SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING.

1.1 Product identifier.

Product Name: CITRIC ACID MONOHYDRATE
Product Code: MP018
Chemical Name: Citric acid
CAS No: 5949-29-1
Registration No: 01-2119457026-42-xxxx

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

Natural acidifier used in food processing industry.

Uses advised against:
Uses other than those recommended.

1.3 Details of the supplier of the safety data sheet.

Company: PRODUCTOS AGROVIN S.A.
Address: Avda. de los Vinos S.N.
City: 13600 - Alcázar de San Juan
Province: Ciudad Real (ESPAÑA)
Telephone: + 34 926 55 02 00
Fax: + 34 926 54 62 54
E-mail: calidad@agrovin.com
Web: www.agrovin.com

1.4 Emergency telephone number: + 34 926 55 02 00 (Only available during office hours)

SECTION 2: HAZARDS IDENTIFICATION.

2.1 Classification of the substance or mixture.
In accordance with Regulation (EU) No 1272/2008:

Eye Irrit. 2 : Causes serious eye irritation.

2.2 Label elements.
Labelling in accordance with Regulation (EU) No 1272/2008:

Pictograms:

Signal Word: Warning

H statements: 
H319 Causes serious eye irritation.

P statements:
P264 Wash ... thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.
P337+P313 If eye irritation persists: Get medical advice/attention.

Contains:
Citric acid

-Continued on next page.-
2.3 Other hazards.
The product may have the following additional risks:
- Dustiness.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS.

3.1 Substances.
Chemical Name: Citric acid
CAS No: 5949-29-1
Registration No: 01-2119457026-42-xxxx

3.2 Mixtures.
Not Applicable.

SECTION 4: FIRST AID MEASURES.

4.1 Description of first aid measures.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious.

Inhalation.
Take the victim into open air; keep them warm and calm. If breathing is irregular or stops, perform artificial respiration.

Eye contact.
Remove contact lenses, if present and if it is easy to do. Wash eyes with plenty of clean and cool water for at least 10 minutes while pulling eyelids up, and seek medical assistance. Don’t let the person rub the affected eye.

Skin contact.
Remove contaminated clothing. Wash skin vigorously with water and soap or a suitable skin cleaner. NEVER use solvents or thinners.

Ingestion.
If accidentally ingested, seek immediate medical attention. Keep calm. NEVER induce vomiting.

4.2 Most important symptoms and effects, both acute and delayed.
Irritant Product, repeated or prolonged contact with skin or mucous membranes can cause redness, blisters or dermatitis, inhalation of spray mist or particles in suspension may cause irritation of the respiratory tract, some symptoms may not be immediate.

4.3 Indication of any immediate medical attention and special treatment needed.
In case of doubt or when symptoms of feeling unwell persist, get medical attention. Never administer anything orally to persons who are unconscious. Cover the affected area with a dry sterile bandage. Protect the affected area from pressure or friction.

SECTION 5: FIREFIGHTING MEASURES.

The product does not present any particular risk in case of fire.

5.1 Extinguishing media.
Suitable extinguishing media: Extinguisher powder or CO2. In case of more serious fires, also alcohol-resistant foam and water spray.

Unsuitable extinguishing media:
Do not use a direct stream of water to extinguish. In the presence of electrical voltage, you cannot use water or foam as extinguishing media.

5.2 Special hazards arising from the substance or mixture.
Special risks:
Fire can cause thick, black smoke. As a result of thermal decomposition, dangerous products can form: carbon monoxide, carbon dioxide. Exposure to combustion or decomposition products can be harmful to your health.

5.3 Advice for firefighters.

-Continued on next page.-
Use water to cool tanks, cisterns, or containers close to the heat source or fire. Take wind direction into account. Prevent the products used to fight the fire from going into drains, sewers, or waterways.

**Fire protection equipment.**
According to the size of the fire, it may be necessary to use protective suits against the heat, individual breathing equipment, gloves, protective goggles or facemasks, and boots.

**SECTION 6: ACCIDENTAL RELEASE MEASURES.**

6.1 Personal precautions, protective equipment and emergency procedures.
For exposure control and individual protection measures, see section 8.

