 °C
Explosive properties	Not determined
Lower flammability limits	Not determined
Upper flammability limits	Not determined
Vapor pressure at 20°C	Not determined
Density at 20°C	1.542 g/cm^3
Relative density	1.542 g/cm^3
Vapor density at 20°C	Not determined
Evaporation rate	Not determined
Solubility in/Miscibility with water:	880 g/L at 20°C
Specific rotation	Not determined
Partition coefficient: n-octanol/water	Not determined
Dynamic Viscosity at 20 °C	Not determined

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Kinematic Viscosity	Not determined

9.2 Other information

Molecular mass	Not determined
Conductivity	Not determined
Liposolubility	Not determined
Particular properties groups of substances	
Other Useful Information	None

10. STABILITY AND RESPONSIVENESS

10.1 Responsiveness
Under normal conditions, it is completely stable to air and light. It is neither hygroscopic nor efflorescent.

10.2 Chemical stability
Under normal conditions, it is completely stable to air and light. It is neither hygroscopic nor efflorescent.

10.3 Possibility of dangerous reactions
When mixed with ascorbic acid and Potassium Metabisulfite it causes gases Irritating to the eyes and respiratory tract.

10.4 Conditions to be avoided
Do not bring the product to temperatures above 173 °C.

10.5 Incompatible materials
None in particular.

10.6 Hazardous decomposition products
None

11. TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes defined in Regulation (EC) No. 1272/2008
Toxicological information regarding the mixture: the product is non-toxic.

Unless otherwise specified, the data required by Regulation 453/2010/EC below are intended to be undetermined:

CITRIC ACID - CAS: 77-92-9

(a) acute toxicity: not classified. Based on available data, the classification criteria are not met.
Test: LD50 - Route: Oral - Species: Rat = 11700 mg/kg - Notes: (Citric Acid Monohydrate)
Test: LD50 - Route: Intraperitoneal - Species: Rat = 725 mg/kg - Notes: (Citric Acid Monohydrate)
Test: LD50 - Route: Oral - Species: Rat = 5400 mg/kg - Notes: (Citric Acid Monohydrate)
Test: LD50 - Route: Intraperitoneal - Species: Mouse = 940 mg/kg - Notes: (Citric Acid Monohydrate)
Test: LD50 - Route: Intravenous - Species: Mouse = 42 mg/kg - Notes: (Citric Acid Monohydrate)

Test: LD50 - Route: Skin - Species: Rat > 2000 mg/kg - Notes: (Citric Acid Monohydrate)

(b) skin corrosion/irritation: not classified. Based on available data, the classification criteria are not met.
Test: Irritating to eyes - Species: Rabbit Positive - Notes: (Citric Acid Monohydrate)
Test: Irritating to skin - Pathway: Skin - Species: Rabbit Negative

(c) serious eye injury/serious eye irritation: product is classified: Eye Irrit. 2 H319

(d) respiratory or skin sensitization: not classified. Based on available data, the classification criteria are not met.

(e) Germ cell mutagenicity: not classified. Based on available data, the classification criteria are not met.

(f) carcinogenicity Not classified Based on available data, the classification criteria are not met.

(g) reproductive toxicity: not classified Based on available data, the classification criteria are not met.

(h) specific target organ toxicity (STOT) - single exposure: not classified. Based on available data, the classification criteria are not met.

(i) specific target organ toxicity (STOT) - repeated exposure: not classified. Based on available data, the classification criteria are not met.

(j) aspiration hazard: not classified. Based on available data, the classification criteria are not met.

12. ECOLOGICAL INFORMATION

12.1 Toxicity
Use according to good working practices, avoiding spillage into the environment.
Not classified for environmental hazards. Based on available data, the classification criteria are not met.
a) Aquatic toxicity (acute)
Endpoint: LC50 - Species: Fish = 440 mg/l - Duration h: 48 - Note: (Citric Acid Monohydrate)
Endpoint: LC50 - Species: Daphnia = 1535 mg/l - Duration h: 24 - Note: (Citric Acid Monohydrate)
Endpoint: LC50 - Species: Algae = 425 mg/l - Duration h: 168 - Note: (Citric Acid Monohydrate)
Endpoint: LC50 - Species: Bacteria > 10000 mg/l - Duration h: 16 - Note: (Citric Acid Monohydrate)

12.2 Persistence and degradability
N.A.

12.3 Bioaccumulation potential
N.A.

12.4 Mobility in soil
N.A.

12.5 Results of PBT and vPvB assessment
vPvB substances: none - PBT substances: none

12.6 Other adverse effects
None.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
PRODUCT
Inorganic product not to be disposed of through biological treatment systems. Dispose of residues in compliance with current regulations through authorized disposers.
Recover if possible. Operate in accordance with current local and national regulations.

