

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY
1.1 Product Identifier

Product Name: **GLUQUAT 300**
 Chemical Family: N/Av
 CAS Number: N/Av

1.2 Relevant Identified Uses

Product Intended Uses: Liquid Disinfectant – for industrial use only

1.3 Supplier Details

Name & Address: Evergreen Solutions
 64210, 393 Loop East
 Okotoks, AB T1S 0L1
 SDS Contact: hbrar@evergreensolutions.com
 Manufacturer: West Penetone Inc.
 Information: 10900 Secant
 Montreal, QC,
 H1J 5S1
 Tel.: 514-355-4660

1.4 Emergency Contact

Emergency Telephone: 1-613-996-6666 (CANUTEC) or 403-554-1402
 Opening Hours: 1-800-610-5907 (M-F, 8am-5pm, MST) or +1 403 554-1402 (24 hours)

SECTION 2: HAZARD IDENTIFICATION
2.1 Substance/Mixture Classification

Hazard Classification: Skin Corrosion/Irritation (Category 1)
 Eye Damage/Irritation (Category 1)
 Acute Toxicity – Oral (Category 4)
 Acute Toxicity – Inhalation (Category 3)
 Specific Target Organ Toxicity – Single Exposure (Category 3)
 Sensitization – Respiratory (Category 1)
 Sensitization – Skin (Category 1A)

2.2 Label Elements

Hazard Pictogram(s):



Signal Word: DANGER

Hazard Statement(s): Causes severe skin burns and eye damage.
 Harmful if swallowed.
 Toxic if inhaled
 May cause respiratory irritation
 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 May cause an allergic skin reaction

Precautionary Statement(s)

Prevention:	<p>Do not breathe dust/fume/gas/mist/vapors/spray. Use only outdoors or in a well-ventilated area.</p> <p>Wash face, hands and any exposed skin thoroughly after handling. Do not eat, drink or smoke when using this product.</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Contaminated clothing should not be allowed out of the workplace.</p>
Response:	<p>In case of inadequate ventilation, wear respiratory protection.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing</p> <p>Immediately call a POISON CENTER or doctor/physician.</p> <p>IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.</p> <p>Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>Immediately call a POISON CENTER or doctor/physician.</p> <p>IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.</p>
Storage:	Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Disposal:	Dispose content/container to appropriate treatment and disposal plan in accordance with applicable laws and regulation, and product characteristic at time of disposal.

2.3 Other Hazards

Other Hazard Classification None known.

SECTION 3: COMPOSITION/INGREDIENT INFORMATION

3.1 Substances

Ingredient Name	Identifiers – CAS No.	% W/W
Glutaraldehyde	111-30-8	5 – 15
C9-11 Ethoxylated Alcohol	68439-46-3	5 – 10
Alkyl (C12-16) dimethyl benzyl -ammonium chloride	68424-85-1	2 – 3
Octyldecyl dimethyl ammonium chloride	68424-95-3	1 – 3
Tetrasodium EDTA	64-02-8	2 – 5
d-limonene	5989-27-5	2 – 5
Dioctyl dimethyl ammonium chloride	5538-94-3	1 – 3
Didecyl dimethyl ammonium chloride	7173-51-5	1 – 3

SECTION 4: FIRST-AID MEASURES

4.1 Description of First Aid Measures

Eye Contact:	Check for and remove any contact lenses. Do not rub eyes. Immediately flush with warm running water, holding the eyelids apart and occasionally
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	lifting the upper and lower eyelids, for 15 minutes. Call a physician if irritation develops.
Skin Contact:	Remove contaminated clothing and shoes, wash before reuse. Wash affected skin with soap and water or use a recognized skin cleanser. See physician if irritation develops.
Inhalation:	Remove affected victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Ingestion:	Rinse out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do NOT induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Call a POISON CENTER/doctor if you feel unwell.
First Aid Protection:	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most Important Symptoms & Effects (Acute and Delayed)

Eye Contact:	Causes burns to eyes, skin and mucous membranes. Symptoms include tingling sensation and / or reddening of tissues
Skin Contact:	Causes burns to eyes, skin and mucous membranes. Symptoms include tingling sensation and / or reddening of tissues
Inhalation:	Inhalation of mist/vapors/spray may cause respiratory tract irritation leading to a temporary burning sensation of the nose and throat, coughing, and difficulty breathing.
Ingestion:	Ingestion may cause irritation or a burning sensation of the mouth and throat and abdominal pain.

