

# SAFETY DATA SHEET

## 1 PRODUCT AND COMPANY IDENTIFICATION

**Product name:** Citric Acid, Anhydrous, Powder

**Product No.:** NC-9177, NC-0222, NC-7943

**Manufacturer:**

Avantor Performance Materials, Inc.  
3477 Corporate Parkway, Suite 200  
Center Valley, PA 18034  
U.S.A.

**Telephone:**

Customer Service: 800-372-6726

**Contact Person:** Environmental Health & Safety

**Emergency telephone:**

24 Hour Emergency: 908-859-2151  
Chemtrec: 800-424-9300

## 2 HAZARDS IDENTIFICATION

**Emergency Overview:**

**Appearance:**

**Color:** White  
**Form :** Granular to fine crystalline powder  
**Odor:** Odorless

**Signal words** WARNING!

**Potential Health Effects:**

**General** Irritating to eyes, respiratory system and skin.

**Inhalation:** May cause respiratory irritation.

**Skin:** Causes skin irritation.

**Eye:** Causes serious eye irritation.

**Ingestion:** May cause irritation of the gastrointestinal tract.

**Chronic Effects:** Chronic ingestion may cause tooth enamel erosion.

**Signs and Symptoms:** None known.

**Routes of Exposure:** Skin and/or eye contact., Inhalation, Ingestion

**OSHA Regulatory Status** This product is hazardous according to OSHA 29CFR 1910.1200.

**Environment:** The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

### 3 COMPOSITION / INFORMATION ON INGREDIENTS

**General information:**

**Hazardous Component(s):**

Chemical name	CAS-No.	Concentration
CITRIC ACID	77-92-9	99 - 100%

\* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

### 4 FIRST AID MEASURES

- General:** Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
- Inhalation:** Move to fresh air. Get medical attention if symptoms persist.
- Skin contact:** Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. Get medical attention. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.
- Ingestion:** Do NOT induce vomiting. Call a physician or poison control center immediately.
- Notes to the physician:**
- Treatment:** Symptoms may be delayed.

### 5 FIRE-FIGHTING MEASURES

- Extinguishing media:** Water spray, fog, CO2, dry chemical, or alcohol resistant foam.
- Unsuitable extinguishing media:** None known.
- Unusual Fire & Explosion Hazards:** Combustible solid. Dust may form explosive mixtures with air.
- Special Fire Fighting Procedures:** Move containers from fire area if you can do so without risk. Use water spray to keep fire-exposed containers cool.
- Protective Measures:** Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

### 6 ACCIDENTAL RELEASE MEASURES

- Personal precautions:** See Section 8 of the MSDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away. Ventilate closed spaces before entering them. Use personal protective equipment.
- Environmental precautions:** Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.
- Spill Cleanup Methods:** Sweep up and place in a clearly labeled container for chemical waste. Clean

surface thoroughly to remove residual contamination.

**Notification Procedures:** Inform authorities if large amounts are involved.

## 7 HANDLING AND STORAGE

**Handling:** Use personal protective equipment as required. Avoid generation and spreading of dust. Avoid contact with eyes, skin, and clothing. Wash hands thoroughly after handling. Dust clouds may be explosive under certain conditions. Avoid inhalation of dust.

**Storage:** Keep container tightly closed. Store in a dry place. Store in a well-ventilated place.

## 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits** None of the components have assigned exposure limits.

**Protective Measures:** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Air-purifying respirator with a high efficiency particulate filter.

**Eye protection:** Wear safety glasses with side shields (or goggles).

**Skin and Body Protection:** Wear suitable protective clothing and gloves.

**Hygiene measures:** Provide eyewash station and safety shower. Observe good industrial hygiene practices. Wash contaminated clothing before reuse. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

<b>Physical State:</b>	Solid
<b>Form:</b>	Granular to fine crystalline powder
<b>Color:</b>	White
<b>Odor:</b>	Odorless
<b>Odor Threshold:</b>	No data available.
<b>pH:</b>	2.2 (0.1 N Aqueous solution)
<b>Melting Point:</b>	153 °C
<b>Boiling Point:</b>	No data available.
<b>Flash Point:</b>	Not applicable
<b>Evaporation Rate:</b>	No data available.
<b>Flammability (solid, gas):</b>	No data available.
<b>Flammability Limit - Upper (%)-:</b>	No data available.

<b>Flammability Limit - Lower (%)—:</b>	No data available.
<b>Vapor pressure:</b>	No data available.
<b>Vapor density (air=1):</b>	No data available.
<b>Relative density:</b>	1.665 (20 °C) 4 °C
<b>Solubility(ies)</b>	
<b>Solubility in Water:</b>	Soluble
<b>Solubility (other):</b>	No data available.
<b>Partition coefficient (n-octanol/water):</b>	No data available.
<b>Autoignition Temperature:</b>	1,850 °F
<b>Decomposition Temperature:</b>	No data available.
<b>Viscosity:</b>	No data available.
<b>Explosive properties:</b>	No data available.
<b>Oxidizing properties:</b>	No data available.

