Safety Data Sheet
Sodium Citrate Buffer, pH 6.0

Section 1 - Chemical Product and Company Identification

SDS Name: Sodium Citrate Buffer, pH 6.0
Catalog Numbers: SO-631
Company Identification: Transene Company, Inc., DBA ROWLEY BIOCHEMICAL, Inc.
10 ELECTRONICS AVENUE
DANVERS, MA 01923
For information, call: 978-739-4883
Emergency Number: 800-424-9300
For CHEMTREC assistance, call: 800-424-9300

Section 2 - Hazards Identification

GHS Classifications

H316-Skin corrosion/irritation: 3

Pictograms or Hazard Symbols and Hazard Statement(s):

Signal Word: Warning

Hazard Statements:

H316-Causes mild skin irritation

Precautionary Statements:

P332+P313-If skin irritation occurs: Get medical advice/attention.

Section 3 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent
5949-29-1	Citric Acid Monohydrate	0.2 w/v
1310-73-2	Sodium Hydroxide	<0.1 v/v
7732-18-5	Water	Balance

Section 4 - First Aid Measures

Eye Exposure: In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Get medical attention.

Dermal Exposure: In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention.

Oral Exposure: If swallowed, get immediate medical advice.

Inhalation Exposure: If inhaled, remove to fresh air. If breathing becomes difficult, call a physician.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use dry chemical, carbon dioxide, dry sand, water spray, or alcohol-resistant foam.

Hazardous Combustion Products: Carbon oxides, sodium oxides, hydrogen, irritating and toxic fumes and gases.

Flash Point: Not available
Autoignition Temperature: Not available
Explosion Limits, Lower: Not available
Upper: Not available
NFPA Rating: (estimated) Health: 1; Flammability: 0; Instability: 0

Section 6 - Accidental Release Measures

Procedure(s) of Personal Precaution(s):
Wear personal protective equipment. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Ensure adequate ventilation.

Methods for Cleaning up: Absorb with sand, earth, or vermiculite. Carefully sweep up and containerize for proper disposal. Do not release to the environment. Do not release to drains.

Section 7 - Handling and Storage

Use care when handling. Wear personal protective equipment. Wash thoroughly after handling. Ensure adequate ventilation. Do not ingest or inhale. Do not get on skin or clothing. Do not get in eyes. Keep in a tightly closed container. **Store in the refrigerator (4˚C).** Keep away from incompatible materials.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.
Personal Protective Equipment
Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.
Skin: Wear appropriate protective gloves to prevent skin exposure.
Clothing: Wear appropriate protective clothing to prevent skin exposure.
Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Exposure Limits:

Chemical Name	ACGIH - TLV	NIOSH - IDLH	OSHA – Final PELs
Citric Acid Monohydrate CAS#5949-29-1	Not listed	Not listed	Not listed
Sodium Hydroxide CAS#1310-73-2	2 mg/m3 Ceiling	2 mg/m3 Ceiling 10 mg/m3 IDLH	2 mg/m3 Ceiling 2 mg/m3 TWA

Section 9 - Physical and Chemical Properties

Physical State: Liquid
Appearance: Clear, colorless
Odor: Odorless
Vapor Pressure: Not available
Odor Threshold: Not available
Vapor Density: Not available
pH: 6.00
Relative Density: Not available
Melting point/freezing point: Not available
Solubility: Soluble in water
Boiling Point: Not available
Flash Point: Not available
Evaporation Rate: Not available
Flammability (solid, gas): Not available
Partition coefficient: n-octanol/water: Not available
Autoignition Temperature: Not available
Decomposition Temperature: Not available
Viscosity: Not available
Specific Gravity/Density: Not available

Section 10 - Stability and Reactivity

Chemical Stability: Stable in closed containers under normal storage and handling conditions. **Keep refrigerated (4˚C).**
Conditions to Avoid: Incompatible materials, ignition sources, and excess heat.
Incompatibilities with Other Materials: Strong oxidizing agents, strong bases, metals, acids, water, aluminum, brass, metal alloys, zinc, and tin.
Hazardous Decomposition Products: Carbon oxides, sodium oxides, hydrogen, irritating and toxic fumes and gases.

Section 11 - Toxicological Information

CAS#5949-29-1 Citric Acid Monohydrate: RTECS#: GE7810000
LD50 Oral: 5.79 g/kg (mouse)
LD50 Dermal: >2000 mg/kg (rat) (anhydrous)
LC50 Inhalation: Not available

Carcinogenicity: Citric Acid Monohydrate CAS#5949-29-1 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

CAS#1310-73-2 Sodium Hydroxide: RTECS#: WB4900000
LD50 Oral: 140-340 mg/kg (rat)
LD50 Dermal: 1350 mg/kg (rabbit)
LC50 Inhalation: Not available

Carcinogenicity: Sodium Hydroxide CAS#1310-73-2 is not listed by IARC, NTP, ACGIH, OSHA, or California Prop. 65.

Information on the likely routes of exposure: Routes of entry anticipated: oral, dermal, inhalation, and eye.

Epidemiology: Not available.
Teratogenicity: Not available.
Reproductive Effects: Not available.
Developmental Effects: Not available.
Neurotoxicity: Not available.
Mutagenicity: Not available.
Specific Target Organ Toxicity, Single Exposure: Not available.
Specific Target Organ Toxicity, Repeated Exposure: Not available.

Symptoms associated with exposure: Dermatitis, vomiting, diarrhea, tooth enamel damage, burning sensation, cough, wheezing, laryngitis, shortness of breath, spasm, inflammation and edema of the larynx/bronchi, and pulmonary edema.

The toxicological properties of this material have not been thoroughly investigated.

Section 12 - Ecological Information

Ecotoxicity: Do not release to the environment. Do not release to drains.

CAS#5949-29-1 Citric Acid Monohydrate:
LC50, freshwater fish: 440-760 mg/L 96h (leuciscus idus)(golden orfe)
EC50, water flea: 120 mg/L 72h (daphnia magna)
EC50, microtox: 14 mg/L 15min (photobacterium phosphoreum)

CAS#1310-73-2 Sodium Hydroxide:
LC50, freshwater fish: 45.4 mg/L 96h static (oncorhynchus mykiss)(rainbow trout)
LC50, freshwater fish: 125 mg/L 96h (gambusia affinis)(mosquito fish)
EC50, water flea: 40.4 mg/L 48h (ceriodaphnia)
EC50, bacteria: 22 mg/L 15 min (photobacterium phosphoreum)

Persistence and degradability: Not available.
Bio-accumulative potential: Not available.
Mobility: Will likely be mobile in the environment due to its water solubility.

Section 13 - Disposal Considerations

DISPOSAL: Dispose of in accordance with all federal, state, and local regulations.

Section 14 – Transport Information

DOT
Non-Regulated

Section 15 - Regulatory Information

Canada Regulatory Information

WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

Section 16 - Additional Information

SDS Creation Date: 10-7-22
Revision #1: 6-2-25

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