Printing date 07/20/2020 Reviewed on 07/20/2020

1 Identification

· Product identifier

· Trade name: Chloramine-T Hydrate 98%

· Article number: C3301

• CAS Number: 149358-73-6 • EC number: 204-854-7

· Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

Aqua Solutions, Inc. 6913 Highway 225 DEER PARK, TX 77536 USA 800-256-2586

· Information department:

Technical Coordinator

Sherman Nelson sherman@aquasolutions.org

Technical Coordinator

Sherman Nelson sherman@aquasolutions.org

Emergency telephone number: Chemtrec: 800-424-9300 Canutec: 613-996-6666



2 Hazard(s) identification

· Classification of the substance or mixture



Skin Corr. 1A H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

- · Label elements
- · GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



GHS05

- · Signal word Danger
- · Hazard statements

Causes severe skin burns and eye damage.

· Precautionary statements

Do not breathe dusts or mists.

Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

(Contd. on page 2)

Printing date 07/20/2020 Reviewed on 07/20/2020

Trade name: Chloramine-T Hydrate 98%

(Contd. of page 1)

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

- · Classification system:
- · NFPA ratings (scale 0 4)



Health = 3 Fire = 0Reactivity = 0

· HMIS-ratings (scale 0 - 4)



Health = 3 Fire = 0Reactivity = 1

- · Other hazards
- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.

3 Composition/information on ingredients

- · Chemical characterization: Substances
- · CAS No. Description

149358-73-6 Chloramine-T Hydrate 98%

- · Identification number(s)
- · EC number: 204-854-7

4 First-aid measures

- · Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- · After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- · After skin contact: Immediately wash with water and soap and rinse thoroughly.
- · After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- · After swallowing: Drink copious amounts of water and provide fresh air. Immediately call a doctor.
- · Information for doctor:
- · Most important symptoms and effects, both acute and delayed No further relevant information available.
- · Indication of any immediate medical attention and special treatment needed No further relevant information available.

5 Fire-fighting measures

- · Extinguishing media
- · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
- · Special hazards arising from the substance or mixture No further relevant information available.

(Contd. on page 3)

Printing date 07/20/2020 Reviewed on 07/20/2020

Trade name: Chloramine-T Hydrate 98%

(Contd. of page 2)

· Advice for firefighters

· Protective equipment: No special measures required.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · Methods and material for containment and cleaning up:

Use neutralizing agent.

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

- · Protective Action Criteria for Chemicals
- · PAC-1: Substance is not listed.
- · PAC-2: Substance is not listed.
- · PAC-3: Substance is not listed.

7 Handling and storage

- · Handling:
- · Precautions for safe handling Thorough dedusting.
- · Information about protection against explosions and fires: No special measures required.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: No special requirements.
- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions: Keep receptacle tightly sealed.
- · Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- · Additional information about design of technical systems: No further data; see item 7.
- · Control parameters
- · Components with limit values that require monitoring at the workplace: Not required.
- · Additional information: The lists that were valid during the creation were used as basis.
- · Exposure controls
- · Personal protective equipment:
- · General protective and hygienic measures:

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

Avoid contact with the eyes and skin.

· Breathing equipment: Not required.

(Contd. on page 4)

(Contd. of page 3)

Safety Data Sheet acc. to OSHA HCS

Printing date 07/20/2020 Reviewed on 07/20/2020

Trade name: Chloramine-T Hydrate 98%

· Protection of hands:



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:

· Vapor pressure:

· Relative density

· Density at 20 °C (68 °F):



Tightly sealed goggles

· Body protection: Protective work clothing

9 Physical and chemical properties

· Information on basic physical and o · General Information	chemical properties
· Appearance:	
Form:	Solid
Color:	Whitish
· Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value:	Not applicable.
· Change in condition Melting point/Melting range: Boiling point/Boiling range:	167°C (332.6°F) Undetermined.
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Product is not flammable.
· Decomposition temperature:	Not determined.
· Auto igniting:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits: Lower: Upper:	Not determined. Not determined.
CPPCI.	1101 determined.

Not applicable.

1 g/cm³ (8.345 lbs/gal) Not determined.

(Contd. on page 5)

Printing date 07/20/2020 Reviewed on 07/20/2020

Trade name: Chloramine-T Hydrate 98%

(Contd. of page 4)

Vapor densityEvaporation rateNot applicable.Not applicable.

· Solubility in / Miscibility with

Water: Not determined.

· Partition coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not applicable.
Kinematic: Not applicable.

• *Other information* No further relevant information available.

