Printing date 07/22/2024

Reviewed on 07/22/2024

1 Identification

- · Product identifier
- Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)
- Article number: DC558
- · 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 shermann@aquasolutions.org · Emergency telephone number: Chemtrec: 800-424-9300
- Canutec: 613-996-6666

2 Hazard(s) identification

· Classification of the substance or mixture



GHS02 Flame

Flammable Liquids 2

GHS06 Skull and crossbones

Acute Toxicity - Oral 3 Acute Toxicity - Dermal 3 Acute Toxicity - Inhalation 3

GHS08 Health hazard

Toxic to Reproduction 2 Specific Target Organ Toxicity - Single Exposure 1

Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to organs through prolonged or

Aspiration Hazard 1

GHS05 Corrosion

Skin Corrosion 1A Eye Damage 1

H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.

H304 May be fatal if swallowed and enters airways.

H361 Suspected of damaging fertility or the unborn child.

H370 Causes damage to the central nervous system and

H225 Highly flammable liquid and vapor.

H301 Toxic if swallowed.

H331 Toxic if inhaled.

H311 Toxic in contact with skin.

the visual organs.

repeated exposure.

(Contd. on page 2)

US

Printing date 07/22/2024

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

(Contd. of page 1) GHS07 Specific Target Organ Toxicity - Single Exposure 3 H336 May cause drowsiness or dizziness. · Label elements • GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS). · Hazard pictograms GHS05 GHS06 GHS08 GHS02 GHS07 · Signal word Danger · Hazard-determining components of labeling: Methanol Toluene **Pyrrolidine** · Hazard statements Highly flammable liquid and vapor. Toxic if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. Suspected of damaging fertility or the unborn child. Causes damage to the central nervous system and the visual organs. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways. · Precautionary statements Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ground/bond container and receiving equipment. *Use explosion-proof electrical/ventilating/lighting/equipment.* Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dusts or mists. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. If swallowed: Immediately call a poison center/doctor. Specific treatment (see on this label). 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. IF exposed or concerned: Get medical advice/attention. Call a poison center/doctor if you feel unwell. Get medical advice/attention if you feel unwell. Take off immediately all contaminated clothing and wash it before reuse. (Contd. on page 3)

- U

Printing date 07/22/2024

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

(Contd. of page 2) In case of fire: Use CO2, powder or water spray to extinguish. Store in a well-ventilated place. Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations. · Classification system: · NFPA ratings (scale 0 - 4) Health = 3Fire = 3Reactivity = 0· HMIS-ratings (scale 0 - 4) HEALTH 3 Health = 3 3 Fire = 3FIRE **REACTIVITY** O Reactivity = 0 · Other hazards · Results of PBT and vPvB assessment

• *PBT:* Not applicable. • *vPvB:* Not applicable.

3 Composition/information on ingredients

· Chemical characterization: Mixtures

• **Description:** Mixture of the substances listed below with nonhazardous additions.

· Dangerous components:		
CAS: 67-56-1	Methanol	63.571%
CAS: 108-88-3	Toluene	29.836%
CAS: 123-75-1	Pyrrolidine	6.591%
· Table of Nonhazardous Ingredients		
	Bromophenol Blue	0.001%
CAS: 7447-41-8	Lithium Chloride	0.001%

4 First-aid measures

· Description of first aid measures

· General information:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Remove breathing apparatus only after contaminated clothing have been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

• After inhalation:

Supply fresh air or oxygen; call for doctor.

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.

(Contd. on page 4)

US

Printing date 07/22/2024

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

(Contd. of page 3)

- After swallowing:
- Do not induce vomiting; immediately call for medical help.
- 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.
- \cdot Indication of any immediate medical attention and special treatment needed
- No further relevant information available.

5 *Fire-fighting measures*

- · Extinguishing media
- · Suitable extinguishing agents:
- CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- $\cdot \textit{For safety reasons unsuitable extinguishing agents: Water with full jet}$
- Special hazards arising from the substance or mixture During heating or in case of fire poisonous gases are produced.
- · Advice for firefighters
- Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

