SAFETY DATA SHEET CHEMSEARCH 777 PLUS

Supercedes Date: 05/23/2018 **Issuing Date:** 09/07/2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: CHEMSEARCH 777 PLUS
Recommended use Water treatment chemical
Information on Manufacturer
CHEM-AQUA, INC
BOX 152170
IRVING, TEXAS 75015

Product Code: C360
Chemical nature Aqueous solution of alkali salts
Emergency Telephone
CHEMTREC® 800-424-9300
Telephone inquiry
972-579-2477

2. HAZARD IDENTIFICATION

Color Dark violet **Physical state** Liquid **Odor** Sweet
Appearance Transparent

GHS Classification

Physical Hazards

Corrosive to metals	Category 1

Health Hazard

Acute toxicity - Oral	Category 4
Skin corrosion/irritation	Category 1
Serious eye damage/eye irritation	Category 1
Carcinogenicity	Category 2
Reproductive toxicity	Category 2

Hazards not otherwise classified (HNOC)
Not applied

Labeling
Signal word
Danger

Hazard statements
Harmful if swallowed
Causes severe skin burns and eye damage
Suspected of causing cancer
Suspected of damaging fertility or the unborn child
May be corrosive to metals

Precautionary statements
Do not handle until all safety precautions have been read and understood
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves, protective clothing, eye protection and face protection.
Do not eat, drink or smoke when using this product
Do not breathe mist
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower. If skin irritation or rash occurs, get medical attention. Wash contaminated clothing before reuse.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a physician.
IF INHALED: Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory symptoms, call a physician.
IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician if unwell.
IF exposed or concerned: Get medical advice/attention
Absorb spillage to prevent material damage
Store in a corrosion-resistant container.
Dispose of contents/containers in accordance with local regulations

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical name	CAS No	Weight-%
Sodium nitrite	7632-00-0	3-7
Sodium borate decahydrate	1303-96-4	1-5

Sodium hydroxide	1310-73-2	1-5
Phenolphthalein	77-09-8	0.1-1.0

*The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

General advice Show this safety data sheet to the doctor in attendance. Immediate medical attention is required. IF exposed or concerned: Get medical advice/attention.

Eye contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get immediate medical attention.

Skin contact Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.

Inhalation Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical attention.

Ingestion Rinse mouth. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Get immediate medical attention.

Self-protection of the first aider Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8). Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation.

Most important symptoms and effects, both acute and delayed

Symptoms Burning sensation.

Indication of any immediate medical attention and special treatment needed

Note to physicians Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

5. FIRE-FIGHTING MEASURES

Flash Point Does not flash **Method** No data available

Flammability Limits in Air %: Hydrogen, by reaction with metals. **Upper flammability limit:** 75 **Lower flammability limit:** 4

Suitable Extinguishing Media

Water spray. Carbon dioxide (CO2). Foam. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Specific hazards arising from the chemical

Material can create slippery conditions. Contact with metals may evolve flammable hydrogen gas.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, NOHSC (approved or equivalent) and full protective gear.

NFPA	**Health hazards** 3	**Flammability** 0	**Stability** 0
HMIS	**Health hazards** 3 *	**Flammability** 0	**Physical Hazard** 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Use personal protective equipment. Ensure adequate ventilation. Prevent further leakage or spillage if safe to do so. Material can create slippery conditions.

Environmental precautions Do not flush into surface water or sanitary sewer system.

Methods for Containment Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

Methods for Cleaning Up Pick up and transfer to properly labeled containers.

Neutralizing Agent Acetic acid, diluted.

7. HANDLING AND STORAGE

Handling Do not get in eyes, on skin or on clothing. Do not breathe mist.

Storage Store in original container. Metal containers must be lined. Keep in a dry, cool and well-ventilated place. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

Storage Temperature	**Minimum**	40 °F / 4 °C			**Maximum**	120 °F / 49 °C	
Storage Conditions	**Indoor**	X	**Outdoor**		**Heated**		**Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Chemical name	CAL/OSHA PEL	ACGIH TLV	OSHA PEL	NIOSH
Sodium borate decahydrate	No data available	TWA: 2 mg/m^3 inhalable particulate matter STEL: 6 mg/m^3	No information available	TWA: 5 mg/m^3 TWA: 1 mg/m^3
Sodium hydroxide	No data available	Ceiling: 2 mg/m^3	TWA: 2 mg/m^3	10 mg/m^3 Ceiling: 2 mg/m^3

Engineering Measures Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.

