Safety Data Sheet: CHEMSEARCH 777

Supercedes Date 09/06/2011 **Issuing Date** 04/10/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CHEMSEARCH 777
Recommended use Water treatment chemical
Information on Manufacturer
CHEMSEARCH DIV. OF NCH CORP.
BOX 152170
IRVING, TX 75015

Product Code 0182
Chemical nature Aqueous solution of alkali salts
Emergency Telephone Number
CHEMTREC® 800-424-9300
Telephone inquiry
972-579-2477

2. HAZARD IDENTIFICATION

Color Dark violet **Physical State** Liquid **Odor** Odorless

GHS
Classification

Physical Hazards

Substances/mixtures corrosive to metal	Category 1

Health Hazard

Acute Oral Toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 1
Respiratory Sensitization	Category 1
Skin Sensitization	Category 1
Reproductive Toxicity	Category 2
Carcinogenicity	Category 2
Specific target organ systemic toxicity (repeated exposure)	Category 2

Other hazards
None

Labeling
Signal Word
DANGER

Hazard Statements
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H302 - Harmful if swallowed
H373 - May cause damage to organs through prolonged or repeated exposure
H361 - Suspected of damaging fertility or the unborn child
H351 - Suspected of causing cancer
H290 - May be corrosive to metals

Precautionary Statements
P202 - Do not handle until all safety precautions have been read and understood
P280 - Wear protective gloves, protective clothing, eye protection and face protection.
P264 - Wash face, hands and any exposed skin thoroughly after handling.
P260 - Do not breathe mist
P281 - Use personal protective equipment as required
P270 - Do not eat, drink or smoke when using this product
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P363 - Wash contaminated clothing before reuse
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 - Immediately call a physician
P304 + P340 - IF INHALED: Remove person to fresh air and keep at rest in a position comfortable for breathing.
P342 + P311 - If experiencing respiratory symptoms, call a physician
P301+ P330 + P331 - IF SWALLOWED: Rinse mouth. DO NOT induce vomiting. Call a physician if unwell.
P406 - Store in a corrosion-resistant container.
P390 - Absorb spillage to prevent damage
P501 - Dispose of contents and container in accordance with applicable regulations.

5 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Sodium nitrite	7632-00-0	3-7
Sodium metaborate, anhydrous	7775-19-1	3-7
Sodium sulfite	7757-83-7	0.1-1
Sodium hydroxide	1310-73-2	0.1-1
Phenolphthalein	77-09-8	0.1-1

4. FIRST AID MEASURES

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

Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention immediately.

Skin Contact Remove immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately.

Inhalation Move to fresh air. In case of shortness of breath, give oxygen. If breathing has stopped, apply artificial respiration. Get medical attention immediately.

Ingestion Drink 1 or 2 glasses of water. Do NOT induce vomiting. Get medical attention immediately. Never give anything by mouth to an unconscious person.

Notes to physician The product causes burns of eyes, skin and mucous membranes. Control of circulatory system, shock therapy if needed. Since reversion of methemoglobin to hemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need to be treated only by supportive measures. May cause sensitization of susceptible persons.

5. FIRE-FIGHTING MEASURES

Flash Point Does not flash **Method** Not applicable

Flammability Limits in Air % Hydrogen, by reaction with metals. **Upper** 75 **Lower** 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, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA	**Health** 3	**Flammability** 1	**Instability** 0
HMIS	**Health** 3	**Flammability** 1	**Instability** 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 container tightly closed in a dry and well-ventilated place. Freezing will affect the physical condition but will not damage the material. Thaw and mix before using.

Storage Temperature	**Minimum**	35 °F / 2 °C		**Maximum**	120 °F / 49 °C
Storage Conditions	**Indoor**	X	**Outdoor**	**Heated**	**Refrigerated**

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
Sodium nitrite	No data available	No data available	No data available
Sodium metaborate, anhydrous	TWA: 2 mg/m^3	No data available	No data available
Sodium sulfite	No data available	No data available	No data available

Sodium hydroxide	Ceiling: 2 mg/m^3	TWA: 2 mg/m^3	10 mg/m^3 Ceiling: 2 mg/m^3
Phenolphthalein	No data available	No data available	No data available

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	**Viscosity**	Non viscous
Color	Dark violet	**Odor**	Odorless
Odor Threshold	Not applicable	**Appearance**	Transparent
pH	12.4	**Specific Gravity**	1.1
Evaporation Rate	0.53 (Butyl acetate=1)	**Percent Volatile (Volume)**	94
VOC Content (%)	0	**VOC Content (g/L)**	0
Vapor Pressure	15.4 mmHg @ 70°F	**Vapor Density**	0.6 (Air = 1.0)
Solubility	Completely soluble	**n-Octanol/Water Partition**	No data available
Melting Point/Range	No data available	**Decomposition Temperature**	No data available
Boiling Point/Range	> 212 °F / 100 °C	**Flammability (solid, gas)**	No data available
Flash Point	Does not flash	**Method**	Not applicable
Autoignition Temperature	No information available.		
Flammability Limits in Air %	Hydrogen, by reaction with metals.	**Upper** 75 **Lower** 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.

Hazardous Decomposition Products Carbon oxides, Nitrogen oxides (NOx), Hydrogen chloride gas, Sulfur oxides, Hydrogen, by reaction with metals.