	tions, protective equipment and emergency procedures y protective device.	
	equipment. Keep unprotected persons away.	
	precautions: Do not allow to enter sewers/ surface or ground water.	
	terial for containment and cleaning up:	
	id-binding material (sand, diatomite, acid binders, universal binders, sawdust).	
Use neutralizing		
Dispose contami	nated material as waste according to section 13.	
Ensure adequate	ventilation.	
· Reference to oth		
	information on safe handling.	
	information on personal protection equipment.	
	or disposal information.	
	ı Criteria for Chemicals	
· PAC-1:		
CAS: 67-56-1	Methanol	530 ppm
CAS: 108-88-3	Toluene	67 ppm
CAS: 123-75-1	Pyrrolidine	0.69 mg/m ²
CAS: 115-39-9	Bromophenol Blue	30 mg/m ³
CAS: 7447-41-8	Lithium Chloride	$2.3 mg/m^3$
· PAC-2:		
CAS: 67-56-1	Methanol	2,100 ppm
CAS: 108-88-3	Toluene	560 ppm
CAS: 123-75-1	Pyrrolidine	7.6 mg/m ³
CAS: 115-39-9	Bromophenol Blue	330 mg/m ³
CAS: 7447-41-8	Lithium Chloride	17 mg/m3
	1	(Contd. on page

Printing date 07/22/2024

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

		(Contd. of page 4)
· PAC-3:		
CAS: 67-56-1	Methanol	7200* ppm
CAS: 108-88-3	Toluene	3700* ppm
CAS: 123-75-1	Pyrrolidine	45 mg/m ³
	Bromophenol Blue	2,000 mg/m ³
CAS: 7447-41-8	Lithium Chloride	100 mg/m3

7 Handling and storage

· Handling:

- **Precautions for safe handling** Ensure good ventilation/exhaustion at the workplace. Open and handle receptacle with care. Prevent formation of aerosols.
- Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.
 Keep respiratory protective device available.
- · Conditions for safe storage, including any incompatibilities
- · Storage:
- Requirements to be met by storerooms and receptacles: Store in a cool location.
- · Information about storage in one common storage facility: Not required.
- Further information about storage conditions: Keep receptacle tightly sealed.
 Store in cool, dry conditions in well sealed receptacles.
 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 section 7.

- · Control parameters
- · Components with limit values that require monitoring at the workplace:

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.

At this time, the remaining constituent has no known exposure limits.

CAS	: 67-56-1 Methanol
PEL	Long-term value: 260 mg/m ³ , 200 ppm
REL	Short-term value: 325 mg/m ³ , 250 ppm Long-term value: 260 mg/m ³ , 200 ppm Skin
TLV	Short-term value: 250 ppm Long-term value: 200 ppm Skin; BEIc
CAS	: 108-88-3 Toluene
PEL	Long-term value: 200 ppm Ceiling limit value: 300; 500* ppm *10-min peak per 8-hr shift
	(Contd. on page 6)

Printing date 07/22/2024

Reviewed on 07/22/2024

Printing	date 07/22/2024 Reviewed on 07/22/202
Frade no	ame: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)
	(Contd. of page
REL	Short-term value: 560 mg/m ³ , 150 ppm
	Long-term value: 375 mg/m ³ , 100 ppm
TLV	Long-term value: 20 ppm
	BEI, OTO, A4
· Ingr	edients with biological limit values:
-	5: 67-56-1 Methanol
BEI	15 mg/L
	LD50 Intraperitoneal: urine
	Time: end of shift
	LD50: Methanol (background, nonspecific)
CAS	S: 108-88-3 Toluene
BEI	0.02 mg/L
	LD50 Intraperitoneal: blood
	Time: prior to last shift of workweek
	LD50: Toluene
	0.03 mg/L
	LD50 Intraperitoneal: urine
	Time: end of shift
	LD50: Toluene
	0.3 mg/g creatinine
	LD50 Intraperitoneal: urine
	Time: end of shift
	LD50: o-Cresol with hydrolysis (background)
	itional information: The lists that were valid during the creation were used as basis. osure controls
	sonal protective equipment:
	eral protective and hygienic measures:
-	p away from foodstuffs, beverages and feed.
	nediately remove all soiled and contaminated clothing.
	h hands before breaks and at the end of work.
	e protective clothing separately. id contact with the eyes.
	id contact with the eyes. id contact with the eyes and skin.
	athing equipment:
	ase of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure u
	iratory protective device that is independent of circulating air.
· Prot	tection of hands:
PHI	Protective gloves
Due	glove material has to be impermeable and resistant to the product/ the substance/ the preparation. to missing tests no recommendation to the glove material can be given for the product/ the preparation/ t nical mixture.
Sele	ction of the glove material on consideration of the penetration times, rates of diffusion and the degradation cerial of gloves

• *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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

(Contd. on page 7)

US

Printing date 07/22/2024

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

(Contd. of page 6)

· 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:



