



**SAFETY DATA SHEET
(SDS)**

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Citrasate Dry
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
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2. HAZARDS IDENTIFICATION

CLASSIFICATION AND LABELING (GHS / HMIS / NFPA):

GHS Status		
Pictogram None	Classification Eye Irritant 2B	Signal Word and Hazard Statements Causes Eye Irritation

Precautionary Statements

Prevention: Wash exposed skin thoroughly after handling.

Response: If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

HMIS Ratings	
HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	A

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

POTENTIAL HEALTH EFFECTS

ACUTE EFFECTS:

Eye: Dust may cause irritation and tearing

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
Sodium Chloride	7647-14-5	76.4
Dextrose	50-99-7	14.4
Calcium Chloride	10035-04-8	2.4
Magnesium Chloride	7791-18-6	1.3
Potassium Chloride	7447-40-7	2.9
Citric Acid	77-92-9	2
Sodium Acetate	06131-90-4	0.5

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: Use general supportive care.

5. FIRE FIGHTING MEASURES

Unusual Fire and Explosion Hazards: High dust concentration (of the dextrose) in air may ignite in the presence of an ignition source.

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, respirator, 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:	Sweep, scoop or vacuum into a container.
Cleanup procedures:	Remove all ignition sources. Ventilate the area. Sweep, scoop or vacuum into a container. Thoroughly collect spilled 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

Product is a powder, but contains no substances with occupational exposure limit values. OSHA PELs for particulates not otherwise regulated (PNOR) are 10 mg/m³ (total dust as 8-hour time-weighted average) and 5 mg/m³ (respirable fraction as 8-hour time-weighted average).

Engineering Controls:	Normal building ventilation.
Eye/Face Protection:	Safety glasses, goggles, or face shield recommended. Contact lenses should not be worn when working with this material. Maintain eye wash station in area
Skin Protection:	Wear suitable clothing to prevent repeated or prolonged skin contact under non-standard conditions.
Respiratory Protection:	Not normally required.
General Hygiene Considerations:	Wash hands thoroughly after use.



9. PHYSICAL AND CHEMICAL PROPERTIES

Property	Value	Property	Value
Appearance:	White crystalline powder or granules	Initial Boiling Point (°F):	1413°C (for Sodium Chloride)
Odor:	Odorless	Boiling Range (°F):	Not established
Odor Threshold:	Not established	Melting point:	146°C (for Dextrose)
Molecular Weight:	Not established	Specific gravity (g/cc):	Not established
Physical State:	Solid	Viscosity (cps):	Not established
pH:	Not established	Flash Point:	Not established
Vapor Pressure (mm Hg):	Not established	Decomposition Temperature:	Not established
Solubility in Water (20 °C):	Soluble	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: Li metal, bromine trifluoride, strong oxidizers, sulfuric acid, strong bases.

Conditions to Avoid: Excessive dusting in presence of ignition source.

Materials to Avoid: None known.

Hazardous Decomposition Products: Chloride, CO, CO₂.

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)
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 mg/m ³ in rat

Skin Corrosion/Irritation: Prolonged and repeated exposure to product may cause mild skin irritation.

Serious Eye Damage/Irritation: Ocular exposure to product may cause eye irritation.

Respiratory or Skin Irritation:	Data not available
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

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Preparation Date: July 2, 2015 Supersedes: December 1, 2000 MSDS