

Material Safety Data Sheet: CHEM-AQUA 585

Supersedes Date 08/04/2011

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1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CHEM-AQUA 585
Recommended use Corrosion inhibitor
Information on Manufacturer
CHEM-AQUA
253 ORENDA ROAD
BRAMPTON ONT L6T 1E6

Product Code 0748
Chemical nature Aqueous solution
Emergency Telephone Number
CHEMTREC® 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER
Corrosive
Causes skin and eye burns
May cause delayed lung injury and burns
Harmful or fatal if swallowed

Color Light yellow

Physical State Liquid

Odor Sweet

Potential Health Effects

Principle Route of Exposure

Skin contact, Eye contact, Inhalation.

Primary Routes of Entry

Ingestion, Inhalation.

Acute Effects

Eyes

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

Skin

Causes skin burns.

Inhalation

Harmful by inhalation. Causes burns. Blood disorder may occur after prolonged inhalation. Methemoglobinemia. Lowered blood pressure.

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. Components of the product create formation of methemoglobin.

Chronic Toxicity

Inhaled corrosive substances can lead to a toxic edema of the lungs.

Target Organ Effects

Respiratory system, Blood, Liver, Heart, Spleen, Kidney, Skin.

Aggravated Medical Conditions

Respiratory disorders, Neurological disorders, Skin disorders, Kidney disorders, Liver disorders, Blood disorders, Heart disease.

Potential Environmental Effects

See Section 12 for additional Ecological information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Sodium nitrite	7632-00-0
Sodium hydroxide	1310-73-2
Polycarboxylate, sodium salt	25085-41-0

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. Rinse mouth.

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.

5. FIRE-FIGHTING MEASURES

Flash Point > 201 °F / > 94 °C

Method

Seta closed cup

Autoignition Temperature No information available.

Flammability Limits in Air % Hydrogen, by reaction with metals.

Upper 75

Lower 4

Suitable Extinguishing Media

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

Unsuitable Extinguishing Media

None known.

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 1

HMIS Health 3

Flammability 1

Instability 1

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

Use personal protective equipment. 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

Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin or on clothing. Do not breathe mist.

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** 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 hydroxide	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	Viscosity	Non viscous
Color	Light yellow	Odor	Sweet
Appearance	Transparent	pH	13.5
Specific Gravity	1.15	Evaporation Rate	0.48 (BuAc = 1)
Percent Volatile (Volume)	89	VOC Content (%)	0.9
VOC Content (g/L)	10	Vapor Pressure	14.2 mmHg @ 68°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, Strong acids, Reducing agents, Ammonium salts, Amines, Metals.

Hazardous Decomposition Products
Possibility of Hazardous ReactionsCarbon oxides, Nitrogen oxides (NO_x), Hydrogen, by reaction with metals.
Oxidizing potential**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 hydroxide	no data available	= 1350 mg/kg (Rabbit)	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 hydroxide	no data available	no data available	no data available	no data available	eyes, respiratory system, skin

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	ACGIH	IARC	NTP	OSHA	Other
Sodium nitrite	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 0.092 - 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 hydroxide	no data available	LC50 = 45.4 mg/L Oncorhynchus mykiss 96 h	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	Caustic alkali liquids, n.o.s.
Hazard Class	8
UN-No	UN1719
Packing Group	III
Description	UN1719,Caustic alkali liquids, n.o.s.(Sodium Hydroxide),8,PG III

TDG

Proper shipping name	Caustic alkali liquid, n.o.s.
Hazard Class	8

UN-No UN1719
 Packing Group III
 Description UN1719,Caustic alkali liquid, n.o.s.,(Sodium Hydroxide),8,PG III

ICAO

UN-No UN1719
 Proper Shipping Name Caustic alkali liquid, n.o.s.*
 Hazard Class 8
 Packing Group III
 Shipping Description UN1719,Caustic alkali liquid, n.o.s.,(Sodium Hydroxide),8,PG III

IATA

UN-No UN1719
 Proper Shipping Name Caustic alkali liquid, n.o.s.*
 Hazard Class 8
 Packing Group III
 ERG Code 8L
 Shipping Description UN1719,Caustic alkali liquid, n.o.s.,(Sodium Hydroxide),8,PG III

IMDG/IMO

Proper Shipping Name Caustic alkali liquid, n.o.s.
 Hazard Class 8
 UN-No UN1719
 Packing Group III
 EmS No. F-A, S-B
 Shipping Description UN1719, Caustic alkali liquid, n.o.s.,(Sodium Hydroxide),8,PG III

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	10-30	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	Yes

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
Sodium nitrite	100 lb	Not applicable
Sodium hydroxide	1000 lb	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

E Corrosive material D1B Toxic materials



16. OTHER INFORMATION

Prepared By Adrienne McKee
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 Reason for Revision No information available.
 Glossary No information available.
 List of References. No information available.

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