Possibility of Hazardous Reactions None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information

The following values are calculated based on chapter 3.1 of the GHS document (Rev. 3, 2009):

Oral LD50 1,531.12

Dermal LD50 No information available

Inhalation LC50

Gas No information available

Mist 101.85

Vapor 101.85

Principle Route of Exposure Skin contact, Eye contact, Inhalation.

Primary Routes of Entry Inhalation, Ingestion, Skin Absorption.

Acute Effects

Eyes Corrosive to the eyes and may cause severe damage including blindness.

Skin Severe irritation. May cause allergic skin reaction.

Inhalation Harmful by inhalation. Causes burns. May cause allergic respiratory reaction. Methemoglobinemia. Blood disorder may occur after prolonged inhalation.

Ingestion If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. May produce an allergic reaction. 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. The absorption of this product into the body may lead to the formation of methemoglobin that, in sufficient concentration, causes cyanosis. Liver and kidney injuries may occur. May cause skin sensitization in some individuals . May cause respiratory sensitization in some individuals . Contains a known or suspected reproductive toxin. Contains a known or suspected carcinogen.

Target Organ Effects Liver, Kidney, Spleen, Blood, Heart, Testes, Central nervous system, Immune system, Respiratory system, Eyes, Skin.

Aggravated Medical Conditions Skin disorders, Respiratory disorders, Neurological disorders, Blood disorders, Liver disorders,

Kidney disorders, Heart disease.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Sodium nitrite	= 85 mg/kg (Rat)	no data available	= 5.5 mg/L (Rat) 4 h	no data available	no data available
Sodium metaborate, anhydrous	no data available	no data available	no data available	no data available	no data available
Sodium sulfite	= 820 mg/kg (Rat)	no data available	> 22 mg/L (Rat) 1 h	no data available	no data available
Sodium hydroxide	no data available	= 1350 mg/kg (Rabbit)	no data available	no data available	no data available
Phenolphthalein	no data available	no data available	no data available	no data available	no data available

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Sodium nitrite	no data available	no data available	no data available	no data available	liver, kidneys, nervous system, spleen, blood, heart
Sodium metaborate, anhydrous	no data available	no data available	no data available	X	testes
Sodium sulfite	no data available	Skin sensitization, respiratory sensitization	no data available	no data available	Respiratory system, Immune system, CNS
Sodium hydroxide	no data available	no data available	no data available	no data available	eyes, respiratory system, skin
Phenolphthalein	no data available	no data available	no data available	no data available	lungs

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Sodium nitrite	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium metaborate, anhydrous	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium sulfite	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium hydroxide	not applicable	not applicable	not applicable	not applicable	not applicable
Phenolphthalein	not applicable	Group 2B	Reasonably Anticipated	X	not applicable

12. ECOLOGICAL INFORMATION

Product Information No information available.

Component Information

Component	Toxicity to Algae	Toxicity to Fish	Microtox	Water Flea	log Pow
Sodium nitrite	no data 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 data available	no data available	-3.7
Sodium metaborate, anhydrous	no data available	no data available	no data available	no data available	N/A
Sodium sulfite	no data available	LC50 220 - 460 mg/L Leuciscus idus 96 h	EC50 = 770 mg/L 17 h	330: 24 h Psammechinus miliaris mg/L LC50	-4
Sodium hydroxide	no data available	LC50 = 45.4 mg/L Oncorhynchus mykiss 96 h	no data available	no data available	N/A
Phenolphthalein	no data available	no data available	no data available	no data available	N/A

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.
Hazard Class 8
UN-No 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

Proper shipping name	Environmentally hazardous substance, liquid, n.o.s
Hazard Class	8
UN-No	UN3266
Packing Group	II

ICAO

UN-No	UN3266
Proper Shipping Name	Corrosive liquid, basic, inorganic, n.o.s.
Hazard Class	8
Packing Group	II
Shipping Description	UN3266, Corrosive liquid, basic, inorganic,n.o.s.,(Sodium hydroxide), 8, PG II

IATA

UN-No	UN3266
Proper Shipping Name	Corrosive liquid, basic, inorganic, n.o.s.
Hazard Class	8
Packing Group	II
ERG Code	9L
Shipping Description	UN3266, Corrosive liquid, basic, inorganic,n.o.s.,(Sodium hydroxide), 8, PG II

IMDG/IMO

Proper Shipping Name	Corrosive liquid, basic, inorganic, n.o.s.
Hazard Class	8
UN-No	UN3266
Packing Group	II
EmS No.	F-A, S-F
Shipping Description	UN3266, Corrosive liquid, basic, inorganic,n.o.s.,(Sodium hydroxide), 8, PG II

15. REGULATORY INFORMATION

Inventories

TSCA	Complies
DSL	Complies

U.S. 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

Component	CAS-No	Weight %	SARA 313 - Threshold Values
Sodium nitrite	7632-00-0	3-7	1.0
Phenolphthalein	77-09-8	0.1-1	0.1

SARA 311/312 Hazardous Categorization

Acute Health Hazard	Chronic Health Hazard	Fire Hazard	Sudden Release of Pressure Hazard	Reactive Hazard
Yes	Yes	No	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Sodium nitrite	100 lb	Not applicable
Sodium metaborate, anhydrous	Not applicable	Not applicable
Sodium sulfite	Not applicable	Not applicable
Sodium hydroxide	1000 lb	Not applicable
Phenolphthalein	Not applicable	Not applicable

16. OTHER INFORMATION

Prepared By	Rachael Mohochi
Supercedes Date	09/06/2011
Issuing Date	04/10/2014
Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

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