

4. FIRST AID MEASURES

Description of required first aid measures

Eye contact	In case of contact with eyes, flush with fresh water. Check for and remove any contact lenses. Continue rinsing. If irritation persists, get medical attention.
Skin contact	In case of irritation, rinse with water. Get medical attention if irritation persists.
Ingestion	Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
Inhalation	Move victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if adverse health effects persist or are severe. Maintain an open airway.

Most important symptoms/effects, acute and delayed

Eye contact	Adverse symptoms may include the following: irritation watering redness
Skin contact	No specific symptoms under normal use conditions.
Ingestion	No specific symptoms under normal use conditions.
Inhalation	No specific symptoms under normal use conditions.
Notes to physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

See toxicological information (Section 11)

5. FIRE-FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Special fire-fighting procedures	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action should be taken involving any personal risk or without suitable training.
Special protective equipment for fire-fighters	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	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 spilled material. Initiate spill response procedures if required.
Personal protection	Put on appropriate personal protective equipment (see Section 8).
Cleaning method	Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Use a water rinse for final clean-up.

7. HANDLING AND STORAGE

Handling	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 Section 8 for additional information on hygiene measures.
Storage and incompatibility	Store in accordance with local regulations. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Keep out of reach of children. Store away from incompatible materials (see Section 10).

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Ingredient name	Exposure limits
Ethyl alcohol	CA Alberta Provincial (Canada, 4/2009). 8 hrs OEL: 1000 ppm 8 hours. 8 hrs OEL: 1880 mg/m ³ 8 hours. CA Quebec Provincial (Canada, 1/2014). TWAEV: 1000 ppm 8 hours. TWAEV: 1880 mg/m ³ 8 hours. CA British Columbia Provincial (Canada, 2/2015). STEL: 1000 ppm 15 minutes. CA Ontario Provincial (Canada, 1/2013). STEL: 1000 ppm 15 minutes.

Appropriate engineering controls Good general ventilation should be sufficient to control worker exposure to airborne contaminants that could arise from the use if this product.

Individual protection measures

Eye/face protection Continued or severe exposures might required to wear a face shield or chemical splash goggles. It is minimally suggested to wear safety glasses while using or handling this product.

Hands and Body protection It is suggested to wear chemical-resistant gloves while using or handling this product.

Respiratory protection No specific protective equipment required under normal use conditions.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Liquid. [Limpid liquid]	pH	7.8	Flash point	[Product does not sustain combustion.]
Color	Blue. [Dark]	Relative density	0.992	Melting point	Not available.
Odor	Characteristic.	Viscosity	Not available.	Boiling point	Not available.
Odor threshold	Not available.	Vapor pressure	Not available.	Fire point	: Not available.
Solubility in water	: Not available.	Vapor density	: Not available.	Evaporation rate	: Not available.
Decomposition temperature	: Not available.	Auto-ignition temperature	: Not available.		
Partition coefficient: n-octanol/ water	: Not available.	Flammability (solid, gas)	: Not available.		
Lower and upper explosive (flammable) limits	: Not available.				

10. STABILITY AND REACTIVITY

Reactivity No specific test data related to reactivity available for this product or its ingredients.

Chemical stability The product is stable.

Incompatible materials No specific data.

Conditions to avoid No specific data.

Possibility of hazardous reactions Under normal conditions of storage and use, hazardous reactions will not occur.

Hazardous decomposition products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Route of exposure Not available.

	<u>Potential acute health effects</u>	<u>Symptoms</u>
Eye contact	May cause eye irritation.	Adverse symptoms may include the following: irritation watering redness
Skin contact	No known significant effects or critical hazards.	No specific symptoms under normal use conditions.
Ingestion	No known significant effects or critical hazards.	No specific symptoms under normal use conditions.
Inhalation	No known significant effects or critical hazards.	No specific symptoms under normal use conditions.

Toxicity data

Product/ingredient name	Result	Species	Dose	Exposure
Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides ethanol	LD50 Oral	Rat	426 mg/kg	-
	LC50 Inhalation Vapor	Mouse	>60000 mg/l	1 hours
	LC50 Inhalation Vapor	Rat	124700 mg/m ³	4 hours
	LD50 Dermal	Rabbit	>20000 mg/kg	-
	LD50 Oral	Mouse	8300 mg/kg	-
	LD50 Oral	Rat	7 g/kg	-
	LD50 Oral	Rat	15010 mg/kg	-

Information on toxicological effects

Mutagenicity No known significant effects or critical hazards.

Teratogenicity No known significant effects or critical hazards.

Developmental effects No known significant effects or critical hazards.

Fertility effects No known significant effects or critical hazards.

Sensitization Not available.

Carcinogenicity No known significant effects or critical hazards.

12. ECOLOGICAL INFORMATION

Ecotoxicity data

Product/ingredient name	Result	Species	Exposure
quaternary ammonium compounds, benzyl-C8-18-alkyldimethyl, chlorides Ethyl alcohol	Acute EC50 37 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 64 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 4.15 ppb Marine water	Daphnia - Daphnia magna	21 days
	Chronic NOEC 32.2 ppb	Fish - Pimephales promelas	34 days
	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 0.375 ul/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks

Persistence and degradability : Unknown **Bioaccumulative potential** : Unknown **Mobility in soil** : Unknown **Other adverse effects** : Unknown

13. DISPOSAL CONSIDERATIONS

Disposal methods Dispose content and container in accordance with local, regional and national regulation in force.

14. TRANSPORT INFORMATION

	UN number	UN proper shipping name	Transport hazard class (es)	Packing group	TDG Placard
TDG Classification	Not regulated.	-	-	-	

Additional information See shipping documents for specific information on DOT, IMDG or IATA

15. REGULATORY INFORMATION

Canadian lists

Canadian NPRI The following components are listed: Ethanol

CEPA Toxic substances None of the components are listed.

Canada inventory All components are listed or exempted.

International lists

United States All components are listed or exempted.

16. OTHER INFORMATION

Hazardous Material Information System (U.S.A.)

Health Hazard	1
Fire Hazard	0
Reactivity	0
Personal Protection	B

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