

**SAFETY DATA SHEET**  
**TersOx™ Buffer - Soda Ash**



Revision date: 4/19/2022  
Version 1.0

**1. PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier**

Product Name: TersOx™ Buffer - Soda Ash  
Synonyms: Soda Ash, Sodium Carbonate, Carbonic Acid Sodium Salt  
Chemical Family: Disodium carbonate  
CAS Number: 497-19-8  
Formula: Na<sub>2</sub>CO<sub>3</sub>

**Recommended use of the chemical and restrictions on use**

Recommended Use: For use in buffering acid buildup in soil, sludge, and groundwater bioremediation

Restrictions on Use: Use as recommended by the label

**Details of the supplier and of the safety data sheet**

Supplier: Tersus Environmental, LLC  
1116 Colonial Club Rd  
Wake Forest, NC 27587  
Phone: +1-919-453-5577  
Email: [info@tersusenv.com](mailto:info@tersusenv.com)

**Emergency telephone number**

For leak, fire, spill or accident emergencies, call:

- +1-919-453-5577 (Tersus Office Hours, 8:00 AM to 5:00 PM Eastern)
- +1-919-638-7892 (Tersus Outside office hours)
- +1-800-424-9300 (Chemtrec 24 Hour Service – Emergency Only)
- +1-703-527-3887 (Chemtrec Outside United States 24 Hour Service – Emergency Only)

**2. HAZARD IDENTIFICATION**

**Classification**

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)  
Eye irritation (Category 2A), H319  
For the full text of the H-Statements mentioned in this Section, see Section 16.

**GHS Label elements, including precautionary statements**

**Label elements**

Hazard Pictograms



**Signal word**            Warning**Hazard Statements**

H319	Causes serious eye irritation.
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**Precautionary statements**

P264	Wash skin thoroughly after handling.
P280	Wear eye protection/ face protection.
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313	If eye irritation persists: Get medical advice/ attention.

**Hazards not otherwise classified (HNOC) or not covered by GHS**

None

<b>3. COMPOSITION/INFORMATION ON INGREDIENTS</b>
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Synonyms	Soda Ash, Sodium Carbonate, Carbonic Acid Sodium Salt
Chemical Formula	Na <sub>2</sub> CO <sub>3</sub>
Molecular weight	105.99 g/mol
CAS-No.	497-19-8
EC-No.	207-838-8
Index-No.	011-005-00-2

**Component**

Chemical Name	Classification	Concentration (wt. %)
Sodium Carbonate	Eye Irrit. 2A; H319	< = 100

For the full text of the H-Statements mentioned in this Section, see Section 16.

<b>4. FIRST AID MEASURES</b>
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**4.1 Description of first-aid measures****General advice:** Show this material safety data sheet to the doctor in attendance.**If inhaled:** After inhalation: fresh air. In case of skin contact  
In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/  
shower.**In case of eye contact:** After eye contact: rinse out with plenty of water. Call in ophthalmologist.  
Remove contact lenses.**If swallowed:** After swallowing: immediately make victim drink water (two glasses at most).  
Consult a physician.**4.2 Most important symptoms and effects, both acute and delayed**The most important known symptoms and effects are described in the labelling (see section 2)  
and/or in section 11.**4.3 Indication of any immediate medical attention and special treatment needed**

No data available

## 5. FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media

#### Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

#### Unsuitable extinguishing media

For this substance/mixture no limitations of extinguishing agents are given.

### 5.2 Special hazards arising from the substance or mixture

Carbon oxides

Sodium oxides

Combustible: Development of hazardous combustion gases or vapors possible in the event of fire.

### 5.3 Advice for firefighters

In the event of fire, wear self-contained breathing apparatus.

