

Material Safety Data Sheet: CHEM-AQUA 655T

Supersedes Date 04/11/2002

Issuing Date 05/16/2013

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CHEM-AQUA 655T
Recommended use Water treatment chemical
Information on Manufacturer
CHEMSEARCH DIV. OF NCH CORP.
BOX 152170
IRVING, TX 75015

Product Code 491C
Chemical nature Acidic Aqueous solution
Emergency Telephone Number
CHEMTREC® 800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview
WARNING
Severe skin irritation
Causes severe eye irritation
Causes respiratory tract irritation
Harmful if swallowed

Color Colorless	Physical State Liquid	Odor Odorless
Potential Health Effects		
Principle Route of Exposure	Skin contact, Eye contact.	
Primary Routes of Entry	Ingestion	
Acute Effects		
Eyes	Severe irritation.	
Skin	Severe irritation.	
Inhalation	Causes respiratory tract irritation.	
Ingestion	Irritating to mouth, throat, and stomach. Blood disorder may occur after ingestion. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Irregular cardiac activity. Kidney injury may occur.	
Chronic Toxicity	Central nervous system, Kidney, Heart, Eyes, Skin, Respiratory system.	
Target Organ Effects	Skin disorders, Neurological disorders, Respiratory disorders, Kidney disorders.	
Aggravated Medical Conditions	See Section 12 for additional Ecological information.	
Potential Environmental Effects		

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No
Monosodium phosphate, anhydrous	7558-80-7
Phosphoric acid	7664-38-2

4. FIRST AID MEASURES

General advice	Avoid contact with skin, eyes and clothing. Avoid breathing vapors or mists.
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	If inhaled, remove to fresh air. Get medical attention if symptoms occur.
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	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flash Point	> 201 °F / > 94 °C	Method	Seta closed cup
Autoignition Temperature	No information available.		
Flammability Limits in Air % Hydrogen.		Upper 75	Lower 4
Suitable Extinguishing Media	Water spray. Carbon dioxide (CO2). Foam. Dry chemical.		
Specific hazards arising from the chemical	Contact with metals liberates flammable hydrogen gas. Material can create slippery conditions.		
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 2	Flammability 1	Instability 0

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	Neutralize with lime milk or soda and flush with plenty of water.

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	45 °F / 7 °C	Maximum	110 °F / 43 °C
Storage Conditions	Indoor	X	Outdoor	
			Heated	
			Refrigerated	

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Exposure Guidelines**

Component	ACGIH TLV	OSHA PEL	NIOSH
Monosodium phosphate, anhydrous	No data available	5 mg/m ³ PNOR (as solid)	No data available
Phosphoric acid	TWA: 1 mg/m ³ STEL: 3 mg/m ³	TWA: 1 mg/m ³	IDLH: 1000 mg/m ³ STEL 3 mg/m ³ TWA: 1 mg/m ³

Engineering Measures	Ensure adequate ventilation, especially in confined areas.
Personal Protective Equipment	
Eye/Face Protection	Tightly fitting safety goggles.
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	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	Slight Viscous
Color	Colorless	Odor	Odorless
Appearance	Transparent	pH	2.5
Specific Gravity	1.375	Evaporation Rate	0.34 (Butyl acetate=1)
Percent Volatile (Volume)	57	VOC Content (%)	0
VOC Content (g/L)	0	Vapor Pressure	11.4 mmHg @ 70°F
Vapor Density	0.6 (Air = 1.0)	Solubility	Completely soluble
Boiling Point/Range	217 °F / 103 °C		

10. STABILITY AND REACTIVITY

Chemical Stability	Stable. Hazardous polymerization does not occur.
Conditions to Avoid	Keep away from open flames, hot surfaces, and sources of ignition
Incompatible Products	Strong oxidizing agents, Acids, Contact with metals liberates hydrogen gas, Bases.
Hazardous Decomposition Products	Carbon oxides, Oxides of phosphorus, Hydrogen, by reaction with metals.
Possibility of Hazardous Reactions	None under normal processing

11. TOXICOLOGICAL INFORMATION

Product Information No information available.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
Monosodium phosphate, anhydrous	= 8290 mg/kg (Rat)	> 7940 mg/kg (Rabbit)	no data available	no data available	no data available
Phosphoric acid	= 1530 mg/kg (Rat)	= 2730 mg/kg (Rabbit)	> 850 mg/m ³ (Rat) 1 h	no data available	no data available

Chronic Toxicity

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
Monosodium phosphate, anhydrous	no data available	no data available	no data available	no data available	CNS, heart, kidney
Phosphoric acid	no data available	no data available	no data available	no data available	eyes, respiratory system, skin

Carcinogenicity

Component	ACGIH	IARC	NTP	OSHA	Other
Monosodium phosphate, anhydrous	not applicable	not applicable	not applicable	not applicable	not applicable
Phosphoric acid	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
Monosodium phosphate, anhydrous	no data available	no data available	no data available	no data available	N/A
Phosphoric acid	no data available	LC50 3 - 3.5 mg/L. <i>Gambusia affinis</i> 96 h	no data available	EC50= 4.6 mg/L 12 h	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	Not regulated
TDG	Not regulated
ICAO	Not regulated
IATA	Not regulated
IMDG/IMO	Not regulated

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 does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

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
Monosodium phosphate, anhydrous	Not applicable	Not applicable

Phosphoric acid

5000 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

D2B Toxic materials



16. OTHER INFORMATION

Prepared By	Mike McDowell
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Reason for Revision	No information available.
Glossary	No information available.
List of References.	No information available.

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