

Citric Acid, Monohydrate Granular USP

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Citric Acid, Monohydrate Granular USP

Synonyms/Generic Names: 2-Hydroxy-1,2,3-Propantricarboxylic acid

Product Number: 1510

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information: 920-623-2140 (Monday-Friday 8:00-4:30)
www.columbuschemical.com

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Signal Words: Warning

Pictograms:



GHS Classification:

| | |
|----------------|-------------|
| Eye irritation | Category 2A |
|----------------|-------------|

GHS Label Elements, including precautionary statements:

Hazard Statements:

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| H319 | Causes serious eye irritation. |
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Precautionary Statements:

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| P305+P351+P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do so. Continue rinsing. |
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Potential Health Effects

| | |
|-------------------|------------------------------------------------------------------|
| Eyes | Causes eye irritation. |
| Inhalation | May be harmful if inhaled. Causes respiratory tract irritation. |
| Skin | May be harmful if absorbed through skin. Causes skin irritation. |
| Ingestion | May be harmful if swallowed. |

NFPA Ratings

| | |
|-----------------|---------------|
| Health | 2 |
| Flammability | 1 |
| Reactivity | 0 |
| Specific hazard | Not Available |

HMIS Ratings

| | |
|------------|---|
| Health | 2 |
| Fire | 1 |
| Reactivity | 0 |

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component | Weight % | CAS # | EINECS# / ELINCS# | Formula | Molecular Weight |
|-------------|----------|-----------|-------------------|----------------------------------------------------------------|------------------|
| Citric Acid | 100 | 5949-29-1 | 201-069-1 | C ₆ H ₈ O ₇ ·H ₂ O | 210.14 g/mol |

4. FIRST-AID MEASURES

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|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Eyes | In case of eye contact, rinse with plenty of water and seek medical attention. |
| Inhalation | Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention. |
| Skin | Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention. |
| Ingestion | Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention. |

5. FIRE-FIGHTING MEASURES

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| Suitable (and unsuitable) extinguishing media | Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide. |
| Special protective equipment and precautions for firefighters | Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots. |
| Specific hazards arising from the chemical | Emits toxic fumes (carbon oxides) under fire conditions. (See also Stability and Reactivity section). |

6. ACCIDENTAL RELEASE MEASURES

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|----------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Personal precautions, protective equipment and emergency procedures | See section 8 for recommendations on the use of personal protective equipment. |
| Environmental precautions | Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements. |
| Methods and materials for containment and cleaning up | Pick up and arrange disposal without creating dust. Sweep up and shovel. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations. |

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid formation of dusts.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls: Contains no substances with occupational exposure limit values.

Personal Protection

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|-------------------|-------------------------------------------------------------------------------------------------------------|
| Eyes | Wear chemical safety glasses with side shields or goggles. |
| Inhalation | Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator. |
| Skin | Wear nitrile or rubber gloves, apron or lab coat. |
| Other | Not Available |

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

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|---------------------------------------------|----------------------------------------------------------|
| Appearance (physical state, color, etc.) | White crystalline solid. |
| Odor | Not Available |
| Odor threshold | Not Available |
| pH | 1.8 at 50 g/l at 20°C (68°F) |
| Melting point/freezing point | Not Available |
| Initial boiling point and boiling range | Not Available |
| Flash point | 173.9°C (345.0°F) – Closed cup. |
| Evaporation rate | Not Available |
| Flammability (solid, gas) | Not Available |
| Upper/lower flammability or explosive limit | Not Available |
| Vapor pressure | Not Available |
| Vapor density | 7.26 (air=1) |
| Density | 1.54 g/cm ³ |
| Solubility (ies) | Soluble in water |
| Partition coefficient: n-octanol/water | Not Available |
| Auto-ignition temperature | Not Available |
| Decomposition temperature | 175°C (Breaks down to Citric acid, anhydrous above 78°C) |

10. STABILITY AND REACTIVITY

| | |
|-------------------------------------------|------------------------------------------------------------|
| Chemical Stability | Stable |
| Possibility of Hazardous Reactions | Will not occur. |
| Conditions to Avoid | Excess heat, moisture |
| Incompatible Materials | Strong oxidizing agents, bases, reducing agents, nitrates. |
| Hazardous Decomposition Products | Carbon oxides. |

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

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|--------------------|----------------------------------------|
| Skin | Not Available |
| Eyes | Eyes – rabbit – Irritating to eyes. |
| Respiratory | Not Available |
| Ingestion | LD50 Oral – rat – 6,730 mg/kg |
| Other | LD50 Intraperitoneal – rat – 375 mg/kg |

Carcinogenicity

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|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|
| IARC | No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. |
| ACGIH | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. |
| NTP | No components of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. |
| OSHA | No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |

Signs & Symptoms of Exposure

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|--------------------|------------------------------------------------|
| Skin | Irritation, itching, swelling, redness, pain. |
| Eyes | Irritation, itching, redness, pain. |
| Respiratory | Irritation, coughing, wheezing. |
| Ingestion | Gastrointestinal discomfort and possible pain. |

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|---------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| Chronic Toxicity | Respiratory sensitization: Prolonged or repeated exposure may cause allergic reactions in certain sensitive individuals. |
| Teratogenicity | Not Available |
| Mutagenicity | Not Available |
| Embryotoxicity | Not Available |
| Specific Target Organ Toxicity | Not Available |

12. ECOLOGICAL INFORMATION

Ecotoxicity

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|-----------------------------|---------------|
| Aquatic Vertebrate | Not Available |
| Aquatic Invertebrate | Not Available |
| Terrestrial | Not Available |

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|--------------------------------------|---------------|
| Persistence and Degradability | Not Available |
| Bioaccumulative Potential | Not Available |
| Mobility in Soil | Not Available |
| PBT and vPvB Assessment | Not Available |
| Other Adverse Effects | Not Available |

13. DISPOSAL CONSIDERATIONS

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| Waste Residues | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container. |
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|---------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product Containers | Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container. |
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The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

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|------------------|---------------------|
| US DOT | Not Dangerous Goods |
| TDG | Not Dangerous Goods |
| IMDG | Not Dangerous Goods |
| Marine Pollutant | No |
| IATA/ICAO | Not Dangerous Goods |

15. REGULATORY INFORMATION

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|-----------------------------------------------------------------|----------------------------------------------------------|
| TSCA Inventory Status | All ingredients are listed on the TSCA Active inventory. |
| DSL / NDSL | All ingredients are listed on the DSL inventory. |
| California Proposition 65 | Not Listed |
| Rhode Island: Hazardous Substance List | Not Listed |
| Massachusetts: Toxic or Hazardous Substance List, Right to Know | Not Listed |
| Pennsylvania: Hazardous Substance List | Not Listed |
| New Jersey: Right to Know Hazardous Substance List | Not Listed |
| SARA 302 | Not Listed |
| SARA 304 | Not Listed |
| SARA 311 | Acute Health Hazard |
| SARA 312 | Acute Health Hazard |
| SARA 313 | Not Listed |
| WHMIS Canada | Class E: Corrosive material |

16. OTHER INFORMATION

| Revision | Date |
|------------|------------|
| Original | 07/09/2012 |
| Revision 1 | 11/21/2013 |
| Revision 2 | 08/16/2021 |

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information, and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing, or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.