*

Tightly sealed goggles

· Body protection: Protective work clothing

Information on basic physical and o	chemical properties
General Information	
Appearance:	
Form:	Liquid
Color:	Blue
Odor:	Organic
Odor threshold:	Not determined.
pH-value:	Not determined.
Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	64 °C (147.2 °F)
Flash point:	3 °C (37.4 °F)
Flammability (solid, gaseous):	Highly flammable.
Auto igniting:	320 °C (608 °F)
Decomposition temperature:	Not determined.
Ignition temperature:	Product is not selfigniting.
Danger of explosion:	Product is not explosive. However, formation of explosive air/vap mixtures are possible.
Explosion limits:	
Lower:	1.2 Vol %
Upper:	44 Vol %
Vapor pressure at 20 °C (68 °F):	128 hPa (96 mm Hg)
Density at 20 °C (68 °F):	0.81926 g/cm³ (6.83672 lbs/gal)
Relative density	Not determined.
Vapor density	Not determined.
Evaporation rate	Not determined.
Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
Partition coefficient (n-octanol/wate	er): Not determined.
Viscosity:	
Dynamic:	Not determined.

Printing date 07/22/2024

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

		(Contd. of page 7
Kinematic:	Not determined.	
· Solvent content:		
Organic solvents:	100.0 %	
VOC content:	100.00 %	
	819.2 g/l / 6.84 lb/gal	
Solids content:	0.0 %	
• 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:

· LD/LC50 values that are relevant for classification:

ATE (Acute Toxicity Estimate)OralLD50154 mg/kgDermalLD50472 mg/kgInhalativeLC50/4h4.6 mg/l

· Primary irritant effect:

• on the skin: Strong caustic effect on skin and mucous membranes.

 \cdot on the eye:

Strong caustic effect.

Strong irritant with the danger of severe eye injury.

• Sensitization: No sensitizing effects known.

· Additional toxicological information:

The product shows the following dangers according to internally approved calculation methods for preparations: Toxic

Corrosive

Irritant

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)

CAS: 108-88-3 Toluene

· NTP (National Toxicology Program)

None of the ingredients is listed.

(Contd. on page 9)

3

Printing date 07/22/2024

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

(Contd. of page 8)

· OSHA-Ca (Occupational Safety & Health Administration)

None of the ingredients is 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.
- · Additional ecological information:
- · General notes:

Water hazard class 2 (Self-assessment): hazardous for water Do not allow product to reach ground water, water course or sewage system. Must not reach bodies of water or drainage ditch undiluted or unneutralized. Danger to drinking water if even small quantities leak into the ground.

- · 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	UN1993
· UN proper shipping name	
$\cdot DOT$	Flammable liquids, n.o.s. (Methanol, Pyrrolidine, Toluene)
· IMDG, IATA	FLAMMABLE LIQUID, N.O.S. (Methanol, Pyrrolidine, Toluene
· Transport hazard class(es)	
·DOT	
FLAMMABLE LIQUD	
3	
· Class	3 Flammable liquids

Printing date 07/22/2024

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

	(Contd. of page
Label	3
IMDG, IATA	
3	
Class	3 Flammable liquids
Label	3
Packing group	
DOT, IMDG, IATA	II
Environmental hazards:	
Marine pollutant:	No
Special precautions for user	Warning: Flammable liquids
Hazard identification number (Kemler co	
EMS Number:	F-E, S-E
Segregation groups	(SGG18) Alkalis
Stowage Category	В
Transport in bulk according to Annex II	
MARPOL73/78 and the IBC Code	Not applicable.
Transport/Additional information:	
DOT	
Quantity limitations	On passenger aircraft/rail: 1 L
	On cargo aircraft only: 5 L
IMDG	
Limited quantities (LQ)	1L
Excepted quantities $(\widetilde{E}Q)$	Code: E2
· ~	Maximum net quantity per inner packaging: 30 ml
	Maximum net quantity per outer packaging: 500 ml
UN "Model Regulation":	UN 1993 FLAMMABLE LIQUID, N.O.S. (METHANO)
-	PYRROLIDINE, TOLUENE), 3, II

15 Regulatory information

• Safety, health and environmental regulations/legislation specific for the substance or mixture No further relevant information available. • Sara

· Section 355 (extremely hazardous substances):	
None of the ingredients is listed.	
· Section 313 (Specific toxic chemical listings):	
CAS: 67-56-1 Methanol	
CAS: 108-88-3 Toluene	
· TSCA (Toxic Substances Control Act):	
Methanol	ACTIVE
Toluene	ACTIVE
	(Contd. on page 11)

