

SAFETY DATA SHEET (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Citrasate Liquid
Product Number:	None
Formula:	Mixture of inorganic salts, sugar and organic acid
Product Use:	Medical Care
Restrictions on Use:	None

SUPPLIER INFORMATION: Fresenius Medical Care

Address:
920 Winter Street
Waltham, MA 02451

Phone Number: 1-800-662-1237
Fax Number: N/A
Email Address: N/A

Emergency Contact Information:
CHEMTREC 1-800-424-9300

2. HAZARDS IDENTIFICATION

CLASSIFICATION AND LABELING (GHS / HMIS / NFPA):

GHS Status		
Pictogram	Classification	Signal Word and Hazard Statements
None	None	None

HMIS Ratings	
HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	B

NFPA Ratings	
HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
SPECIFIC HAZARD	---

POTENTIAL HEALTH EFFECTS

ACUTE EFFECTS:

Eye: Although not classified as hazardous, overexposure associated with non-standard use may result in irritation

Skin: Although not classified as hazardous to skin, overexposure associated with non-standard use may cause irritation.

Inhalation: Although not classified as hazardous by the inhalation route, overexposure associated with non-standard use may irritate the nose, throat and upper respiratory tract.

Ingestion: Although not classified as hazardous by ingestion, exposure to large quantities may cause gastrointestinal irritation, nausea and vomiting.

CHRONIC EFFECTS:

None expected.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Weight % Range ^a
Sodium Chloride	7647-14-5	20.3
Dextrose	50-99-7	3.8
Calcium Chloride	10035-04-8	0.6
Magnesium Chloride	7791-18-6	0.4
Potassium Chloride	7447-40-7	0.8
Citric Acid	77-92-9	0.5
Sodium Acetate	06131-90-4	0.1

a. Product composed of 73.5% water.

4. FIRST AID MEASURES
PROCEDURES

Eye Contact: Flush eyes with copious amounts of water for at least 15 minutes. Get medical attention if irritation, pain, swelling, tearing or other symptoms persist.

Skin Contact: Wash with soap and water. Get medical attention if irritation, pain, swelling or other symptoms persist.

Inhalation: Move to fresh air. Get medical attention if irritation or other symptoms persist.

Ingestion: Contact a physician

Note to Physicians: None known. Use general supportive care.

5. FIRE FIGHTING MEASURES

Unusual Fire and Explosion Hazards: None known.

Extinguishing Media: Alcohol foam, water fog, carbon dioxide or dry chemical as appropriate for surrounding fire.

Special Firefighting Procedures: Use procedures, protective clothing, breathing apparatus, and equipment appropriate for surrounding fire.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions: In case of accidental bulk release, wear appropriate personal protective equipment (PPE), including goggles, boots, gloves, and clothing which covers exposed areas of the arms, legs and torso (PPE must be selected in accordance with Section 8 of this SDS).

Environmental precautions: Avoid dispersal of spilled material and runoff to the environment. Avoid contact with soil and waterways.



Methods and materials for containment: Dilute with water or mop up spill.

Cleanup procedures: Thoroughly collect spill with absorbent material and dispose of in trash.

7. HANDLING AND STORAGE

Handling: Transport in original container in accordance with good industrial hygiene and safety practice. Use PPE in accordance with Section 8 of this SDS while handling. Avoid inhalation and contact with eyes and skin. Keep in the original container or an approved alternative made from a compatible material, keep tightly closed when not in use.

Storage: Store protected from direct sunlight and away from other chemicals in a dry, cool, well-ventilated area, away from incompatible materials. Keep away from food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Other Precautions: None known.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	OSHA Permissible Exposure Limits (PELs)	American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Limit Values (TLVs)	NIOSH Recommended Exposure Limits (RELs)
Sodium Chloride	Not established	Not established	Not established
Dextrose	Not established	Not established	Not established
Calcium Chloride	Not established	Not established	Not established
Magnesium Chloride	Not established	Not established	Not established
Potassium Chloride	Not established	Not established	Not established
Citric Acid	Not established	Not established	Not established
Sodium Acetate	Not established	Not established	Not established

Engineering Controls: Normal building ventilation.

Eye/Face Protection: Safety glasses recommended.

Skin Protection: Wear gloves and suitable clothing to prevent repeated or prolonged skin contact.

Respiratory Protection: Not normally required.

