

SAFETY DATA SHEET (SDS)

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name:	NaturaLyte (45X) (0000 through 4000 Series)
Product Number:	None
Formula:	Solution: Acetic Acid, Sodium Chloride, Potassium Chloride, Calcium Chloride, Magnesium Chloride, Dextrose
Product Use:	Medical Care
Restrictions on Use:	None

SUPPLIER INFORMATION: Fresenius Medical Care

Address: Renal Product Technologies
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):

<i>GHS Status</i>		
<i>Pictogram</i> <i>None</i>	<i>Classification</i> <i>NOT CLASSIFIED</i>	<i>Signal Word and Hazard Statements</i> <i>None</i>

<i>HMIS Ratings</i>	
<i>HEALTH</i>	<i>1</i>
<i>FLAMMABILITY</i>	<i>0</i>
<i>REACTIVITY</i>	<i>0</i>
<i>PERSONAL PROTECTION</i>	<i>B</i>

<i>NFPA Ratings</i>	
<i>HEALTH</i>	<i>1</i>
<i>FLAMMABILITY</i>	<i>0</i>
<i>REACTIVITY</i>	<i>0</i>
<i>SPECIFIC HAZARD</i>	<i>---</i>

POTENTIAL HEALTH EFFECTS

ACUTE EFFECTS:

Eye: Overexposure associated with non-standard use may cause tearing and irritation.

Skin: Overexposure associated with non-standard use may cause irritation.

Inhalation: May cause pulmonary irritation.

Ingestion: May result in hypotension, hypertension or tachycardia.

CHRONIC EFFECTS:

None expected.



3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS No.	Weight % Range ^a
Acetic Acid	64-19-7	0.8
Sodium Chloride	7647-14-5	20.4
Potassium Chloride	7447-40-7	0.5
Calcium Chloride	10035-04-8	0.4
Magnesium Chloride	7791-00-6	0.2
Dextrose	50-99-7	3.8

a. Product composed of 73.9% water.

4. FIRST AID MEASURES

PROCEDURES

- Eye Contact: Immediately 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: 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, 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. It is generally recommended to avoid contact with eyes, skin and clothing. 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)
Acetic Acid	10 ppm (25 mg/m ³) TWA	10 ppm (25 mg/m ³) TWA, 15 ppm (37 mg/m ³) (STEL)	10 ppm (25 mg/m ³) TWA, 15 ppm (37 mg/m ³) (STEL)
Sodium Chloride	Not established	Not established	Not established
Potassium Chloride	Not established	Not established	Not established
Calcium Chloride	Not established	Not established	Not established
Magnesium Chloride	Not established	Not established	Not established
Dextrose	Not established	Not established	Not established

- Engineering Controls:** Normal building ventilation.
- Eye/Face Protection:** Safety glasses or goggles. Contact lenses should not be worn when working with this material. Maintain eye wash station in area.
- 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
<i>Appearance:</i>	Clear aqueous solution	<i>Initial Boiling Point (°F):</i>	Not established
<i>Odor:</i>	Vinegar-like odor	<i>Boiling Range (°F):</i>	Not established
<i>Odor Threshold:</i>	Not established	<i>Melting point:</i>	Not established
<i>Molecular Weight:</i>	Not established	<i>Specific gravity (g/cc):</i>	1.14 – 1.24
<i>Physical State:</i>	Liquid	<i>Viscosity (cps):</i>	Not established
<i>pH:</i>	2.4 - 2.7	<i>Flash Point:</i>	Not combustible
<i>Vapor Pressure (mm Hg):</i>	Not established	<i>Decomposition Temperature:</i>	Not established
<i>Solubility in Water (20 °C):</i>	Completely	<i>Flammability:</i>	Not flammable
<i>Volatiles, Percent by volume:</i>	Not established	<i>Upper/Lower Flammability Limits:</i>	Not established
<i>Vapor Density (air = 1):</i>	Not established	<i>Auto-ignition Temperature:</i>	Not established
<i>Evaporation Rate:</i>	Not established	<i>Octanol/water partition coefficient:</i>	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/L)
Acetic Acid	3310 to 3530 in rat	1060 in rat	11.4
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	> 5000 in rat	Not established
Magnesium Chloride	2800 in rat	Not established	Not established
Dextrose	Not evaluated	Not evaluated	Not evaluated

Skin Corrosion/Irritation: Not expected under normal use conditions.
 Serious Eye Damage/Irritation: Prolonged or repeated eye exposure to product may cause mild irritation due to presence of acetic acid.
 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

12. 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.

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 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: June 4, 2012 MSDS
