

SAFETY DATA SHEET (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	Granuflo
Product Number:	None
Formula:	Mixture
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		
<u>Pictogram</u>	<u>Classification</u>	<u>Signal Word and Hazard Statements</u>
	Serious Eye Damage 1	<b style="color: red;">DANGER Causes Serious Eye Damage

Prevention:	Wear eye protection.
Response:	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.

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: Eye contact may cause tearing and serious eye damage.

Skin: Although not classified as a hazard to skin, over exposure associated with non-standard use may cause mild irritation.

Inhalation: Although not classified as an inhalation hazard, overexposure associated with non-standard use may cause pulmonary irritation.

Ingestion: Although not classified as an ingestion hazard, overexposure associated with non-standard use may result in vomiting, diarrhea, muscle cramps, listlessness, hypotension, and cardiac arrhythmias.

CHRONIC EFFECTS:

Metabolic abnormalities may result from chronic overexposure, including hypernatremia, hypokalemia, and alkalosis.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Weight % Range
Sodium Chloride	7647-14-5	72.3
Potassium Chloride	7447-40-7	2.9
Calcium Chloride	10035-04-8	2.4
Magnesium Chloride	7791-18-6	1
Sodium Diacetate	126-96-5	7.3
Dextrose	50-99-7	14.2

4. FIRST AID MEASURES

PROCEDURES

Eye Contact: Immediately flush eyes with copious amounts of water for at least 15 minutes. Get medical attention.

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.

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:	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 or goggles. Contact lenses should not be worn when working with this material.
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:	White granular powder	Initial Boiling Point (°F):	Not established
Odor:	Odorless	Boiling Range (°F):	Not established
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:	Not established	Flash Point:	Not combustible
Vapor Pressure (mm Hg):	Not established	Decomposition Temperature:	Not established
Solubility in Water (20 °C):	Completely	Flammability:	Not established
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.

Conditions to Avoid: Strong oxidizing solutions.

Materials to Avoid: Strong oxidants.

Hazardous Decomposition Products: None expected.

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
Potassium Chloride	2600 in rat	Not established	Not established
Calcium Chloride	1000 to 4179 in rat	>2630 in rat	Not established
Magnesium Chloride	2800 in rat	Not established	Not established
Sodium Diacetate	5600 in rat	> 2000 in rat	Not established

Skin Corrosion/Irritation: Prolonged skin exposure to product may cause mild skin irritation due to the presence of calcium chloride and sodium diacetate.

Serious Eye Damage/Irritation: Ocular exposure to mixture may cause serious eye damage.



FRESENIUS MEDICAL CARE

Respiratory or Skin Sensitization:	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:	Not classified
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

SARA 313: None

SARA 311, 312 Hazard Class: None

Massachusetts Right-to-Know Status: None

Compliance with federal, provincial/state, and local environmental regulations is the responsibility of the owner.



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.

REVISIONS: This SDS was prepared on June 23, 2015 to conform to 29 CFR Parts 1910.1200(g), 1915, and 1926, known as HazCom 2012.

PREPARED BY: Fresenius Medical Care

NOTICE: 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: June 23, 2015 Supersedes: April 6, 2010 MSDS