10 Stability and reactivity

- · Reactivity No further relevant information available.
- · Chemical stability
- · Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · Possibility of hazardous reactions No dangerous reactions known.
- · Conditions to avoid No further relevant information available.
- · Incompatible materials: No further relevant information available.
- · Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- · Information on toxicological effects
- · Acute toxicity:
- · Primary irritant effect:
- · on the skin: Strong caustic effect on skin and mucous membranes.
- · on the eye:

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

- · Sensitization: No sensitizing effects known.
- · Additional toxicological information:

Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

- · Carcinogenic categories
- · IARC (International Agency for Research on Cancer) Substance is not listed.
- · NTP (National Toxicology Program) Substance is not listed.
- · OSHA-Ca (Occupational Safety & Health Administration) Substance is not listed.

12 Ecological information

- · Toxicity
- · Aquatic toxicity: No further relevant information available.
- · Persistence and degradability No further relevant information available.
- · Behavior in environmental systems:
- · Bioaccumulative potential No further relevant information available.
- · Mobility in soil No further relevant information available.

(Contd. on page 6)

Printing date 07/20/2020 Reviewed on 07/20/2020

Trade name: Chloramine-T Hydrate 98%

(Contd. of page 5)

- · Additional ecological information:
- · General notes:

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- · Results of PBT and vPvB assessment
- · **PBT**: Not applicable.
- · vPvB: Not applicable.
- · Other adverse effects No further relevant information available.

13 Disposal considerations

- · Waste treatment methods
- · Recommendation:

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- · Uncleaned packagings:
- · Recommendation: Disposal must be made according to official regulations.

UN-Number	
DOT, IMDG, IATA	UN3263
UN proper shipping name	
DOT	Corrosive solid, basic, organic, n.o.s. (Chloramine-T Hydra
IMDC IATA	98%) CORROSIVE SOLID, BASIC, ORGANIC, N.O.S. (Chloramine
IMDG, IATA	Hydrate 98%)
Transport hazard class(es)	
DOT	
CORROSIVE	
Class	8 Corrosive substances
Label	8
IMDG, IATA	
<u> </u>	
Class	8 Corrosive substances
Label	8
Packing group	
DOT	III
Environmental hazards:	
Marine pollutant:	No

Printing date 07/20/2020 Reviewed on 07/20/2020

Trade name: Chloramine-T Hydrate 98%

	(Contd. of page 6
· Special precautions for user	Warning: Corrosive substances
Hazard identification number (Kemler code)	: 8
· EMS Number:	F- A , S - B
· Segregation groups	Alkalis
· Segregation Code	SG35 Stow "separated from" SGG1-acids
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
$\cdot DOT$	
· Remarks:	Corrosive solid, basic, organic, n.o.s
· UN "Model Regulation":	UN 3263 CORROSIVE SOLID, BASIC, ORGANIC, N.O.S (CHLORAMINE-T HYDRATE 98%), 8, III

15 Regulatory information

- · Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Sara
- · Section 355 (extremely hazardous substances): Substance is not listed.
- · Section 313 (Specific toxic chemical listings): Substance is not listed.
- · Hazardous Air Pollutants Substance is not listed.
- · Proposition 65
- · Chemicals known to cause cancer: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for females: Substance is not listed.
- · Chemicals known to cause reproductive toxicity for males: Substance is not listed.
- · Chemicals known to cause developmental toxicity: Substance is not listed.
- · Carcinogenic categories
- · EPA (Environmental Protection Agency) Substance is not listed.
- · TLV (Threshold Limit Value established by ACGIH) Substance is not listed.
- · NIOSH-Ca (National Institute for Occupational Safety and Health) Substance is not listed.
- · GHS label elements The substance is classified and labeled according to the Globally Harmonized System (GHS).
- · Hazard pictograms



GHS05

- · Signal word Danger
- · Hazard statements

Causes severe skin burns and eye damage.

· Precautionary statements

Do not breathe dusts or mists.

Wash thoroughly after handling.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 8)

Printing date 07/20/2020 Reviewed on 07/20/2020

Trade name: Chloramine-T Hydrate 98%

(Contd. of page 7)

Immediately call a poison center/doctor.

Specific treatment (see on this label).

Wash contaminated clothing before reuse.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- · Department issuing SDS: Environment protection department.
- · Contact:
- · Date of preparation / last revision

Revision 1.1, 04-01-2020: Revised Hazard information per Fann. STN Creation date for SDS 07-31-2015. STN

07/20/2020 / -

· Abbreviations and acronyms:

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists EINECS: European Inventory of Existing Commercial Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Skin Corr. 1A: Skin corrosion/irritation – Category 1A Eye Dam. 1: Serious eye damage/eye irritation – Category 1

US