4.3 Indication of Any Immediate Medical Attention and Special Treatment Needed

Physician Notes:	Treat symptomatically.
Specific Treatments:	No specific treatment.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 Extinguishing Media

Suitable Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Media:	None.

5.2 Special Hazards from Substance/Mixture

Hazards from substance:	The product causes burn of eyes, skin and mucous membranes.
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	Hazardous Combustion Products:	Not available.
5.3	Advice for Firefighters	
	Special Protective Actions:	No specific data.
	Special Protective Equipment:	As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal Precautions, Protective Equipment and Emergency Procedures

Non-emergency Personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
Emergency Responders:	Use personnel protection recommended in Section 8 to deal with the spillage. See also the information in "Non-emergency Personnel".

6.2 Environmental Precautions

Environmental Precautions:	Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.
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6.3 Methods and Materials of Containment and Cleanup

Small Spill:	Contain and solidify with inert absorbent material. Keep in suitable, closed containers for disposal.
Large Spill:	Dike with earth, sand or inert sorbent material to contain spill. Remove liquid with compatible pumps or vacuum equipment. Place in suitable container for disposal. Flush area with water. Keep materials which can burn away from spilled materials. Spontaneous combustion hazard: combustible materials exposed to hydrogen peroxide should be immediately submerged in or rinsed with large amounts of water to ensure that all hydrogen peroxide is removed. Residual hydrogen peroxide that can dry (upon evaporation hydrogen peroxide can concentrate) on organic materials such as paper, fabrics, cotton, leather, wood or other combustibles, can cause the material to ignite and result in a fire.

6.4 Reference to Other Sections

Additional Sections:	See Section 7 for handling and storage information. See Section 8 for information on appropriate personal protective equipment. See Section 13 for additional waste treatment information.
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SECTION 7: HANDLING AND STORAGE

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for Safe Handling

Protective Measures: Keep away from heat, hot surfaces, sparks, open flames or other ignition sources. No smoking. Empty containers may contain hazardous product residues. Keep the containers closed when not in use. Protect against physical damage. Use appropriate personnel protective equipment.

General Occupational Hygiene Advice: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for Safe Storage and Incompatibilities

Safe Storage: Keep containers tightly closed away from direct sunlight in a dry, cool and well-ventilated place, away from incompatible materials.

Incompatibilities: Strong oxidizers.

7.3 Specific End Use(s)

Recommendations: When product is used in confined space, the use of proper ventilation is required.

Industrial Sector Specific Solutions: Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control Parameters

Occupational Exposure Limits:

Ingredient	ACGIH TLV	OSHA PEL
Glutaraldehyde 111-30-8	TWA: 0.05 ppm	0.2 ppm 0.8 mg/m ³

Recommended

Monitoring Procedures: If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. Reference to national guidance documents for methods for the determination of hazardous substances will be required.

DNELs/DMELs: No DNELs/DMELs available.

PNECs: No PNECs available.

8.2 Exposure Controls

Engineering Controls: Local exhaust ventilation as necessary to maintain exposures to within applicable limits. Make up air should always be supplied to balance air



exhausted (either generally or locally). Ventilation required when spraying or applying in a confined area.

Individual Protection Measures

Hygiene Measures:	Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye/Face Protection:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection. Chemical goggles; also wear a face shield if splashing hazard exists.