### 5.4 Further information

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

## 6. ACCIDENTAL RELEASE MEASURES

<b>Personal precautions, protective equipment, and emergency procedures</b>	Advice for non-emergency personnel: Avoid inhalation of dusts. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.
<b>Environmental precautions</b>	Do not let product enter drains.
<b>Methods for containment and clean up</b>	Spilled product should be removed immediately to avoid formation of dust. Contain spill, sweep up avoiding airborne dust. Provide sufficient ventilation. Avoid wash down except for small traces.
<b>Reference to other sections</b>	For disposal see section 13.

## 7. HANDLING AND STORAGE

<b>Precautions for safe handling</b>	<ul style="list-style-type: none"> <li>Avoid formation of dust. Provide adequate ventilation of the room when handling this product.</li> </ul>
<b>Hygiene measures</b>	<ul style="list-style-type: none"> <li>Provide eyewash capability.</li> </ul>
<b>Conditions for safe storage, including any incompatibilities</b>	<ul style="list-style-type: none"> <li>Tightly closed. Dry.</li> <li>Storage class (TRGS 510): 13: Non-Combustible Solids</li> </ul>

## 8. EXPOSURE CONTROL / PERSONAL PROTECTION

### Control parameters

Exposure guidelines, ingredients with workplace control parameters.

### Exposure

CAS No.	Ingredient	Source	Value
497-19-8	Sodium carbonate (Na <sub>2</sub> CO <sub>3</sub> )	OSHA	No Established Limit
		ACGIH	No Established Limit

**Exposure Control**

Appropriate engineering controls	Provide adequate ventilation. Change contaminated clothing. Wash hands after working with substance.
Eye/face protection	Safety glasses with side shield or face shield, or chemical goggles.
Respiratory protection	Dust mask or respirator for particle removal (NIOSH)
Skin	Wear long-sleeve shirt, trousers, safety shoes, gloves (rubber or vinyl)
Hygiene measures	Maintain good housekeeping. Avoid dusty conditions. Wash hands and exposed skin after contact. Avoid contact with food or food preparation surfaces. If exposure of food surfaces occurs, wash with germicidal detergent or chlorine bleach. Remove and wash contaminated clothing.

<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>
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**Information on basic physical and chemical properties**

<b>Appearance</b>	White crystalline powder
<b>Odor</b>	None
<b>Odor threshold</b>	Not determined
<b>pH</b>	12 at 106 g/l at 25 °C (77 °F)
<b>Melting point / freezing point</b>	Melting point/range: 851 °C (1564 °F) - lit.
<b>Initial boiling point and boiling range</b>	1,600 °C 2,912 °F - (decomposition)
<b>Flash Point</b>	Not Applicable
<b>Evaporation rate (Ether = 1)</b>	No data available
<b>Flammability (solid, gas)</b>	Not Applicable
<b><u>Upper/lower flammability or explosive limits</u></b>	
Lower Explosive Limit:	Not Measured
Upper Explosive Limit:	Not Measured
<b>Vapor pressure (Pa)</b>	Not Measured
<b>Vapor Density</b>	Not Measured
<b>Specific Gravity</b>	2.2-2.5 at 25 °C
<b>Solubility in Water</b>	ca.212.5 g/l at 20 °C (68 °F) - OECD Test Guideline 105 - completely soluble
<b>Partition coefficient n-octanol/water (Log Kow)</b>	Not Measured
<b>Auto-ignition temperature</b>	Not Measured
<b>Decomposition temperature</b>	400 °C (752 °F)
<b>Viscosity (cSt)</b>	Not Measured

<b>10. STABILITY AND REACTIVITY</b>
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<b>Chemical stability</b>	<ul style="list-style-type: none"> <li>The product is chemically stable under standard ambient conditions (room temperature).</li> <li>Hygroscopic</li> </ul>
<b>Possibility of hazardous reactions</b>	<ul style="list-style-type: none"> <li>None known</li> </ul>
<b>Conditions to avoid</b>	<ul style="list-style-type: none"> <li>Exposure to air or moisture over prolonged periods.</li> </ul>