6.2 Environmental precautions.
Prevent the contamination of drains, surface or subterranean waters, and the ground.

6.3 Methods and material for containment and cleaning up.
Contain and collect spillage with inert absorbent material (earth, sand, vermiculite, Kieselguhr...) and clean the area immediately with a suitable decontaminant.
Deposit waste in closed and suitable containers for disposal, in compliance with local and national regulations

6.4 Reference to other sections.
For exposure control and individual protection measures, see section 8.
For later elimination of waste, follow the recommendations under section 13.

**SECTION 7: HANDLING AND STORAGE.**

7.1 Precautions for safe handling.
For personal protection, see section 8.
In the application area, smoking, eating, and drinking must be prohibited.
Follow legislation on occupational health and safety.
Never use pressure to empty the containers. They are not pressure-resistant containers. Keep the product in containers made of a material identical to the original.

7.2 Conditions for safe storage, including any incompatibilities.
Store according to local legislation. Observe indications on the label. Store the containers between 5 and 25º C, in a dry and well-ventilated place, far from sources of heat and direct solar light. Keep far away from ignition points. Keep away from oxidising agents and from highly acidic or alkaline materials. Do not smoke. Prevent the entry of non-authorised persons. Once the containers are open, they must be carefully closed and placed vertically to prevent spills.
The product is not affected by Directive 2012/18/EU (SEVESO III).

7.3 Specific end use(s).
Oenological acidifier

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION.**

8.1 Control parameters.
The product does NOT contain substances with Professional Exposure Environmental Limit Values. The product does NOT contain substances with Biological Limit Values.

8.2 Exposure controls.

**Measures of a technical nature:**
Provide adequate ventilation, which can be achieved by using good local exhaust-ventilation and a good general exhaust system.

<table>
<thead>
<tr>
<th>Concentration:</th>
<th>100 %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Uses:</td>
<td>Natural acidifier used in food processing industry.</td>
</tr>
<tr>
<td>Breathing protection:</td>
<td>Filter mask for protection against gases and particles.</td>
</tr>
</tbody>
</table>

-Continued on next page.-
**SAFETY DATA SHEET**  
(in accordance with Regulation (EU) 2015/830)

**MP018-CITRIC ACID MONOHYDRATE**

**Version 1**  
**Date of compilation: 01/01/2012**

**Version 4 (replaces version 3)**  
**Revision date: 06/11/2020**

**Page 4 of 8**  
**Print date: 06/11/2020**

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**Hand protection:**

<table>
<thead>
<tr>
<th>PPE:</th>
<th>Non-disposable protective gloves against chemicals.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics:</td>
<td>«CE» marking, category III. Check the list of chemicals for which the glove has been tested.</td>
</tr>
<tr>
<td>CEN standards:</td>
<td>EN 374-1, En 374-2, EN 374-3, EN 420</td>
</tr>
<tr>
<td>Maintenance:</td>
<td>A schedule for the periodical replacement of gloves should be established in order to guarantee their replacement before pollutants permeate them. The use of contaminated gloves could be more dangerous than not using gloves, since the pollutant can gradually accumulate in the glove's material.</td>
</tr>
<tr>
<td>Observations:</td>
<td>They are to be replaced whenever tears, cracks or deformations are observed or when exterior dirt could reduce their strength.</td>
</tr>
<tr>
<td>Material:</td>
<td>PVC (polyvinyl chloride)</td>
</tr>
<tr>
<td>Breakthrough time (min.):</td>
<td>&gt; 480</td>
</tr>
<tr>
<td>Material thickness (mm):</td>
<td>0,35</td>
</tr>
</tbody>
</table>

**Eye protection:**

<table>
<thead>
<tr>
<th>PPE:</th>
<th>Protective goggles with built-in frame.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics:</td>
<td>«CE» marking, category II. Eye protector with built-in frame for protection against dust, smoke, fog and vapour.</td>
</tr>
<tr>
<td>CEN standards:</td>
<td>EN 165, EN 166, EN 167, EN 168</td>
</tr>
<tr>
<td>Maintenance:</td>
<td>Visibility through lenses should be ideal. Therefore, these parts should be cleaned daily. Protectors should be disinfected periodically following the manufacturer’s instructions.</td>
</tr>
<tr>
<td>Observations:</td>
<td>Some signs of wear and tear include: yellow colouring of the lenses, superficial scratching of the lenses, scraping etc.</td>
</tr>
</tbody>
</table>

