



## SAFETY DATA SHEET BELLACIDE 301

### 1. IDENTIFICATION

Product Name BELLACIDE 301  
Chemical Name Contains tributyltetradecylphosphonium chloride.  
Product No. 101400, 101452  
Identification No. 3082  
Identified uses Biocides for water treatment.  
Supplier BWA Water Additives US LLC  
1979 Lakeside Parkway  
Suite 925, Tucker, GA30084  
USA  
T: +1 800 600 4523  
T: +1 678 802 3050  
E: msds@wateradditives.com  
Emergency Telephone Chemtrec Phone: 1-800-424-9300

### 2. HAZARD(S) IDENTIFICATION

#### EMERGENCY OVERVIEW

EPA REGISTRATION No. 83451-22 EPA SIGNAL WORD: DANGER. EPA FIFRA Labelling information in Section 15 (PRN 2012-1)

Appearance Clear liquid.  
Color Yellow to amber  
Odor Slight odor.  
GHS Pictogram



Signal Word Warning

Hazard Statements

H317 May cause an allergic skin reaction.  
H332 Harmful if inhaled.  
H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P271 Use only outdoors or in a well-ventilated area.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P302+352 IF ON SKIN: Wash with plenty of soap and water.  
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P501 Dispose of contents/container in accordance with national regulations.

GHS Classification

Physical and Chemical Hazards Not classified.  
Human health Acute Tox. 4 - H332; Skin Sens. 1 - H317  
Environment Aquatic Acute 1 - H400; Aquatic Chronic 1 - H410

**BELLACIDE 301****WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHMIS**

## WHMIS Label

Materials Causing Other  
Toxic Effects.**Controlled Product Classification**

Canadian WHMIS Classification This Product has been classified according to the hazard criteria of the Controlled Products Regulations and the MSDS contains all required information. D2B

**Inhalation**

Harmful by inhalation.

**Ingestion**

May cause discomfort if swallowed.

**Skin Contact**

Non Irritant. May cause sensitization by skin contact.

**Eye Contact**

Irritation, burning, lachrymation, blurred vision after liquid splash.

**Route Of Entry**

Inhalation.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]	2.22%
CAS No.: 31512-74-0	EC No.:
GHS Classification Acute Tox. 4 - H332; Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Aquatic Acute 1 - H400; Aquatic Chronic 1 - H410	
SODIUM LAURIMINODIPROPIONATE	1-5%
CAS No.: 14960-06-6	EC No.: 239-032-7
GHS Classification Eye Irrit. 2 - H319	
TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE	2.78%
CAS No.: 81741-28-8	EC No.: 279-808-2
GHS Classification Acute Tox. 4 - H302; Acute Tox. 2 - H330; Skin Corr. 1B - H314; Aquatic Acute 1 - H400; Aquatic Chronic 1 - H410	

**Composition Comments**

Aqueous solution containing tributyltetradecylphosphonium chloride

**4. FIRST-AID MEASURES****Description of first aid measures****Inhalation**

Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. For breathing difficulties oxygen may be necessary. Get medical attention.

## BELLACIDE 301

### Ingestion

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Rinse mouth thoroughly. Get medical attention immediately!

### Skin Contact

Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.

### Eye Contact

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention immediately. Continue to rinse.

### Most important symptoms and effects, both acute and delayed

#### Inhalation

Congestion of the lungs may occur producing severe shortness of breath.

#### Ingestion

May cause chemical burns in mouth and throat. Nausea, vomiting.

#### Skin Contact

Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping.

#### Eye Contact

May cause blurred vision and serious eye damage.

### Indication of any immediate medical attention and special treatment needed

#### Notes To The Physician

Probable mucosal damage may contraindicate the use of gastric lavage.

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## 5. FIRE-FIGHTING MEASURES

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#### Auto Ignition Temperature (°C)

Not available.

#### Flammability Limit - Lower(%)

Not available.

#### Flammability Limit - Upper(%)

Not available.

#### Flash point (°C)

Not available.

#### Extinguishing Media

This product is not flammable. Use: Water spray, fog or mist. Foam, carbon dioxide or dry powder.

#### Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted. This material will not burn until the water has evaporated. Residue can burn.

#### Specific Hazards

Fire creates: Toxic gases/vapors/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Oxides of: Phosphorus. Chlorine.

#### Special Fire Fighting Procedures

Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

#### Protective Equipment For Fire-Fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire. Leave danger zone immediately.

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## 6. ACCIDENTAL RELEASE MEASURES

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#### Personal Precautions

Follow precautions for safe handling described in this material safety data sheet. For personal protection, see section 8.

#### Environmental Precautions

Avoid release to the environment. To prevent release, place container with damaged side up.

