SAFETY DATA SHEET

Citric Acid Anhydrous

Section 1 Identification		
Product Name/Part Number	**Supplier**	**Emergency Contact**
Citra-Quik™ Citric Acid USP Grade, Anhydrous P/N: J100-XXXX	Reprocessing Products Corporation (RPC) Repackager 6901 E Fish Lake Rd Maple Grove, MN 55369 USA 800-647-3873	Spill, Leak, Fire, or Accident Call CHEMTREC Day or Night Within USA and Canada: 800-424-9300
Recommended Use: Disinfection, cleaning, decalcification and heat disinfection of hemodialysis machines.		

Section 2 Hazard(s) Identification		
Globally Harmonized System (GHS) **Hazard Communication Standard (HCS)**		
Physical	**Health**	**OSHA Defined Hazards**
Not classified	Serious eye damage/eye irritation - Category 2A	Combustible dust

Label Elements:

Signal word: Warning

Hazard statement: May form combustible dust concentration in the air. Causes serious eye irritation.

Precautionary Statements

Prevention: Prevent dust accumulation to minimize explosion hazard. Keep away from heat/sparks/open flames/hot surfaces. NO SMOKING. Keep container tightly closed. Ground/bond container and receiving equipment. Wear protective gloves/eye protection/face protection. Wash thoroughly after handling. Observe good industrial hygiene practices.

Response: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses. Continue rinsing. If eye irritation persists – get medical advice/attention. Take off contaminated clothing and wash before reuse. In case of fire, use appropriate media to extinguish.

Storage: Store away from incompatible materials.

Disposal: Dispose of waste and residues in accordance with local authority requirements.

Hazards not otherwise classified (HNOC): None known

Section 3 Composition / Information on Ingredients		
Component	**Component CAS Number**	**Component Amount**
Citric acid	77-92-9	100%

Composition comments: All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

Section 4 First Aid Measures

Inhalation: Move to fresh air. Oxygen or artificial respiration if needed. Call a physician if symptoms develop or persist.

Skin contact: Wash off with soap and water. Get medical attention if irritation develops and persists.

Eye contact: Do not rub eyes. Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. If eye irritation persists: Get medical advice/attention.

Ingestion: Rinse mouth. Get medical attention if symptoms occur.

Most important symptoms/effects, acute and delayed: Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Dusts may irritate the respiratory tract, skin and eyes.

Indication of immediate medical attention/special treatment needed: Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General Information: Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

Section 5: Fire-fighting Measures

Suitable Extinguishing Media:

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2). Apply extinguishing media carefully to avoid creating airborne dust. Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.

Unsuitable Extinguishing Media:

Do not use water jet as an extinguisher, as this will spread the fire.

Specific Hazards Arising from the Chemical:

Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard. During fire, gases hazardous to health may be formed. Combustion products may include: carbon oxides. During fire, gases hazardous to health may be formed such as: Carbon oxides.

Special Protective Equipment and Precautions for Fire-Fighters:

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Firefighting Equipment/Instructions:

In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.

Special Methods:

Use standard firefighting procedures and consider the hazards of other involved materials.

General Fire Hazards:

May form combustible dust concentrations in air.

Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment, and Emergency Procedures:

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Use only non-sparking tools. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Wear appropriate protective equipment and clothing during clean-up. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and Materials for Containment and Cleaning Up:

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Take precautionary measures against static discharge. Use only non-sparking tools. Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air). Collect dust using a vacuum cleaner equipped with HEPA filter. This product is miscible in water. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk.

Large Spills: Wet down with water and dike for later disposal. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Minimize dust generation and accumulation. Absorb in vermiculite, dry sand or earth and place into containers. Shovel the material into waste container. Following product recovery, flush area with water.

Small Spills: Sweep up or vacuum up spillage and collect in suitable container for disposal. Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental Precautions:

Avoid discharge into drains, water courses or onto the ground.

Section 7: Handling and Storage

Precautions for Safe Handling:

Minimize dust generation and accumulation. Avoid significant deposits of material, especially on horizontal surfaces, which may become airborne and form combustible dust clouds and may contribute to secondary explosions. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Explosion-proof general and local exhaust ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Avoid breathing dust. Avoid contact with skin and eyes. Avoid prolonged exposure. Wash thoroughly after handling. Wear appropriate personal protective equipment. Handle and open container with care. Observe good industrial hygiene practices.

Conditions for Safe Storage, including any Incompatibilities:

Keep containers tightly closed in a dry, cool and well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep away from heat, sparks and open flame.

Section 8: Exposure Controls / Personal Protection

Occupational Exposure Limits:

No exposure limits noted for ingredient(s).

Biological Limit Values:

No biological exposure limits noted for the ingredient(s).

Appropriate Engineering Controls:

Explosion-proof general and local exhaust ventilation. Good general ventilation 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. Provide eyewash station. Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

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

Skin Protection

Hand Protection: Wear appropriate chemical resistant gloves. Nitrile, butyl rubber or neoprene gloves are recommended. Suitable gloves can be recommended by the glove supplier.

Other Wear suitable protective clothing.

Respiratory Protection: If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure

limits have not been established), an approved respirator must be worn. Use a NIOSH/MSHA approved respirator if there is a risk of exposure to dust/fume at levels exceeding the exposure limits.

Thermal Hazards: Wear appropriate thermal protective clothing, when necessary.