**Skin protection:**

<table>
<thead>
<tr>
<th>PPE:</th>
<th>Chemical protective clothing</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics:</td>
<td>«CE» marking, category III. Clothing should fit properly. The level of protection must be set according to a test parameter called BT (Breakthrough Time), which indicates how long it takes for the chemical to pass through the material.</td>
</tr>
<tr>
<td>CEN standards:</td>
<td>EN 464, EN 340, EN 943-1, EN 943-2, EN ISO 6529, EN ISO 6530, EN 13034</td>
</tr>
<tr>
<td>Maintenance:</td>
<td>In order to guarantee uniform protection, follow the washing and maintenance instructions provided by the manufacturer. The protective clothing’s design should facilitate correct positioning, staying in place without moving for the period of use expected, bearing in mind environmental factors as well as any movement or position the user might adopt while carrying out the activity.</td>
</tr>
<tr>
<td>Observations:</td>
<td>-</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PPE:</th>
<th>Anti-static safety footwear against chemicals.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Characteristics:</td>
<td>«CE» marking, category III. Check the list of chemicals against which the footwear is resistant.</td>
</tr>
<tr>
<td>CEN standards:</td>
<td>EN ISO 13287, EN 13832-1, EN 13832-2, EN 13832-3, EN ISO 20344, EN ISO 20345</td>
</tr>
<tr>
<td>Maintenance:</td>
<td>For correct maintenance of this kind of safety footwear, it is necessary to observe the instructions specified by the manufacturer. The footwear should be replaced as soon as any sign of damage is observed.</td>
</tr>
<tr>
<td>Observations:</td>
<td>The footwear should be cleaned regularly and dried when damp, although it should not be placed too close to a source of heat in order to avoid any sharp changes in temperature.</td>
</tr>
</tbody>
</table>

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**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES.**

9.1 Information on basic physical and chemical properties.

Appearance: Crystalline

Colour: N.A./N.A.

Odour: odourless

Odour threshold: N.A./N.A.

pH: N.A./N.A.

Melting point: 135 - 152 °C

Boiling Point: 385,85 °C

Flash point: N.A./N.A.
Evaporation rate: N.A./N.A.
Inflammability (solid, gas): N.A./N.A.
Lower Explosive Limit: 8.0% (v)
Upper Explosive Limit: N.A./N.A.
Vapour pressure: < 0.1 hPa (20ºC)
Vapour density: N.A./N.A.
Relative density: 1.54
Solubility: N.A./N.A.
Liposolubility: N.A./N.A.
Hydrosolubility: 1630 g/l
Partition coefficient (n-octanol/water): N.A./N.A.
Auto-ignition temperature: N.A./N.A.
Decomposition temperature: N.A./N.A.
Viscosity: N.A./N.A.
Explosive properties: N.A./N.A.
Oxidizing properties: N.A./N.A.
N.A./N.A. = Not Available/Not Applicable due to the nature of the product

9.2 Other information.
Dropping point: N.A./N.A.
Blink: N.A./N.A.
Kinematic viscosity: N.A./N.A.
N.A./N.A. = Not Available/Not Applicable due to the nature of the product

SECTION 10: STABILITY AND REACTIVITY.

10.1 Reactivity.
The product does not present hazards by their reactivity.

10.2 Chemical stability.
Stable under the recommended handling and storage conditions (see section 7).

10.3 Possibility of hazardous reactions.
At high temperatures can occur pyrolysis and dehydrogenation.

10.4 Conditions to avoid.
Avoid the following conditions:
- Heating.
- High temperature.

10.5 Incompatible materials.
Avoid the following materials:
- Acids.
- Bases.
- Oxidizing agents.

10.6 Hazardous decomposition products.
In case of fire, dangerous decomposition products can be generated, such as carbon monoxide and dioxide and nitrogen fumes and oxides.

SECTION 11: TOXICOLOGICAL INFORMATION.

IRRITANT MIXTURE. Splashes in the eyes can cause irritation.

11.1 Information on toxicological effects.
There are no tested data available on the product.
Repeated or prolonged contact with the product can cause the elimination of oil from the skin, giving rise to non-allergic contact dermatitis and absorption of the product through the skin.

a) acute toxicity;
Not conclusive data for classification.

b) skin corrosion/irritation;
Not conclusive data for classification.

