

Safety Data Sheet: CHEM-AQUA 18630, CA

Supersedes Date Not applicable

Issuing Date 04/25/2014

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name CHEM-AQUA 18630, CA
Recommended use Water treatment chemical
Information on Manufacturer
CHEM-AQUA, INC
BOX 152170
IRVING, TEXAS 75015

Product Code C142
Chemical nature Amines Aqueous solution
Emergency Telephone Number
CHEMTREC® 800-424-9300

2. HAZARD IDENTIFICATION

Color Colorless - Yellow - Amber

Physical State Liquid

Odor Ammoniacal

GHS

Classification

Physical Hazards

Flammable liquids Category 3
Substances/mixtures corrosive to metal Category 1

Health Hazard

Aspiration Toxicity Category 1
Acute Oral Toxicity Category 3
Acute Dermal Toxicity Category 4
Skin Corrosion/Irritation Category 1
Serious Eye Damage/Eye Irritation Category 1
Respiratory Sensitization Category 1
Skin Sensitization Category 1
Reproductive Toxicity Category 2
Specific target organ systemic toxicity (single exposure) Category 3
Specific target organ systemic toxicity (repeated exposure) Category 2

Other hazards

None

Labeling

Signal Word

DANGER



Hazard Statements

H226 - Flammable liquid and vapor
H314 - Causes severe skin burns and eye damage
H312 - Harmful in contact with skin
H317 - May cause an allergic skin reaction
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H336 - May cause drowsiness or dizziness
H304 - May be fatal if swallowed and enters airways
H301 - Toxic if swallowed
H373 - May cause damage to organs through prolonged or repeated exposure
H361 - Suspected of damaging fertility or the unborn child
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.
P210 - Keep away from heat, sparks, open flames or hot surfaces.
P260 - Do not breathe vapor or mist.
P271 - Use in a well-ventilated area.
P270 - Do not eat, drink or smoke when using this product
P272 - Contaminated work clothing should not be allowed out of the workplace
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P333 + P313 - If skin irritation or rash occurs, get medical attention
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.
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
P406 - Store in a corrosion-resistant container.
P390 - Absorb spillage to prevent damage

P501 - Dispose of contents and container in accordance with applicable regulations.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
2-Diethylaminoethanol	100-37-8	15-40
Cyclohexylamine	108-91-8	7-13

4. FIRST AID MEASURES

General advice	Do not get in eyes, on skin or on clothing. Do not breathe vapors or mist.
Eye Contact	Rinse immediately with plenty of water, also under the eyelids, 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 if irritation develops and persists. Wash contaminated clothing before re-use.
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. May cause sensitization of susceptible persons. Aspiration hazard if swallowed - can enter lungs and cause damage. May be fatal if swallowed and enters airways.

5. FIRE-FIGHTING MEASURES

Flash Point	145 °F / 63 °C	Method	Pensky Marten Closed Tester
Flammability Limits in Air	% Hydrogen, by reaction with metals.	Upper	75
Suitable Extinguishing Media	Carbon dioxide (CO ₂). Dry chemical. Water spray. Foam. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.	Lower	4
Specific hazards arising from the chemical			
Solvent vapors are heavier than air and may spread along floors. Vapors may ignite and explode. Contact with metals may evolve 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 3	Flammability 2	Instability 0
HMIS	Health 3	Flammability 2	Instability 0

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment. Ensure adequate ventilation. Take precautionary measures against static discharges. Remove all sources of ignition. 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	Use clean non-sparking tools to collect absorbed material. Pick up and transfer to properly labeled containers.
Neutralizing Agent	Acetic acid, diluted.

7. HANDLING AND STORAGE

Handling	Keep away from open flames, hot surfaces and sources of ignition. Do not get in eyes, on skin or on clothing. Do not breathe vapors or spray mist.
Storage	Keep away from open flames, hot surfaces and sources of ignition. 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
Storage Conditions	Indoor X Outdoor Maximum Heated 115 °F / 46 °C Refrigerated

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Component	ACGIH TLV	OSHA PEL	NIOSH
2-Diethylaminoethanol	TWA: 2 ppm Skin	TWA: 10 ppm TWA: 50 mg/m ³ Skin	100 ppm TWA: 10 ppm TWA: 50 mg/m ³
Cyclohexylamine	TWA: 10 ppm	No data available	TWA: 10 ppm TWA: 40 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid	Viscosity	Non viscous
Color	Colorless - Yellow - Amber	Odor	Ammoniacal
Odor Threshold	Not applicable	Appearance	Transparent
pH	12.47	Specific Gravity	0.98
Evaporation Rate	0.49 (Butyl acetate=1)	Percent Volatile (Volume)	100
VOC Content (%)	40	VOC Content (g/L)	390
Vapor Pressure	16.57 mmHg @ 70°F	Vapor Density	0.7 (Air = 1.0)
Solubility	Soluble	n-Octanol/Water Partition	No data available
Melting Point/Range	No data available	Decomposition Temperature	No data available
Boiling Point/Range	Not applicable °F / 99 °C	Flammability (solid, gas)	No data available
Flash Point	145 °F / 63 °C	Method	Pensky Marten Closed Tester
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	Keep away from open flames, hot surfaces, and sources of ignition
Incompatible Products	Strong oxidizing agents, Acids, Highly halogenated compounds, Copper.
Hazardous Decomposition Products	Carbon oxides, Nitrogen oxides (NOx), Ammonia, Amines, Nitriles, Nitrosamines, 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	No information available
Dermal LD50	No information available
Inhalation LC50	
Gas	No information available
Mist	No information available
Vapor	No information available

Principle Route of Exposure

Skin contact, Eye contact, Inhalation.