Personal Protective Equipment

- **Eye/Face Protection** Tightly fitting safety goggles. Face-shield.
- **Skin Protection** Wear suitable protective clothing, Impervious gloves.
- **Respiratory Protection** In case of inadequate ventilation wear respiratory protection. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General Hygiene Considerations Wear protective gloves/clothing. Ensure that eyewash stations and safety showers are close to the workstation location. Remove and wash contaminated clothing before re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid	**Kinematic viscosity**	Non viscous
Color	Dark violet	**Odor**	Sweet
Odor threshold	Not applicable	**Appearance**	Transparent
pH	12	**Specific Gravity**	1.084
Evaporation Rate	0.55 (Butyl acetate=1)	**Percent Volatile (Volume)**	94.4
VOC content	0	**VOC Content (g/L)**	0
Product VP (mmHg @ 70°F)	15.5226	**Relative vapor density**	0.6 (air = 1)
Solubility(ies)	Completely soluble	**n-Octanol/Water Partition**	No data available
Melting Point/Range	No data available	**Decomposition temperature**	No data available
Boiling Point/Range	No data available	**Flammability (solid, gas)**	No data available
Flash Point	Does not flash	**Method**	No data available
Autoignition Temperature	No information available		
Flammability Limits in Air %:	Hydrogen, by reaction with metals	**Upper flammability limit:** 75 **Lower flammability limit:** 4	

10. STABILITY AND REACTIVITY

Chemical Stability Stable. Hazardous polymerization does not occur.
Conditions to Avoid None known.
Incompatible Products Strong oxidizing agents, Acids, Alkali metals, Ammonia, Amines, Reducing agents, Combustible material, Nitrates, Organic materials.
Decomposition temperature No data available
Hazardous decomposition products Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas, Sulfur oxides, Hydrogen, by reaction with metals, Sodium oxides, Metal oxides.
Possibility of Hazardous Reactions None under normal processing.

11. TOXICOLOGICAL INFORMATION

Product Information No information available

The following values are calculated based on chapter 3.1 of the GHS document

ATEmix (oral) No information available
ATEmix (dermal) No information available
Inhalation LC50

- **ATEmix (inhalation-gas)** No information available
- **ATEmix (inhalation-dust/mist)** No information available
- **ATEmix (inhalation-vapor)** No information available

Principle Route of Exposure Skin contact, Eye contact, Inhalation.
Primary Routes of Entry Skin contact, Ingestion, Skin Absorption.
Acute Effects:

- **Eyes** Corrosive to the eyes and may cause severe damage including blindness.
- **Skin** Causes severe skin burns.
- **Inhalation** Causes burns. Methemoglobinemia. Blood disorder may occur after prolonged inhalation.
- **Ingestion** Harmful if swallowed. If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Blood disorder may occur after ingestion. Components of the product create formation of methemoglobin.

Chronic toxicity Inhaled corrosive substances can lead to a toxic edema of the lungs. Liver and kidney injuries may occur. Contains a known or suspected reproductive toxin. Contains a known or suspected carcinogen.
Target organ effects Skin, Eyes, Respiratory system.
Aggravated Medical Conditions Skin disorders, Respiratory disorders, Neurological disorders, Blood disorders, Liver disorders, Kidney disorders, Heart disease.

Component Information

Acute Toxicity

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50	Draize Test	Others
Sodium nitrite 7632-00-0	85 mg/kg (Rat)	No information available	5.5 mg/L (Rat) 4 h	No data available	No data available
Sodium borate decahydrate 1303-96-4	2660 mg/kg (Rat)	> 2000 mg/kg (Rabbit)	> 2 mg/m^3 (Rat) 4 h	No data available	No data available
Sodium hydroxide 1310-73-2	325 mg/kg (rat)	= 1350 mg/kg (rabbit)	No information available	No data available	No data available

Chemical name	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Sodium borate decahydrate 1303-96-4	No data available	No data available	No data available	X	Skin Eyes Respiratory system
Sodium hydroxide 1310-73-2	No data available	No data available	No data available	No data available	Skin Eyes Respiratory system
Phenolphthalein 77-09-8	No data available	No data available	No data available	X	No data available