-Continued on next page.-
c) serious eye damage/irritation;  
Product classified:  
Eye irritation, Category 2: Causes serious eye irritation.

d) respiratory or skin sensitisation;  
Not conclusive data for classification.

e) germ cell mutagenicity;  
Not conclusive data for classification.

f) carcinogenicity;  
Not conclusive data for classification.

g) reproductive toxicity;  
Not conclusive data for classification.

h) STOT-single exposure;  
Not conclusive data for classification.

i) STOT-repeated exposure;  
Not conclusive data for classification.

j) aspiration hazard;  
Not conclusive data for classification.

SECTION 12: ECOLOGICAL INFORMATION.

12.1 Toxicity.

No information is available regarding the ecotoxicity.

12.2 Persistence and degradability.

No information is available regarding the biodegradability.
No information is available about persistence and degradability of the product.

12.3 Bioaccumulative potential.
Information about the bioaccumulation.

<table>
<thead>
<tr>
<th>Name</th>
<th>Bioaccumulation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Log Pow</td>
</tr>
<tr>
<td>Citric acid</td>
<td></td>
</tr>
<tr>
<td>CAS No: 5949-29-1</td>
<td></td>
</tr>
</tbody>
</table>

12.4 Mobility in soil.
No information is available about the mobility in soil.
The product must not be allowed to go into sewers or waterways.
Prevent penetration into the ground.

12.5 Results of PBT and vPvB assessment.
No information is available about the results of PBT and vPvB assessment of the product.

12.6 Other adverse effects.
No information is available about other adverse effects for the environment.

SECTION 13: DISPOSAL CONSIDERATIONS.

13.1 Waste treatment methods.
Do not dump into sewers or waterways. Waste and empty containers must be handled and eliminated according to current, local/national legislation. Follow the provisions of Directive 2008/98/EC regarding waste management.

SECTION 14: TRANSPORT INFORMATION.

Transportation is not dangerous. In case of road accident causing the product’s spillage, proceed in accordance with point 6.

14.1 UN number.
Transportation is not dangerous.

14.2 UN proper shipping name.
Description:
ADR: Not classified as hazardous for transport.
IMDG: Not classified as hazardous for transport.
ICAO/IATA: Not classified as hazardous for transport.

14.3 Transport hazard class(es).
Transportation is not dangerous.

14.4 Packing group.
Transportation is not dangerous.

14.5 Environmental hazards.
Transportation is not dangerous.

14.6 Special precautions for user.
Transportation is not dangerous.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code.
Transportation is not dangerous.

SECTION 15: REGULATORY INFORMATION.

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

The product is not affected by Directive 2012/18/EU (SEVESO III).
The product is not affected by Regulation (EU) No 528/2012 concerning the making available on the market and use of biocidal products.
The product is not affected by the procedure established Regulation (EU) No 649/2012, concerning the export and import of dangerous chemicals.

15.2 Chemical safety assessment.
No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.

SECTION 16: OTHER INFORMATION.

Classification codes:

Eye Irrit. 2 : Eye irritation, Category 2

Changes regarding to the previous version:
- Changes in the composition of the product (SECTION 3.2).
- Elimination of ecological information values (SECTION 12.3).
- Modification of the classification ADR/IMDG/ICAO/IATA/RID (SECTION 14).

-Continued on next page.-
Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:

Physical hazards: On basis of test data
Health hazards: Calculation method
Environmental hazards: Calculation method

It is advisable to carry out basic training with regard to health and safety at work in order to handle this product correctly.

Abbreviations and acronyms used:
- BCF: Bioconcentration factor.
- CEN: European Committee for Standardization.
- EC50: Half maximal effective concentration.
- PPE: Personal protection equipment.
- LC50: Lethal concentration, 50%.
- LD50: Lethal dose, 50%.
- Log Pow: Logarithm of the partition octanol-water.
- NOEC: No observed effect concentration.

Key literature references and sources for data:
http://eur-lex.europa.eu/homepage.html
http://echa.europa.eu/


The information in this Safety Data Sheet on the Preparation is based on current knowledge and on current EC and national laws, as far as the working conditions of the users is beyond our knowledge and control. The product must not be used for purposes other than those that are specified without first having written instructions on how to handle. It is always the responsibility of the user to take the appropriate measures in order to comply with the requirements established by current legislation. The information contained in this Safety Sheet only states a description of the safety requirements for the preparation, and it must not be considered as a guarantee of its properties.