#### Spill Clean Up Methods

Should be prevented from entering drains. Absorb in vermiculite, dry sand or earth and place into containers. Collect and reclaim or dispose in sealed containers in licensed waste. Containers with collected spillage must be properly labelled with correct contents and hazard symbol. Product is toxic to aquatic organisms. Minimise/prevent product from entering drains or water courses

#### Reference to other sections

For waste disposal, see section 13.

**BELLACIDE 301****7. HANDLING AND STORAGE****Handling**

Avoid spilling, skin and eye contact. Avoid forming spray/aerosol mists. Observe good chemical hygiene practices.

**Storage**

Store in tightly closed original container in a dry, cool and well-ventilated place. Store at temperature below 50°C. Do not store for extended periods below freezing point or in direct sunlight. IF FROZEN: once fully thawed, agitate container vigorously to ensure the product is homogeneous. Keep separate from food, feedstuffs, fertilizers and other sensitive material.

**Storage Class**

Miscellaneous hazardous material storage.

**Specific end use(s)**

The identified uses for this product are detailed in Section 1.2.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Ingredient Comments**

No exposure limits noted for ingredient(s).

**Protective Equipment****Process Conditions**

Provide eyewash, quick drench.

**Engineering Measures**

Provide sufficient ventilation during operations which cause vapor formation.

**Respiratory Equipment**

If exposure to spray, mist or vapours is possible wear respirator face mask with appropriate cartridge.

A respiratory protection programme that meets OSHA 1910.134 and ANZI Z88.2 requirements must be followed whenever work place conditions warrant a respirator's use.

**Hand Protection**

Use protective gloves made of: Neoprene, nitrile, polyethylene or PVC. Selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Be aware that the liquid may penetrate the gloves. Frequent change is advisable.

**Eye Protection**

Wear approved safety goggles. Use face shield in case of splash risk.

**Other Protection**

Wear appropriate clothing to prevent any possibility of skin contact.

**Hygiene Measures**

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

**Skin Protection**

Wear apron or protective clothing in case of contact.

**9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance	Clear liquid.
Color	Yellow to amber
Odor	Slight odor.
Solubility	Miscible with water
Initial boiling point and boiling range (°C)	
Not available.	
Melting point (°C)	
Not available.	
Relative density	0.90 - 1.10 20°C
Vapor density (air=1)	
Not available.	

**BELLACIDE 301****Vapor pressure**

Not available.

**Evaporation rate**

Not available.

pH-Value, Conc. Solution 6.0 - 7.0

Viscosity 1.40 - 1.60 cSt 20°C

**Decomposition temperature (°C)**

Not available.

**Odour Threshold, Lower**

Not available.

**Odour Threshold, Upper**

Not available.

**Flash point (°C)**

Not available.

**Auto Ignition Temperature (°C)**

Not available.

**Flammability Limit - Lower(%)**

Not available.

**Flammability Limit - Upper(%)**

Not available.

**Partition Coefficient**

(N-Octanol/Water)

Not available.

**Explosive properties**

Scientifically unjustified.

**Oxidising properties**

Does not meet the criteria for oxidising.

Not available.

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**10. STABILITY AND REACTIVITY**

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**Reactivity**

No specific reactivity hazards associated with this product.

**Stability**

Stable under normal temperature conditions and recommended use.

**Hazardous Polymerisation**

Will not polymerise.

**Conditions To Avoid**

Avoid excessive heat for prolonged periods of time.

**Materials To Avoid**

Strong acids. Strong alkalis.

**Hazardous Decomposition Products**Carbon dioxide (CO<sub>2</sub>). Carbon monoxide (CO). Chlorine. Oxides of: Phosphorus.

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**11. TOXICOLOGICAL INFORMATION**

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**Acute toxicity:****Acute Toxicity (Oral LD50)**

&gt; 2000 mg/kg Rat

**Acute Toxicity (Dermal LD50)**

&gt; 2000 mg/kg Rat

**Acute Toxicity (Inhalation LC50)**

1.55 mg/l (dust/mist) Rat

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**12. ECOLOGICAL INFORMATION**

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**Ecotoxicity**

The product contains substances which are toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

**BELLACIDE 301**

## Partition coefficient

Not available.

## Mobility:

The product is miscible with water. May spread in water systems.

## Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

## Other adverse effects

Not available.

**13. DISPOSAL CONSIDERATIONS**

## Waste Management

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

## Disposal Methods

Absorb in vermiculite or dry sand and dispose of at a licenced hazardous waste collection point.

Liquid material should be incinerated. Material absorbed onto sand or earth should be disposed of as solid waste in accordance with local regulations. Empty packaging may contain product residues and due consideration should be given prior to disposal.