General Hygiene Considerations: When using, do not eat, drink or smoke. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

Section 9: Physical and Chemical Properties	
Appearance	
• Physical State	Solid
• Form	Granules
• Color	White
Odor	Not available
Odor Threshold	Not available
pH	2.2
Melting point/freezing point	307.4 °F (153 °C)
Initial boiling point and boiling range	Not available
Flash point	Not available
Evaporation rate	Not available
Flammability (solid, gas)	Combustible dust
Upper/lower flammability or explosive limits	
• Flammability limit – lower (%)	Not available
• Flammability limit – upper (%)	Not available
• Explosive limit - lower (%)	Not available
• Explosive limit - upper (%)	Not available
Vapor pressure	Not available
Vapor density	Not available
Relative density	Not available
Solubility(ies)	
• Solubility (water)	Soluble
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	1851.8 °F (1011 °C)
Decomposition temperature	Not available
Viscosity	Not available
Other information	
• Explosive properties	Not explosive
• Molecular formula	C6-H8-O7
• Molecular weight	192.12 g/mol
• Oxidizing properties	Not oxidizing

Section 10: Stability and Reactivity	
Reactivity:	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	No dangerous reaction known under conditions of normal use.
Conditions to Avoid:	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Contact with incompatible materials. Minimize dust generation and accumulation. Avoid dispersal

	of dust in the air (i.e., clearing dust surfaces with compressed air).
Incompatible Materials:	Strong oxidizing agents.
Hazardous Decomposition Products:	No hazardous decomposition products are known.

Section 11: Toxicological Information

Information on likely routes of exposure	
• Inhalation	Dust may irritate respiratory system. Inhalation of dusts may cause respiratory irritation.
• Skin contact	Dust or powder may irritate the skin. Dust may irritate skin.
• Eye contact	Causes serious eye irritation. Dust in the eyes will cause irritation.
• Ingestion	May cause discomfort if swallowed.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. May cause respiratory irritation. Dusts may irritate the respiratory tract, skin and eyes.
Information on toxicological effects	
• Acute toxicity	Not expected to be acutely toxic.
• Skin corrosion/irritation	Dust may irritate skin.
• Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory or skin sensitization	
• Respiratory sensitization	Not a respiratory sensitizer.
• Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not classifiable as to carcinogenicity to humans.
IARC Monographs. Overall Evaluation of Carcinogenicity	Not listed
NTP Report on Carcinogens	Not listed
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	Not regulated
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.
Specific target organ toxicity - single exposure	Not classified
Specific target organ toxicity - repeated exposure	Not classified

Aspiration hazard	Not an aspiration hazard.
Further information	Prolonged inhalation may be harmful.

Section 12: Ecological Information	
Ecotoxicity:	The product is 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.
Persistence and Degradability:	No data is available on the degradability of this substance.
Bio-accumulative Potential:	No data available
Mobility in Soil:	The product is soluble in water. Expected to be slightly to moderately mobile in soil.
Other Adverse Effects:	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

Section 13: Disposal Considerations	
Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal Regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

Section 14: Transport Information	
DOT	Not regulated as dangerous goods.
IATA	Not regulated as dangerous goods.
IMDG	Not regulated as dangerous goods.
Transport in bulk according to Annex II of MARPOL 3/78 and the IBC Code	Not applicable

Section 15: Regulatory Information	
US Federal Regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)	Not regulated
CERCLA Hazardous Substance List (40 CFR 302.4)	Not listed
SARA 304 Emergency release notification	Not regulated
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)	Not regulated
Superfund Amendments and Reauthorization Act of 1986 (SARA)	
SARA 302 Extremely hazardous substance	Not listed
SARA 311/312 Hazardous chemical	Yes
Classified hazard categories	Combustible dust Serious eye damage or eye irritation
SARA 313 (TRI reporting)	Not regulated
Other Federal Regulations	
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List	Not regulated
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)	Not regulated
Safe Drinking Water Act (SDWA)	Contains component(s) regulated under the Safe Drinking Water Act.
Food and Drug Administration (FDA)	Total food additive Direct food additive GRAS food additive
US State regulations	
US. Massachusetts RTK - Substance List	Not regulated
US. New Jersey Worker and Community Right-to-Know Act	Not listed
US. Pennsylvania Worker and Community Right-to-Know Law	Not listed
US. Rhode Island RTK	Not regulated

California Proposition 65	California Safe Drinking Water and Toxic Enforcement Act of 2016 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins. For more information go to www.P65Warnings.ca.gov.

International Inventories

Country(s) or Region	Inventory Name	On inventory (Yes/No) *
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

Section 16: Other Information							
SDS Origination Date:	19-June-2014	**Effective Date:**	March 2023	**SDS Rev:**	F	**SDS Prepared By:**	RPC
Further information	Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.						
HMIS® ratings	Health	**2 –** Moderate Hazard - Temporary or minor injury may occur					
	Flammability	**2 –** Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 °F (38 °C) but below 200 °F (93 °C)					
	Physical	**0 –** Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.					
	Personal Protection	**B** – Safety glasses, Gloves					
NFPA ratings	NFPA Health hazard:	**2** - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.					
	NFPA Fire hazard	**2** - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can occur. Under normal conditions, these materials would not form hazardous atmospheres with air, but under high ambient temperatures or under moderate heating they could release vapor in sufficient quantities to produce hazardous atmospheres with air. Materials in this degree also include finely divided suspended solids that do not require heating before ignition can occur. See Annex D for more information on ranking of combustible dusts.					
	NFPA Reactivity	**0** - Material that in themselves are normally stable, even under fire conditions.					
List of abbreviations	TWA	Time Weighted Average Value					
	PBT	Persistent, Bio-accumulative, Toxic					
References	ESIS	European chemical Substances Information System					
	ECHA registered substances database						
	CLP	Regulation on Classification, Labelling and Packaging of Substances and Mixtures					
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