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CONTAMINATED PACKAGING
Empty as best as possible by fully opening them. Dispose of in accordance with the constituent material.

13.2 HP Phrases
None.

14. TRANSPORTATION INFORMATION

14.1 UN Number
Non-dangerous good within the meaning of transport regulations.

14.2 UN proper shipping name
N.A.

14.3 Transport hazard class(es)
N.A.

14.4 Packing group
N.A.

14.5 Environmental hazards Marine pollutant
No

14.6 Special precautions for users
N.A.

14.7 Transport of bulk according to MARPOL Annex II and the IBC Code
N.A.

15. REGULATORY INFORMATION

15.1 Health, safety and environmental regulations and legislation specific to the substance or mixture
Legislative Decree 3/2/1997 No. 52 (Classification, packaging and labeling of dangerous substances)
Legislative Decree 14/3/2003 No. 65 (Classification, packaging and labeling of dangerous preparations)
D.M. Labor 26/02/2004 (Occupational exposure limits)
Ministerial Decree 03/04/2007 (Implementation of Directive No. 2006/8/EC)
Regulation (EC) No. 1907/2006 (REACH)
Regulation (EC) No. 1272/2008 (CLP)
Regulation (EC) No. 790/2009 (ATP 1 CLP)
Regulation (EU) No 453/2010 (Annex I)
Regulation (EU) No 286/2011 (ATP 2 CLP)
Restrictions on the product or substances contained under Annex XVII of the Regulation (EC) 1907/2006 (REACH) and subsequent adaptations: None
Where applicable, please refer to the following regulations:
Ministerial Circulars 46 and 61 (Aromatic Amines).
Legislative Decree No. 238 of September 21, 2005 (Seveso Ter Directive).
EC Regulation No. 648/2004 (Detergents).
Royal Decree January 9, 1927, no. 147 (Toxic Gases)
D.L. 3/4/2006 n. 152 Environmental regulations.

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15.2 Chemical safety assessment
No

16. OTHER INFORMATION

This sheet cancels and replaces any previous edition.

Main bibliographic sources
ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre, Commission of the European Communities.
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition -Van Nostrand Reinold
CCNL - Annex 1
National Institute of Health - National Inventory of Chemical Substances.

Hazard class and category: Eye Irrit. 2
Code 3.3/2
Description: eye irritation, Category 2

The information contained herein is based on our knowledge as of the date above.
It refers only to the product indicated and does not constitute a guarantee of any particular quality.
The user is responsible for ensuring the suitability and completeness of this information in relation to the specific use to be made of it.

LEGEND SYMBOLS
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.
CAS: Service of the Chemical Abstract (division of the American Chemical Society).
CLP: Classification, Labeling, Packaging.
DNEL: Derived no-effect level.
EINECS: European inventory of existing chemicals on the market.
GefStoffVO: Ordinance on hazardous substances, Germany.
GHS: General harmonized system of classification and labeling of chemicals.
IATA: International Air Transport Association.
IATA-DGR: Regulations for the transportation of dangerous goods of the "International Air Transport Association"(IATA).
ICAO: International Civil Aviation Organization.
ICAO-TI: Technical Instructions of the "International Civil Aviation Organization"(ICAO).
IMDG: International Maritime Dangerous Goods Code.
INCI: International nomenclature of cosmetic ingredients.
KSt: Coefficient of explosion.
LC50: Lethal concentration for 50 percent of the population tested.
LD50: Lethal dose for 50 percent of the population tested.
N.A.: Not Available
PNEC: Predicted no-effect concentration.
RID: Regulations concerning the international transport of dangerous goods by rail.
STE: Short-term exposure.
STEL: Short-term exposure limit.
STOT: Specific target organ toxicity.
TLV: Threshold limit value.
TWATLV: Threshold limit value for an 8-hour weighted average exposure per day. (ACGIH standard).
WGK: German water hazard class.