

CUSTOMER: 275804

ORDER #: 983468

BATCH #: 123470007

STICKER #: 123470131

ZONE #:BB

BARCODE #:9611019095150216722710

PRODUCT NAME: CHEMSEARCH 999

## Material Safety Data Sheet: CHEMSEARCH 999

Supersedes Date 01/30/2012

Issuing Date 10/26/2012

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CHEMSEARCH 999  
Recommended use Water treatment chemical  
Information on Manufacturer:  
CHEMSEARCH DIV. OF NCH CORP.  
BOX 152170  
IRVING, TX 75015

Product Code 1748  
Chemical nature Aqueous solution of alkali salts  
Emergency Telephone Number  
CHEMTREC® 800-424-9300

### 2. HAZARDS IDENTIFICATION

#### Emergency Overview

#### WARNING

Oxidizing agent  
Severe skin irritation  
Causes severe eye irritation  
May be harmful if inhaled  
Harmful if swallowed

Color Colorless - Light yellow

Physical State Liquid

Odor Odorless

Potential Health Effects

Principle Route of Exposure

Skin contact, Eye contact, Inhalation.

Primary Routes of Entry

Inhalation, Ingestion.

Acute Effects

Eyes

Severe irritation. May cause irreversible eye damage.

Skin

Severe irritation.

Inhalation

Causes respiratory tract irritation. Inhalation may cause central nervous system effects. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness. Blood disorder may occur after prolonged inhalation. Methemoglobinemia.

Ingestion

Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Toxic if swallowed. Blood disorder may occur after ingestion. Components of the product create formation of methemoglobin.

Chronic Toxicity

Prolonged exposure can be harmful for certain organs, e.g. liver, kidneys, blood, nervous system and skin. Methemoglobinemia. Cyanosis. Experiments have shown reproductive toxicity effects on laboratory animals.

Target Organ Effects

Respiratory system, Skin, Blood, Spleen, Heart, Liver, Kidney, Central nervous system, Testes.

Aggravated Medical Conditions

Cardiovascular, Skin disorders, Respiratory disorders, Blood disorders, Liver disorders, Kidney disorders, Neurological disorders.

Potential Environmental Effects

See Section 12 for additional Ecological information.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Sodium nitrite	7632-00-0
Sodium metaborate tetrahydrate	10555-76-7

### 4. FIRST AID MEASURES

General advice

Avoid contact with skin, eyes and clothing. Avoid breathing vapors, mist, or gas.

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

Wash off immediately with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention immediately. Wash contaminated clothing before re-use.

Inhalation

If inhaled, remove to fresh air. Get medical attention if symptoms occur.

Ingestion

Clean mouth with water and afterwards drink plenty of water

Notes to physician

Since reversion of methemoglobin to hemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need to be treated only by supportive measures.

### 5. FIRE-FIGHTING MEASURES

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
<b>Suitable Extinguishing Media</b>			
Water spray. Carbon dioxide (CO <sub>2</sub> ). Foam. Alcohol-resistant foam. Dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.			
<b>Specific hazards arising from the chemical</b>			
Contact with metals may evolve flammable hydrogen gas. Oxidizing potential. Material can create slippery conditions.			
<b>Protective Equipment and Precautions for Firefighters</b>			
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.			
NFPA	Health 3	Flammability 0	Instability 0
HMIS	Health 3	Flammability 0	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	Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.		
Storage	Store in original container. Keep containers tightly closed in a dry, cool and well-ventilated place. Metal containers must be lined. 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
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 tetrahydrate	TWA: 2 mg/m <sup>3</sup> STEL: 6 mg/m <sup>3</sup>	No data available	No data available

Engineering Measures	Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.
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 insufficient ventilation wear suitable respiratory equipment. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General Hygiene Considerations	Remove and wash contaminated clothing before re-use.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Viscosity	Non viscous
Color	Colorless - Light yellow	Odor	Odorless
Appearance	Transparent	pH	12.4
Specific Gravity	1.21	Evaporation Rate	0.44
Percent Volatile (Volume)	84.4	VOC Content (%)	0
VOC Content (g/L)	0	Vapor Pressure	13.2 mmHg @ 70°F
Vapor Density	0.6 (Air = 1.0)	Solubility	Completely soluble
Boiling Point/Range	> 212 °F / 100 °C		

### 10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	None known

Incompatible Products

Strong oxidizing agents, Reducing agents, Avoid amines, Contact with metals liberates hydrogen gas.

Hazardous Decomposition Products

Sodium oxides, Nitrogen oxides (NOx), Hydrogen, by reaction with metals.

Possibility of Hazardous Reactions

Oxidizing properties

**11. TOXICOLOGICAL INFORMATION**

**Product Information**

No information available.

**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 tetrahydrate	no data available	no data available	no data available	no data available	no data available

**Chronic Toxicity**

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 tetrahydrate	no data available	no data available	no data available	X	Testes

**Carcinogenicity**

Component	ACGIH	IARC	NTP	OSHA	Other
Sodium nitrite	not applicable	not applicable	not applicable	not applicable	not applicable
Sodium metaborate tetrahydrate	not applicable	not applicable	not applicable	not applicable	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 = 0.19 mg/L Oncorhynchus mykiss 96 h 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 = 2.3 mg/L Pimephales promelas 96 h LC50 = 20 mg/L Pimephales promelas 96 h	no data available	no data available	no data available	-3.7
Sodium metaborate tetrahydrate	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

<400# - NOT REGULATED >399# - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (SODIUM NITRITE)

UN-No

UN3082

Packing Group

III

Reportable Quantity (RQ)

RQ @ 400lbs

Description

UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (SODIUM NITRITE), 9,III, RQ

**TDG**

Proper shipping name <400#- NOT REGULATED >399#- ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (SODIUM NITRITE)  
 Hazard Class 9  
 UN-No UN3082  
 Packing Group III  
 Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.,(SODIUM NITRITE), 9, PG III, RQ

**ICAO**

UN-No UN3082  
 Proper Shipping Name <400#- NOT REGULATED >399#- ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (SODIUM NITRITE)  
 Hazard Class 9  
 Packing Group III  
 Shipping Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.,(SODIUM NITRITE), 9, PG III, RQ

**IATA**

UN-No UN3082  
 Proper Shipping Name <400# - NOT REGULATED >399# - ENVIRONMENTALLY HAZAROUS SUBSTANCE, LIQUID, N.O.S., (SODIUM NITRITE)  
 Hazard Class 9  
 Packing Group III  
 Shipping Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.,(SODIUM NITRITE), 9, PG III, RQ

**IMDG/IMO**

Proper Shipping Name <400# - NOT REGULATED >399# - ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (SODIUM NITRITE)  
 Hazard Class 9  
 UN-No UN3082  
 Packing Group III  
 Shipping Description UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.,(SODIUM NITRITE), 9, PG III, RQ

**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	25	1.0

**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 tetrahydrate	Not applicable	Not applicable

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class**

D1B Toxic materials, C Oxidizing materials.



#### 16. OTHER INFORMATION

Supersedes Date	01/30/2012
Issuing Date	10/26/2012
Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

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