**Incompatible materials**      • Aluminum, powdered aluminum, and acid.

**Hazardous polymerization**      • Hazardous polymerization does not occur.

## 11. TOXICOLOGICAL INFORMATION

### **Acute Toxicity**

LD50 Oral - rat – 2,800 mg/kg

LD50 Dermal – rabbit >2,000 mg/kg

LD50 Inhalation - rat – 2.30 mg/l, 2-hour exposure time

### **Corrosion/irritation**

Skin - rabbit

Result: Mild skin irritation – 24 hours

### **Serious eye damage/eye irritation**

Eyes - rabbit

Result: Severe eye irritation – 24 hours

Respiratory or skin sensitization

Inhalation - no data available

Skin Sensitization: no data available

### **Germ cell mutagenicity**

No data available

### **Carcinogenicity**

No data available

### **Reproductive toxicity**

No data available

### **Specific target organ toxicity - single exposure**

No data available

### **Specific target organ toxicity - repeated exposure**

No data available

### **Chronic effects from short and long-term exposure**

On continuous / repeated exposure / contact: Red skin. Dry skin. Tingling / irritation of the skin. Affection of the nasal septum.

## 12. ECOLOGICAL INFORMATION

### **Toxicity**

	Parameter	Method	Value	Duration	Species	Test Design	Fresh/Salt Water	Value Determination
Acute toxicity fishes	LC50 Other	Other	300 mg/l	96 h	Lepomis macronchirus	Static system	Fresh water	Experimental value
Acute toxicity invertebrates	EC50	Other	200-227 mg/l	48 h	Ceriodaphnia sp.	Semi static	Fresh water	Experimental value

	Parameter	Method	Value	Duration	Species	Test Design	Fresh/Salt Water	Value Determination
Toxicity algae and other aquatic plants	EC50		242 mg/l	5 days	Algae			Experimental value

**Persistence and degradability**

Readily biodegradable

**Bioaccumulative potential**

Low potential for bioaccumulation (Log Kow &lt;4)

**Mobility in Soil**

Low potential for absorption in soil

**Results of PBT and VPVB Assessment**

PBT/vPvB assessment not available as chemical safety assessment is not required/not conducted.

**Other adverse effects**

Information not available.

**13. DISPOSAL CONSIDERATIONS****Waste Disposal Methods**

Remove waste in accordance with local and/or national regulations. Contact a licensed professional waste disposal service to dispose of this material. Different types of hazardous waste should not be mixed if it will entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. Do not discharge into drains.

**14. TRANSPORTATION INFORMATION****DOT**

Proper Shipping Name Chemicals not otherwise indexed (NOI) non-hazardous.

**UN Number**

Not classified as Hazardous according to Regulation (EC) 1272/2008.

**15. REGULATORY INFORMATION****Regulatory Overview**

All ingredients used are listed on the USEPA TSCA Inventory list.

**OSHA: Not hazardous under 29 CFR 1910.1200****SARA 302 Components**

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

**SARA 313 Components**

SARA 313: This material does not contain any chemical with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

**SARA 311/312 Hazards**

Acute Health Hazard

**Pennsylvania Right to Know Components**

Sodium carbonate, CAS-No: 497-19-8

**New Jersey Right to Know Components**

Sodium carbonate, CAS-No: 497-19-8

**WHMIS Classification: C, D2**

Note: The product listed on this SDS has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations.

**US California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

**16. OTHER INFORMATION**

Mixture classified as not dangerous according to Regulation (EC) 1272/2008.

Observe employment restrictions for people.

Product is not listed with IARC, NTP, ACGIH or OSHA as a carcinogen.

Components not precisely identified are proprietary or non-hazardous. All chemical ingredients appear on the EPA TSCA inventory.

**Full Text Of H-Statements**

Eye Irrit. H319	Eye Irritation Causes serious eye irritation
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**HMIS Rating**

Health Hazard:	2
Flammability:	0
Physical Hazard:	0

**NFPA Rating**

Health Hazard:	2
Fire Hazard:	0
Reactivity Hazard:	0

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**End of Safety Data Sheet**