**14. TRANSPORT INFORMATION**

UN No. (DOT/TDG)	3082
UN No. (IMDG)	3082
UN No. (ICAO)	3082
DOT Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Contains tributyltetradecylphosphonium chloride)
TDG Proper Shipping Name	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., (Contains tributyltetradecylphosphonium chloride)
DOT Hazard Class	9
DOT Hazard Label	Class 9
TDG Class	9
IMDG Class	9
ICAO Class	9
Transport Labels	



DOT Pack Group	III
TDG Pack Group	III
IMDG Pack Group	III
Air Pack Group	III

Environmentally Hazardous Substance/Marine Pollutant



**BELLACIDE 301****Markings**

MARINE POLLUTANT

Classification Code (Adr) M6

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**15. REGULATORY INFORMATION**

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**Regulatory Status (US)**

This Product is Hazardous under the OSHA Hazard Communication Standard. SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372. PROPOSITION 65: This product does not contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity and for which warnings are now required.

**US Federal Regulations****SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

None of the ingredients are listed.

**CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**

None of the ingredients are listed.

**SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

None of the ingredients are listed.

**SARA 313 Emission Reporting**

None of the ingredients are listed.

**CAA Accidental Release Prevention**

None of the ingredients are listed.

**FDA – Essential Chemical**

None of the ingredients are listed.

**FDA – Precursor Chemical**

None of the ingredients are listed.

**OSHA Highly Hazardous Chemicals**

None of the ingredients are listed.

**US State Regulations****California Proposition 65 Carcinogens and Reproductive Toxins**

None of the ingredients are listed.

**California Air Toxics "Hot Spots" (A-I)**

None of the ingredients are listed.

**California Air Toxics "Hot Spots" (A-II)**

None of the ingredients are listed.

**Massachusetts "Right To Know" List**

None of the ingredients are listed.

**Rhode Island "Right To Know" List**

None of the ingredients are listed.

**Minnesota "Right To Know" List**

None of the ingredients are listed.

**New Jersey "Right To Know" List**

None of the ingredients are listed.

**Pennsylvania "Right To Know" List**

None of the ingredients are listed.

**Fifra Information**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**DANGER.**

Corrosive.

Causes irreversible eye damage.

Harmful if swallowed or absorbed through the skin or inhaled.

**International Inventories****EU - EINECS/ELINCS**

All ingredients are listed or exempt.

**BELLACIDE 301****Canada – DSL/NDSL**

All ingredients are listed or exempt.

**US - TSCA**

All ingredients are listed or exempt.

**US – TSCA 12(b) Export Notification**

None of the ingredients are listed.

**Australia - AICS**

The following ingredients are listed.

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]

TRIBUTYL TETRADECYL PHOSPHONIUM CHLORIDE

WATER

**Japan – MITI**

The following ingredients are listed.

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]

WATER

**Korea - KECI**

The following ingredients are listed.

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]

TRIBUTYL TETRADECYL PHOSPHONIUM CHLORIDE

WATER

**China - IECSC**

The following ingredients are listed.

Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]

TRIBUTYL TETRADECYL PHOSPHONIUM CHLORIDE

WATER

**Phillippines – PICCS**

The following ingredients are listed.

TRIBUTYL TETRADECYL PHOSPHONIUM CHLORIDE

WATER

**New Zealand - NZIOC**

The following ingredients are listed.

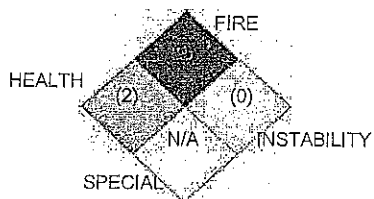
Poly[oxyethylene(dimethyliminio)ethylene(dimethyliminio)ethylenedichloride]

TRIBUTYL TETRADECYL PHOSPHONIUM CHLORIDE

WATER

**16. OTHER INFORMATION****HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)**

HEALTH	2
FLAMMABILITY	0
PHYSICAL	0
PERSONAL PROTECTION	F

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)****General Information**

For advice on chemical emergencies, spillages, fires or first aid in relation to this product please contact the relevant emergency number below :

EU/English Speakers - +44 (0) 1235 239 670 (NCEC)

Arabic Speakers - +44 (0) 1235 239 671

Asia/Pacific countries - +65 3158 1074

For emergencies within China - +86 10 5100 3039



## BELLACIDE 301

### Revision Comments

Conversion to GHS (HCS 2012 / WHMIS 2015)

Issued By BWA Water Additives Regulatory Group, +44(0)1618646699

Revision Date 3rd March, 2015

Revision 3

Sds No. 11375

### Disclaimer

For safety reasons it is IMPERATIVE that customers:-

1. Ensure that all those within their control who use the products are supplied with all relevant information contained within the Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions and warnings contained therein.
2. Consult BWA Water Additives before using or supplying the product for any other applications. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.