Carcinogenicity

Chemical name	ACGIH	IARC	NTP	OSHA	Other
Phenolphthalein 77-09-8	-	Group 2B	Reasonably Anticipated	X	Not applicable

12. ECOLOGICAL INFORMATION

Product Information No information available

Persistence and Degradability No information available
Bioaccumulation No information available
Mobility No information available

Additional Ecological Information: No information available

Component Information

Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to microorganisms	Crustacea	Partition coefficient
Sodium nitrite	No information available	LC50 0.092 - 0.13 mg/L Oncorhynchus mykiss 96 h LC50 0.4 - 0.6 mg/L Oncorhynchus mykiss 96 h LC50 0.65 - 1 mg/L Oncorhynchus mykiss 96 h LC50 = 0.19 mg/L Oncorhynchus mykiss 96 h LC50 = 2.3 mg/L Pimephales promelas 96 h LC50 = 20 mg/L Pimephales promelas 96 h	No information available	No information available	-3.7
Sodium borate decahydrate	EC50 2.6 - 21.8 mg/L Pseudokirchneriella subcapitata 96 h EC50 = 158 mg/L Desmodesmus subspicatus 96 h	LC50 = 340 mg/L Limanda limanda 96 h	No information available	1085 - 1402: 48 h Daphnia magna mg/L LC50	-
Sodium hydroxide	No information available	CL50 (Oncorhynchus mykiss, 96h) = 45.4 mg/L	No information available	No information available	-

Persistence and degradability No information available.
Bioaccumulation No information available.
Mobility No information available.

13. DISPOSAL CONSIDERATIONS

Product Disposal Dispose of in accordance with local regulations.
Container Disposal Empty containers should be taken for local recycling, recovery, or waste disposal.

14. TRANSPORT INFORMATION

DOT

Proper shipping name Corrosive liquid, basic, inorganic, n.o.s.
Transport hazard class(es) 8
UN number or ID number UN3266
Packing group II
Reportable Quantity (RQ) Sodium Nitrite RQ = 1851.44 lbs
Description UN3266, Corrosive liquid, basic, inorganic,n.o.s.,(Sodium hydroxide), 8, PG II

TDG

UN proper shipping name	Corrosive liquid, basic, inorganic, n.o.s.
Transport hazard class(es)	8
UN number or ID number	UN3266
Packing group	II
Description	UN3266, Corrosive liquid, basic, inorganic,n.o.s.,(Sodium hydroxide), 8, PG II

ICAO (air)

UN number or ID number	UN3266
UN proper shipping name	Corrosive liquid, basic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing group	II
Description	UN3266, Corrosive liquid, basic, inorganic,n.o.s.,(Sodium hydroxide), 8, PG II

IATA

UN number or ID number	UN3266
UN proper shipping name	Corrosive liquid, basic, inorganic, n.o.s.
Transport hazard class(es)	8
Packing group	II
ERG-Code	9L
Description	UN3266, Corrosive liquid, basic, inorganic,n.o.s.,(Sodium hydroxide), 8, PG II

IMDG

UN proper shipping name	Corrosive liquid, basic, inorganic, n.o.s.
Transport hazard class(es)	8
UN number or ID number	UN3266
Packing group	II
EmS-No	F-A, S-F
Description	UN3266, Corrosive liquid, basic, inorganic,n.o.s.,(Sodium hydroxide), 8, PG II

15. REGULATORY INFORMATION

Inventories

TSCA	Listed
DSL/NDSL	Listed

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	CAS No	Weight-%	SARA 313 - Threshold Values %
Sodium nitrite	7632-00-0	3-7	1.0
Phenolphthalein	77-09-8	0.1-1.0	0.1
Sodium nitrate	7631-99-4	<0.1	1.0

SARA 311/312 Hazard Categories

Should this product meet EPCRA 311/312 Tier reporting criteria at 40 CFR 370, refer to Section 2 of this SDS for appropriate classifications

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs
Sodium nitrite	100 lb	-
Sodium hydroxide	1000 lb	-

16. OTHER INFORMATION

Prepared By	Kim Franklin
Supercedes Date:	05/23/2018
Issuing Date:	09/07/2023
Revision Note	No information available
Glossary	No information available
List of References.	No information available

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