Skin Protection

Protective Handwear:	Rubber or neoprene gloves. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body Protection:	Body suits, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times. Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.
Other Skin Protection:	Use personal protective equipment as required. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment.
Respiratory Protection:	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.
Environmental Exposure Controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on Basic Physical and Chemical Properties

Appearance

Physical State:	Liquid
Color:	Clear, yellow
Odor:	Aldehyde
Odor Threshold:	N/E

pH Factor:	4 – 5
Melting/Freezing Point:	N/Av
Boiling Point (°C):	100°C (212°F)
Flash Point:	None
Evaporation Rate:	1
Flammability:	N/Av
Explosive Limits:	None
Vapor Pressure:	N/Av
Vapor Density (air = 1):	N/Av
Relative Density:	1.04
Solubility(ies):	N/Av
Partition Coefficient:	N/Av
Auto-ignition	N/E
Temperature:	
Decomposition Temp.:	N/Av
Viscosity:	< 10 cps
Explosive Properties:	N/E
Oxidizing Properties:	N/Av

9.2 Other Information

Solubility in Water:	Complete
Pour Point:	N/Av

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:	Not reactive.
10.2 Chemical Stability:	Stable under normal conditions.
10.3 Possibility of Hazardous Reactions:	No specific data.
10.4 Conditions to Avoid:	Store away from incompatible materials.
10.5 Incompatible Materials:	Strong oxidizers.
10.6 Hazardous Decomposition Product(s):	None.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Toxicological Effects Information

Acute Toxicity

Conclusion/Summary:

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
Alkyl (C12-16) dimethyl benzyl ammonium chloride 68424-85-1	404 mg/kg (Rat)	>2000 mg/kg (Rabbit)	Not applicable
Octyldecyl dimethyl ammonium chloride 68424-95-3	50-500 mg/kg (Rat)	>2000 mg/kg (Rabbit)	Not applicable
Dioctyl dimethyl ammonium chloride 5538-94-3	1025 mg/kg (Rat)	>2000 mg/kg (Rabbit)	Not applicable
Didecyl dimethyl ammonium chloride 7173-51-5	84 mg/kg (Rat)	>2000 mg/kg (Rabbit)	Not applicable
Glutaraldehyde 111-30-8	77 mg/kg (rat)	>1000 mg/kg (Rabbit)	0.28 -0.39 mg/L rat – 4h
Tetrasodium EDTA 64-02-8	> 2000 mg/kg (Rat)	No data available	Not applicable
C9-11 ethoxylated alcohol 68439-46-3	> 2 g/kg (Rat)	No data available	Not applicable
d-limonene 5989-27-5	4400 mg/kg (rat)	>5000 mg/kg (rabbit)	Not available



Irritation/Corrosion

Conclusion/Summary: No adverse effects are anticipated.

Sensitization

Conclusion/Summary: May cause respiratory and skin sensitization.

Mutagenicity

Conclusion/Summary: No adverse mutagenic effects are anticipated.

Carcinogenicity

Conclusion/Summary: No carcinogenic components identified.

Reproductive Toxicity

Conclusion/Summary: No specific data.

Teratogenicity

Conclusion/Summary: No adverse teratogenic effects are anticipated.

Specific Target Organ Toxicity – Single Exposure

Conclusion/Summary: May cause respiratory irritation

Specific Target Organ Toxicity – Single Exposure

Conclusion/Summary: Not available.

Aspiration Hazard

Conclusion/Summary: Not available.

Likely Routes of Exposure: Oral, Dermal, Inhalation, Ingestion.

Exposure:

Potential Acute Health Effects

Eye Contact: Corrosive to eyes and may cause grave lesions.

Inhalation: Spray mist may cause irritation or burns to respiratory tract.

Skin Contact: Corrosive to skin.

Ingestion: Ingestion may cause burns to the digestive and respiratory tract.

Physical, Chemical and Toxicological Symptoms

Eye Contact: No specific data.

Inhalation: No specific data.

Skin Contact: Symptoms include tingling sensation and / or reddening of tissues, eventually leading to burn lesions. See Section 4.

Ingestion: No specific data.

Delayed and Immediate Effects and Chronic Effects from Short and Long-Term Exposure

Short Term Exposure

Potential Immediate

Effects: Not available.

Potential Delayed Effects: No specific data.