Printing date 07/22/2024

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

Pyrrolidine		(Contd. of page 1)
Bromophenol Blue		ACTIVI
Lithium Chloria		ACTIVI
Hazardous Air	Pollutants	
CAS: 67-56-1	Methanol	
CAS: 108-88-3	Toluene	
Proposition 65		
Chemicals know	vn to cause cancer:	
None of the ing	redients is listed.	
Chemicals know	vn to cause reproductive toxicity for females:	
None of the ing	redients is listed.	
Chemicals know	vn to cause reproductive toxicity for males:	
None of the ing	redients is listed.	
Chemicals know	vn to cause developmental toxicity:	
CAS: 67-56-1	Methanol	
CAS: 108-88-3	Toluene	
Carcinogenic c	ategories	
EPA (Environn	nental Protection Agency)	
CAS: 108-88-3	Toluene	1
TLV (Threshold	l Limit Value)	
CAS: 108-88-3	Toluene	A
NIOSH-Ca (Na	tional Institute for Occupational Safety and Health)	

None of the ingredients is listed.

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



· Signal word Danger

· Hazard-determining components of labeling:

- Methanol Toluene
- **Pyrrolidine**
- · Hazard statements

Highly flammable liquid and vapor. Toxic if swallowed, in contact with skin or if inhaled. Causes severe skin burns and eye damage. Suspected of damaging fertility or the unborn child.

Causes damage to the central nervous system and the visual organs.

May cause drowsiness or dizziness.

May cause damage to organs through prolonged or repeated exposure. May be fatal if swallowed and enters airways.

(Contd. on page 12)

US

Printing date 07/22/2024

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

	(Contd. of page 11)
Precautionary statements	
Obtain special instructions before use.	
Do not handle until all safety precautions have been read and understood.	
Keep away from heat/sparks/open flames/hot surfaces No smoking.	
Ground/bond container and receiving equipment.	
Use explosion-proof electrical/ventilating/lighting/equipment.	
Use only non-sparking tools.	
Take precautionary measures against static discharge.	
Do not breathe dusts or mists.	
Wash thoroughly after handling.	
Do not eat, drink or smoke when using this product.	
Use only outdoors or in a well-ventilated area.	
Wear protective gloves/protective clothing/eye protection/face protection.	
If swallowed: Immediately call a poison center/doctor.	
Specific treatment (see on this label).	
If swallowed: Rinse mouth. Do NOT induce vomiting.	
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin wi	th water/shower.
<i>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</i>	
If in eyes: Rinse cautiously with water for several minutes. Remove contact le	enses, if present and easy to do.
Continue rinsing.	
IF exposed or concerned: Get medical advice/attention.	
Call a poison center/doctor if you feel unwell.	
Get medical advice/attention if you feel unwell.	
Take off immediately all contaminated clothing and wash it before reuse.	
In case of fire: Use CO2, powder or water spray to extinguish.	
Store in a well-ventilated place. Keep container tightly closed.	
Store in a well-ventilated place. Keep cool.	
Store locked up.	
Dispose of contents/container in accordance with local/regional/national/internat	tional regulations.
Chemical safety assessment: A Chemical Safety Assessment has not been carried	

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: • Date of preparation / last revision
- Revision 1.2 07/22/2024: Reviewed SDS for accuracy. MH/STN Revision 0.0 Creation date for SDS 12-03-2014. STN 07/22/2024 / 1.1 • Abbreviations and acronyms:
- Abbreviations and acronyms: IMDG: International Maritime Code for Dangerous Goods DOT: US Department of Transport Association IATA: International Air Transport Association EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) NFPA: National Fire Protection Association (USA) HMIS: Hazardous Materials Identification System (USA) VOC: Volatile Organic Compounds (USA, EU) LC50: Lethal concentration, 50 percent LD50: Lethal dose, 50 percent PBT: Persistent, Bioaccumulative and Toxic

(Contd. on page 13)

[–] US

Printing date 07/22/2024

TLV: Threshold Limit Value PEL: Permissible Exposure Limit REL: Recommended Exposure Limit BEI: Biological Exposure Limit

Reviewed on 07/22/2024

Trade name: Rgnt 35 Total Hydrolyzable Chloride Reactant (Blue Solution)

vPvB: very Persistent and very Bioaccumulative NIOSH: National Institute for Occupational Safety OSHA: Occupational Safety & Health Flammable Liquids 2: Flammable liquids – Category 2 Acute Toxicity - Oral 3: Acute toxicity - Category 3 Skin Corrosion 1A: Skin corrosion/irritation - Category 1A

Eye Damage 1: Serious eye damage/eye irritation - Category 1 Toxic to Reproduction 2: Reproductive toxicity – Category 2 Specific Target Organ Toxicity - Single Exposure 1: Specific target organ toxicity (single exposure) – Category 1 Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) – Category 2 Aspiration Hazard 1: Aspiration hazard – Category 1

 \cdot * Data compared to the previous version altered.

(Contd. of page 12)

US