General Hygiene Considerations: Wash hands thoroughly after use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value	Property	Value
Appearance:	Clear aqueous solution	Initial Boiling Point (°F):	Not established
Odor:	Odorless	Boiling Range (°F):	Not established



Property	Value	Property	Value
Odor Threshold:	Not established	Melting point:	Not established
Molecular Weight:	Not established	Specific gravity (g/cc):	Not established
Physical State:	Solid	Viscosity (cps):	Not established
pH:	4.1 – 5.9	Flash Point:	Not established
Vapor Pressure (mm Hg):	Not established	Decomposition Temperature:	Not established
Solubility in Water (20 °C):	Completely	Flammability:	Not flammable
Volatiles, Percent by volume:	Not established	Upper/Lower Flammability Limits:	Not established
Vapor Density (air = 1):	Not established	Auto-ignition Temperature:	Not established
Evaporation Rate:	Not established	Octanol/water partition coefficient:	Not established

10. STABILITY AND REACTIVITY

Stability:	Stable under normal conditions.
Reactivity:	Not reactive under normal conditions.
Conditions to Avoid:	Strong oxidizing solutions.
Materials to Avoid:	Strong oxidants
Hazardous Decomposition Products:	Carbon dioxide gas
Hazardous Polymerization:	Will not occur.
Hazardous reaction conditions:	None known.

11. TOXICOLOGICAL INFORMATION

Potential Exposure Routes: Skin, eye, inhalation, ingestion.

ACUTE ANIMAL TOXICITY DATA:

Chemical Substance	Oral LD50 (mg/kg)	Dermal LD50 (mg/kg)	Inhalation LC50 (4-hour, mg/m ³)
Sodium Chloride	3000 in rat	>10,000 in rabbit	Not established
Dextrose	Not evaluated	Not evaluated	Not evaluated
Calcium Chloride	1000 to 4179 in rat	>2630 in rat	Not established
Magnesium Chloride	2800 in rat	Not established	Not established
Potassium Chloride	2600 in rat	Not established	Not established
Citric Acid	3000 to 11700 in rat	>2,000 in rat	Not established
Sodium Acetate	3500 in rat	>10,000 in rabbit	>30,000 in rat

Skin Corrosion/Irritation:	Prolonged and repeated exposure to product may cause mild skin irritation.
Serious Eye Damage/Irritation:	Prolonged and repeated ocular exposure to product may cause eye irritation.
Respiratory or Skin Irritation:	Not anticipated to be a major inhalation hazard under normal use.
Germ Cell Mutagenicity:	Not classified



Carcinogenicity: Not classified

Reproductive, Teratogenicity, or Developmental Effects: Not classified

STOT- Single Exposure: Not classified

STOT- Repeated Exposure: Not classified

Aspiration Hazard: Not classified

Neurological Effects: None known

Interactions with Other Chemicals Which Enhance Toxicity: None known

12. ECOLOGICAL INFORMATION

Not mandatory

13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State and/or local rules / regulations.

14. TRANSPORT INFORMATION

U.S. DOT Classification: NOT Regulated

15. REGULATORY INFORMATION

Not mandatory

16. OTHER INFORMATION

Company Contacts	Fred Christadore or Larry Park
Telephone:	1-800-662-1237, Extension 101-2580
CHEMTREC:	1-800-424-9300 (Transportation Incidents)

The data included herein are presented according to Fresenius Medical Care North America practices current at the time of preparation hereof, are made available solely for the consideration, investigation and verification of the original recipients hereof and do not constitute a representation or warranty for which Fresenius Medical Care North America assumes responsibility. It is the responsibility of a recipient of this data to remain currently informed on chemical hazard information, to design and update its own safety program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right to know and environmental protection.



FRESENIUS MEDICAL CARE

REVISIONS: This SDS was prepared on July 2, 2015 to conform to 29 CFR Parts 1910.1200(g), 1915, and 1926, known as HazCom 2012.

PREPARED BY: Fresenius Medical Care

NOTICE: This product does not legally require an SDS. The data included herein are presented according to Fresenius Medical Care North America practices current at the time of preparation hereof, are made available solely for the consideration, investigation and verification of the original recipients hereof and do not constitute a representation or warranty for which Fresenius Medical Care North America assumes responsibility. It is the responsibility of a recipient of this data to remain currently informed on chemical hazard information, to design and update its own safety program and to comply with all national, federal, state and local laws and regulations applicable to safety, occupational health, right to know and environmental protection.

Preparation Date: July 2, 2015 Supersedes: N/A