MATERIAL SAFETY DATA SHEET

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CITRIC ACID (ANH.)

SECTION 1: PRODUCT IDENTIFICATION

Product Name: CITRIC ACID (ANHYDROUS) FOOD GRADE Product Code: 312 CAS#: Not available Synonym: Not available Chemical Name: Not available Chemical Formula: Not available Formula Weight: Not available

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

Composition: Name: Citric Acid Toxicological Data on Ingredients: Classification according to Regulation (EC) No 1272/2008: Skin irritation (Category 2), H315 Serious eye damage (Category 1), H318

SECTION 3: HAZARDS IDENTIFICATION

Potential Acute Health Effects: Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation. Slightly hazardous in case of skin contact (corrosive), of eye contact (corrosive), Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns.

Potential Chronic Health Effects: Carcinogenic Effects: Not available Mutagenic Effects: Not available Teratogenic Effects: Not available Developmental Toxicity: Not available

SECTION 4: FIRST AID MEASURES

Eye Contact: Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Cold water may be used. Get medical attention immediately.

Skin Contact: immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Thoroughly clean clothes and shoes before reuse.

Serious skin contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.

Ingestion: Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.





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Serious Ingestion: Not available

SECTION 5: FIRE FIGHTING MEASURES

Flammability of the Product: May be combustible at high temperature Auto-Ignition Temperature: Not Available Flash Points: Not available Flammable Limits: Not Available Products of Combustion: Carbon oxides Fire Hazards in Presence of Various Substances: Slightly flammable to flammable in presence of open flames and sparks, of heat. Non-flammable in presence of shocks Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in presence of mechanical impact: Not available Risks of explosion of the product in presence of static discharge: Not available Fire Fighting Media and Instructions: SMALL FIRE: Use DRY chemical powder LARGE FIRE: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Special Remarks on Fire Hazards: Not Available

SECTION 6: ACCIDENTAL RELEASE MEASURES

Small Spill: Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. If necessary: Neutralize the residue with a dilute solution of sodium carbonate.
Large Spill: Corrosive liquid. Stop leak if without risk. If the product is in its solid form: Use a shovel to put the material into a convenient waste disposal container. If the product is in its liquid form: Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Absorb with an inert material and put the spilled material in an appropriate waste disposal. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Call for assistance on disposal. Neutralize the residue with a dilute solution of sodium carbonate

SECTION 7: HANDLING AND STORAGE

Precautions: Keep locked up. Keep container dry. Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents. **Storage:** Keep container tightly closed. Keep container in a cool, well-ventilated area

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

Personal Protection: Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves. Boots.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits: Not Available





SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical state and appearance	:	White crystalline powder
Odor	:	Not available
Taste	:	Not available
Color	:	Not available
Molecular Weight	:	Not available
PH	:	Not available
Boiling Point	:	Not available
Melting Point	:	Not available
Critical Temperature	:	Not available
Specific Gravity	:	Not available
Vapor Pressure	:	Not available
Vapor Density	:	Not available
Volatility	:	Not available
Odor Threshold	:	Not available
Water/Oil Dist. Coeff.	:	Not available
Ionicity (in Water)	:	Not available
Dispersion Properties	:	Not available
Solubility	:	Soluble in water

SECTION 10: STABILITY AND REACTIVITY DATA

Stability: The product is stable.
Instability Temperature: Not available
Conditions of Instability: Excess heat, incompatible materials
Incompatibility with various substances: Reactive with oxidizing agents, alkalis
Corrosivity: Slightly corrosive in presence of aluminum, of copper, of stainless steel(304), of stainless steel(316). Non-corrosive in presence of glass
Special Remarks on Reactivity: Not available
Special Remarks on Corrosivity: Caustic in concentrated solutions. Severe corrosive effect on brass. Minor corrosive effect on branze
Polymerization: Will not occur

SECTION 11: TOXICOLOGICAL INFORMATION

Acute toxicity: Not available Skin corrosion/irritation: Not available Serious eye damage/eye irritation: Not available Respiratory or skin sensitization: Not available Carcinogenicity: Not available Reproductive toxicity: Not available Specific target organ toxicity - single exposure: Not available Specific target organ toxicity - repeated exposure: Not available Aspiration hazard: Not available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: LC50: Not available BOD and COD: Not available Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.



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Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself. **Special Remarks on the Products of Biodegradation:** Not available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

DOT Classification: Not a DOT controlled material (United States). Identification: Not applicable Special Provisions for Transport: Not applicable

SECTION 15: REGULATORY INFORMATION

Federal and State Regulations: TSCA 8(b) inventory: Citric Acid Other Regulations: Not available **Other Classifications:** WHMIS (Canada): CLASS E: Corrosive Solid DSCL (EEC): Not applicable HMIS (U.S.A.): Health Hazard: 3 Fire Hazard: 1 Reactivity: 0 **Personal Protection: E** National Fire Protection Association (U.S.A.): Health: 3 Flammability: 1 Reactivity: 0 Specific hazard: **Protective Equipment:** Gloves, Lab coat, Safety glasses, Dust respirator - be sure to use an approved/certified respirator or equivalent

SECTION 16: OTHER INFORMATION

References: H315 - Skin irritation (Category 2) - Causes skin irritation. H318 - Serious eye damage (Category 1) - Causes serious eye damage **Other Special Considerations:** Not available

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