Effects:

Other information: Not available

SECTION 12: ECOLOGICAL INFORMATION

12.1 Ecotoxicity: No specific data.

12.2 Persistence & Degradability: No specific data.

12.3 Bioaccumulative Potential: No specific data.

12.4 Mobility in Soil: Not Available.

12.5 PBT and vPvB Assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Other Adverse Effects: None.

SECTION 13: DISPOSAL CONSIDERATIONS

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste Treatment

Product

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and nonrecyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous Waste: The classification of the product may meet the criteria for a hazardous waste.

Packaging

Disposal Methods: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

Special Precautions: This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

		ADR	DOT	TDG	IMO/IMDG	ICAO/IATA
14.1	UN Number	Not regulated.	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2	UN Shipping Name	-	-	-	-	-
14.3	Transport Hazard Class(es)	-	-	-	-	-
14.4	Packaging Group	-	-	-	-	-
14.5	Environmental Hazards	No	No	No	No	No

14.6 Special User Precautions: **Transport within user's premises:** Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

14.7 Bulk Transportation: *Transportation in bulk accordance to Annex II of Marpol 73/78 and IBC Code.*

SECTION 15: REGULATORY INFORMATION

15.1 Safety, Health & Environmental Regulations/Legislation

US Federal Regulations

OSHA

This material is classified as hazardous under OSHA regulations (29 CFR 1910.1200) (HazCom 2012).

Hazardous classification:

Skin Corrosion/Irritation (Category 1)

Eye Damage/Irritation (Category 1)

Acute Toxicity – Oral (Category 4)

Acute Toxicity – Inhalation (Category 3)

Specific Target Organ Toxicity – Single Exposure (Category 3)

Sensitization – Respiratory (Category 1)

Sensitization – Skin (Category 1A)

All chemicals listed.

USA TSCA

SARA TITLE III

Sec. 302.

Sec. 313.

40 CFR 372 This substance contains no materials subject to the reporting requirements of SARA (III) Section 313.

Sec. 311 and 312.

40 CFR 370 SDS Requirements. Hazardous Classes: Immediate acute health hazard.

US State Right to Know Law **Proposition 65 California Safe Drinking Water and Toxic Enforcement Act of 1986:** This product is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels under which would be subject to the proposition.

International Inventories

Canada:

All components of this product comply with the inventory requirements administrated by the *Domestic Substances List (DSL)*.

Canada Regulatory Information:

WHMIS Classification: The product has been classified in accordance with the hazard criteria of the CPR, and the SDS contains all the information required by the CPR.

EU Regulations

D.I.N. Number

European Union (EINECS/ELINCS): All chemicals listed.

02449234

15.2 Chemical Safety Assessment:

No chemical safety assessment has been carried out for mixture by the supplier.

SECTION 16: OTHER INFORMATION

Abbreviations and Acronyms

ATE:

Acute Toxicity Estimate

CLP:

Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]

DMEL:

Derived Minimal Effect Level

DNEL:

Derived No Effect Level



EUH Statement: CLP-specific Hazard statement
 PBT: Persistent, Bioaccumulative and Toxic
 PNEC: Predicted No Effect Concentration
 RRN: REACH Registration Number
 vPvB: Very Persistent and Very Bioaccumulative

Procedure Used to Derive the Classification According to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Corrosion/Irritation (Category 1)	On basis of test data.
Eye Damage/Irritation (Category 1)	On basis of test data.
Acute Toxicity – Oral (Category 4)	On basis of test data.
Acute Toxicity – Inhalation (Category 3)	On basis of test data.
Specific Target Organ Toxicity – Single Exposure (Category 3)	On basis of test data.
Sensitization – Respiratory (Category 1)	On basis of test data.
Sensitization – Skin (Category 1A)	On basis of test data.

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 Replaces:
 Prepared By: Evergreen Solutions Corp.

Notice to Reader

To the best of our knowledge, the information contained herein is accurate. However, neither the abovenamed supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein.

Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

<< N/E = Not established N/AP = Not Applicable N/AV = Not Available C.O.C = Cleveland Open Cup >>