

# Safety Data Sheet

## Sour Solution



### Section 1 Product Description

**Product Name:** Sour Solution  
**Recommended Use:** Science education applications  
**Synonyms:** Citric Acid Solution  
**Distributor:** Carolina Biological Supply Company  
2700 York Road, Burlington, NC 27215  
1-800-227-1150  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2 Hazard Identification

**Classification of the chemical in accordance with paragraph (d) of §1910.1200;**

Not a dangerous substance according to GHS classification criteria. No known OSHA hazards.

**GHS Classification:**

### Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Water	7732-18-5	99.45
Citric Acid, Anhydrous	77-92-9	0.5
Sodium Benzoate	532-32-1	0.05

### Section 4 First Aid Measures

#### Emergency and First Aid Procedures

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**Skin Contact:** After contact with skin, wash immediately with plenty of water.  
**Ingestion:** If swallowed, rinse mouth with water (only if the person is conscious).

### Section 5 Firefighting Procedures

**Extinguishing Media:** Use media suitable to extinguish surrounding fire.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** None Known  
**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

### Section 6 Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** No health affects expected from the clean-up of this material if contact can be avoided. Follow personal protective equipment recommendations found in Section 8 of this (M)SDS. Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

### Section 7 Handling and Storage

**Handling:** Avoid contact with eyes.  
**Storage:** Keep container tightly closed in a cool, well-ventilated place.

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Storage Code: Green - general chemical storage

## Section 8 Protection Information

Chemical Name	ACGIH		OSHA PEL	
	(TWA)	(STEL)	(TWA)	(STEL)
Citric Acid	N/A	N/A	N/A	N/A
Sodium Benzoate	N/A	N/A	N/A	N/A

### Control Parameters

<b>Engineering Measures:</b>	No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.
<b>Personal Protective Equipment (PPE):</b>	Lab coat, apron, eye wash, safety shower.
<b>Respiratory Protection:</b>	No respiratory protection required under normal conditions of use.
<b>Eye Protection:</b>	Wear chemical splash goggles when handling this product. Have an eye wash station available.
<b>Skin Protection:</b>	Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.
<b>Gloves:</b>	No information available

## Section 9 Physical Data

<b>Formula:</b> See Section 3	<b>Vapor Pressure:</b> No data available
<b>Molecular Weight:</b> No data available	<b>Evaporation Rate (BuAc=1):</b> No data available
<b>Appearance:</b> Colorless Liquid	<b>Vapor Density (Air=1):</b> No data available
<b>Odor:</b> No data available	<b>Specific Gravity:</b> 1
<b>Odor Threshold:</b> No data available	<b>Solubility in Water:</b> Soluble
<b>pH:</b> No data available	<b>Log Pow (calculated):</b> No data available
<b>Melting Point:</b> 0 C	<b>Autoignition Temperature:</b> No data available
<b>Boiling Point:</b> 100 C	<b>Decomposition Temperature:</b> No data available
<b>Flash Point:</b> No data available	<b>Viscosity:</b> 10
<b>Flammable Limits in Air:</b> No data available	<b>Percent Volatile by Volume:</b> No data available

## Section 10 Reactivity Data

<b>Reactivity:</b>	Not generally reactive under normal conditions.
<b>Chemical Stability:</b>	Stable under normal conditions.
<b>Conditions to Avoid:</b>	None known.
<b>Incompatible Materials:</b>	Water-reactive materials
<b>Hazardous Polymerization:</b>	Will not occur

## Section 11 Toxicity Data

<b>Routes of Entry</b>	Ingestion.
<b>Symptoms (Acute):</b>	No data available
<b>Delayed Effects:</b>	No data available

### Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Citric Acid, Anhydrous	77-92-9	Oral LD50 Rat 3 GM/KG		
Sodium Benzoate	532-32-1	Oral LD50 Rat 2100 mg/kg		

### Carcinogenicity:

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Chemical Name	CAS Number	IARC	NTP	OSHA
Citric Acid, Anhydrous	77-92-9	Not listed	Not listed	Not listed
Sodium Benzoate	532-32-1	Not listed	Not listed	Not listed

## Chronic Effects:

<b>Mutagenicity:</b>	No evidence of a mutagenic effect.
<b>Teratogenicity:</b>	No evidence of a teratogenic effect (birth defect).
<b>Sensitization:</b>	No evidence of a sensitization effect.
<b>Reproductive:</b>	No evidence of negative reproductive effects.
<b>Target Organ Effects:</b>	
<b>Acute:</b>	No information available
<b>Chronic:</b>	No information available

## Section 12 Ecological Data

<b>Overview:</b>	This material is not expected to be harmful to the ecology.
<b>Mobility:</b>	This material is expected to have very high mobility in soil. It does not absorb to most soil types.
<b>Persistence:</b>	Dissolved into water, Biodegradation
<b>Bioaccumulation:</b>	Bioconcentration is not expected to occur.
<b>Degradability:</b>	Biodegrades very quickly.
<b>Other Adverse Effects:</b>	No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Citric Acid, Anhydrous	77-92-9	96 HR LC50 LEPOMIS MACROCHIRUS 1516 MG/L [STATIC] 72 HR EC50 DAPHNIA MAGNA 120 MG/L
Sodium Benzoate	532-32-1	Aquatic LC50 (96h) Fathead Minnow > 100 MG/L Aquatic EC50 (48h) Daphnia < 650 MG/L

## Section 13 Disposal Information

<b>Disposal Methods:</b>	Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
<b>Waste Disposal Code(s):</b>	Not Determined

## Section 14 Transport Information

<b>Ground - DOT Proper Shipping Name:</b> Not regulated for transport by US DOT.	<b>Air - IATA Proper Shipping Name:</b> Not regulated for air transport by IATA.
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## Section 15 Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Citric Acid, Anhydrous	77-92-9	No	No	No	No	No
Sodium Benzoate	532-32-1	No	No	No	No	No

## Section 16 Additional Information

**Revised: 09/03/2014**                      **Replaces: 08/27/2014**                      **Printed: 04-21-2015**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

### Glossary

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ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health