## 10 STABILITY AND REACTIVITY

<b>Stability:</b>	Material is stable under normal conditions.
<b>Possibility of hazardous reactions:</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid:</b>	Heat, sparks, flames. Contact with incompatible materials.
<b>Incompatible materials:</b>	Metal nitrates (potentially explosive reaction). Alkali carbonates and bicarbonates. Potassium tartrate. Will corrode copper, zinc, aluminum and their alloys.
<b>Hazardous decomposition products:</b>	Thermal decomposition may release oxides of carbon.

## 11 TOXICOLOGICAL INFORMATION

<b>Product:</b>	
<b>Acute Toxicity (Oral):</b>	LD 50 (Rat): 6,730 mg/kg LD 50 (Mouse): 5,040 mg/kg
<b>Inhalation:</b>	May cause irritation to the respiratory system.
<b>Ingestion:</b>	Irritating. May cause nausea, stomach pain and vomiting.
<b>Skin corrosion/irritation:</b>	Causes skin irritation. May cause an allergic skin reaction.
<b>Serious eye damage/eye irritation:</b>	Dust in the eyes will cause irritation.
<b>Respiratory sensitizer/Skin sensitizer:</b>	Not a skin sensitizer.
<b>Carcinogenicity:</b>	This substance has no evidence of carcinogenic properties.
<b>Mutagenesis:</b>	No mutagenic components identified
<b>Reproductive toxicity:</b>	No components toxic to reproduction

## 12 ECOLOGICAL INFORMATION

<b>Ecotoxicity:</b>	No data on possible environmental effects have been found.
<b>Product:</b>	
<b>Acute toxicity(Fish):</b>	No data available.
<b>Chronic Toxicity(Fish):</b>	No data available.
<b>Acute toxicity(Aquatic invertebrates):</b>	No data available.
<b>Chronic Toxicity(Aquatic invertebrates):</b>	No data available.
<b>Acute toxicity(Aquatic plants):</b>	No data available.
<b>Persistence and degradability:</b>	There are no data on the degradability of this product.
<b>Bioaccumulative potential:</b>	No data available on bioaccumulation.
<b>Mobility:</b>	The product is water soluble and may spread in water systems.

## 13 DISPOSAL CONSIDERATIONS

<b>Disposal Methods:</b>	Discharge, treatment, or disposal may be subject to national, state, or local laws.  Since emptied containers retain product residue, follow label warnings even after container is emptied.
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## 14 TRANSPORT INFORMATION

<b>DOT</b>	Not regulated.
<b>IMDG - International Maritime Dangerous Goods Code</b>	Not regulated.
<b>IATA</b>	Not regulated.

## 15 REGULATORY INFORMATION

**Inventory Status:**

Australia AICS:	On or in compliance with the inventory
Canada DSL Inventory List:	On or in compliance with the inventory
EU EINECS List:	On or in compliance with the inventory
EU ELINCS List:	Not in compliance with the inventory.
Japan (ENCS) List:	On or in compliance with the inventory
EU No Longer Polymers List:	Not in compliance with the inventory.
China Inv. Existing Chemical Substances:	On or in compliance with the inventory
Korea Existing Chemicals Inv. (KECI):	On or in compliance with the inventory
Canada NDSL Inventory:	Not in compliance with the inventory.
Philippines PICCS:	On or in compliance with the inventory
US TSCA Inventory:	On or in compliance with the inventory
New Zealand Inventory of Chemicals:	On or in compliance with the inventory
Switzerland Consolidated Inventory:	Not in compliance with the inventory.
Japan ISHL Listing:	On or in compliance with the inventory
Japan Pharmacopoeia Listing:	On or in compliance with the inventory

**US Regulations**

● **CERCLA Hazardous Substance List (40 CFR 302.4):**

● **Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3):**

None

● **Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):**

None

**SARA Title III**

● **Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):**

None

None

● **Section 311/312 (40 CFR 370):**

Acute (Immediate)  Chronic (Delayed)  Fire  Reactive  Pressure Generating

● **Section 313 Toxic Release Inventory (40 CFR 372):**

None present or none present in regulated quantities.

**State Regulations**

● **California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):**

No ingredient regulated by CA Prop 65 present.

● **Massachusetts Right-To-Know List:**

No ingredient regulated by MA Right-to-Know Law present.

● **New Jersey Right-To-Know List:**

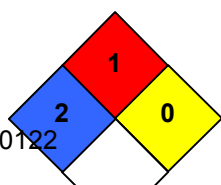
CITRIC ACID Listed

● **Pennsylvania Right-To-Know List:**

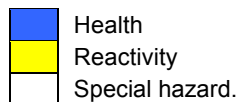
CITRIC ACID Listed

**16 OTHER INFORMATION**

**NFPA Hazard ID**



 Flammability



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

**Revision Information:**

**Issue Date:** 01-08-2013

**SDS No:**

**Disclaimer:**

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