Primary Routes of Entry

Inhalation, Skin Absorption, Ingestion.

Acute Effects**Eyes**

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

Skin

Causes skin burns. May be absorbed through the skin in harmful amounts. May cause allergic skin reaction.

Inhalation

Causes burns. Harmful by inhalation. Inhalation may cause central nervous system effects. May cause allergic respiratory reaction. May cause central nervous system depression. Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Ingestion

If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the esophagus and the stomach. Toxic if swallowed. Aspiration hazard if swallowed - can enter lungs and cause damage. May be fatal if swallowed and enters airways.

Chronic Toxicity Inhaled corrosive substances can lead to a toxic edema of the lungs. May cause sensitization by skin contact. May cause respiratory sensitization in some individuals. Liver and kidney injuries may occur. Contains a known or suspected reproductive toxin.

Target Organ Effects Respiratory system, Skin, Kidney, Central nervous system, Reproductive System, Liver, Blood, Bone, Immune system, Eyes, Heart.

Aggravated Medical Conditions Respiratory disorders, Skin disorders, Liver disorders, Neurological disorders, Kidney disorders.

Component Information

Acute Toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation	Draize Test	Other
2-Diethylaminoethanol	= 1300 mg/kg (Rat)	= 1260 µL/kg (Rabbit)	no data available	no data available	no data available
Cyclohexylamine	= 11 mg/kg (Rat)	= 320 mg/kg (Rabbit)	no data available	no data available	no data available

Component	Mutagenicity	Sensitization	Developmental Toxicity	Reproductive Toxicity	Target Organ Effects
2-Diethylaminoethanol	no data available	skin sensitization	no data available	no data available	eyes, respiratory system, skin, immune system
Cyclohexylamine	no data available	skin sensitization, respiratory sensitization	no data available	Yes	eyes, CNS, respiratory system, skin, immune system, blood, heart, liver, kidney

Carcinogenicity There are no known carcinogenic chemicals in this product.

Component	ACGIH	IARC	NTP	OSHA	Other
2-Diethylaminoethanol	not applicable	not applicable	not applicable	not applicable	not applicable
Cyclohexylamine	not applicable	Group 3	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
2-Diethylaminoethanol	EC50 = 30 mg/L Desmodesmus subspicatus 72 h	LC50 100 - 220 mg/L <i>Leuciscus idus</i> 96 h LC50 1660 - 1920 mg/L <i>Pimephales promelas</i> 96 h	no data available	83.6: 48 h <i>Daphnia magna</i> Straus mg/L EC50	0.21
Cyclohexylamine	EC50 = 20 mg/L <i>Pseudokirchneriella subcapitata</i> 96 h	LC50 44 - 90 mg/L <i>Oncorhynchus mykiss</i> 96 h LC50 = 470 mg/L <i>Brachydanio rerio</i> 96 h	EC50 = 120 mg/L 30 min	49: 24 h <i>Daphnia magna</i> mg/L EC50	1.2

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 liquids, flammable, n.o.s. (Cyclohexylamine, 2-Diethylaminoethanol)
Hazard Class 8
Subsidiary Hazard Class 3
UN-No UN2920
Packing Group II
Description UN2920, Corrosive liquids, flammable, n.o.s. (Cyclohexylamine, 2-Diethylaminoethanol), 8, (3), PG II

TDG

Hazard Class 8
Subsidiary Hazard Class (3)
UN-No UN2920
Packing Group II

ICAO

UN-No UN2920

Proper Shipping Name Corrosive liquid, flammable, n.o.s. (Cyclohexylamine, 2-Diethylaminoethanol)
Hazard Class 8
Subsidiary Hazard Class 3
Packing Group II
Shipping Description UN2920, Corrosive liquid, flammable, n.o.s.(Cyclohexylamine, 2-Diethylaminoethanol),8(3),PG II

IATA

UN-No UN2920
Proper Shipping Name Corrosive liquid, flammable, n.o.s. (Cyclohexylamine, 2-Diethylaminoethanol)
Hazard Class 8
Subsidiary Hazard Class 3
Packing Group II
ERG Code 8F
Shipping Description UN2920, Corrosive liquid, flammable, n.o.s.(Cyclohexylamine, 2-Diethylaminoethanol),8(3),PG II

IMDG/IMO

Proper Shipping Name Corrosive liquid, flammable, n.o.s. (Cyclohexylamine, 2-Diethylaminoethanol)
Hazard Class 8
Subsidiary Hazard Class 3
UN-No UN2920
Packing Group II
EmS No. F-E, S-C
Shipping Description UN2920, Corrosive liquid, flammable, n.o.s.(Cyclohexylamine, 2-Diethylaminoethanol),8(3),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 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	Yes	No	No

CERCLA

Component	Hazardous Substances RQs	CERCLA EHS RQs
2-Diethylaminoethanol	Not applicable	Not applicable
Cyclohexylamine	Not applicable	10000 lb TPQ 10000 lb

U.S. State Regulations

California Proposition 65 This product does not contain any Proposition 65 chemicals.

16. OTHER INFORMATION

Prepared By Adrienne McKee
Supersedes Date Not applicable
Issuing Date 04/25/2014
Reason for Revision No information available.
Glossary No information available.
List of References. No information available.

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