



MATERIAL SAFETY DATA SHEET

BELLACIDE 355

1 IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

PRODUCT NAME	BELLACIDE 355
CHEMICAL NAME	Aqueous solution of tributyl tetradecyl phosphonium chloride.
PRODUCT NO.	100736, 100737, 100833.
PRODUCT USE	Industrial Water Treatment
SUPPLIER	BWA Water Additives US LLC 1979 Lakeside Parkway Suite 925, Tucker. GA30084. T: (800) 600-4523 . (Technical/commercial enquiries) E: MSDS@wateradditives.com
EMERGENCY TELEPHONE IDENTIFICATION No.	Chemtrec Phone: 1-800-424-9300 2922

2 HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

EPA SIGNAL WORD: DANGER.

POTENTIAL HEALTH EFFECTS

INHALATION

Toxic by inhalation. LC50 0.9 mg/L. Administered as a liquid aerosol for a single 4h nose only exposure to rats.

INGESTION

Harmful if swallowed.

SKIN CONTACT

Causes burns.
Not a skin sensitizer.

EYE CONTACT

Causes burns.

HEALTH WARNINGS

This substance is corrosive.

ROUTE OF ENTRY

Skin and/or eye contact. Ingestion. Inhalation:

TARGET ORGANS

Eyes Skin

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Weight
TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE	279-808-2	81741-28-8	5-10%

COMPOSITION COMMENTS

Aqueous solution of tributyl tetradecyl phosphonium chloride.

4 FIRST-AID MEASURES

NOTES TO THE PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

INHALATION

Remove victim immediately from source of exposure. Provide rest, warmth and fresh air. Get medical attention if any discomfort continues.

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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 if any discomfort continues.

SKIN CONTACT

Remove victim immediately from source of exposure. Immediately remove contaminated clothing. Wash skin thoroughly with soap and water for several minutes. Get medical attention if any discomfort continues.

EYE CONTACT

Remove victim immediately from source of exposure. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Get medical attention promptly if symptoms occur after washing.

5 FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Fire can be extinguished using: Carbon dioxide (CO₂). Foam. Dry chemicals, sand, dolomite etc. Water spray, fog or mist.

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.

UNUSUAL FIRE & EXPLOSION HAZARDS

No unusual fire or explosion hazards noted.

SPECIFIC HAZARDS

Fire creates: Toxic gases/vapors/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of: Phosphorus. Chlorine.

PROTECTIVE MEASURES IN FIRE

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

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Follow precautions for safe handling described in this 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 labeled with correct contents and hazard symbol.

7 HANDLING AND STORAGE

HANDLING

Avoid spilling, skin and eye contact. Avoid inhalation of vapors. Observe good chemical hygiene practices.

STORAGE

Do NOT use container made of: Carbon steel. Store separated from: Alkalis. Reducing Agents. Keep containers tightly closed. Keep separate from food, feedstuffs, fertilizers and other sensitive material. Store at moderate temperatures in dry, well ventilated area. Protect from light, including direct sunrays.

STORAGE CLASS

Corrosive storage.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT COMMENTS

No exposure limits noted for ingredient(s).

PROCESS CONDITIONS

Provide eyewash station.

PROTECTIVE EQUIPMENT

BELLACIDE 355**ENGINEERING MEASURES**

Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

Provide adequate ventilation.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

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

Selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances.

Gloves should be replaced immediately if signs of degradation are observed.

It has been found that gloves made from rubber, neoprene or PVC provide short-term splash protection.

EYE PROTECTION

Wear protective eye wear (goggles or face mask).

Use face shield in case of splash risk.

HYGIENE MEASURES

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

SKIN PROTECTION

When handling the product to prevent skin contact by splashing, wear a rubber apron.

9 PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Liquid		
COLOR	Colorless		
ODOR	Slight odor		
BOILING POINT (°C)	100	pH-VALUE, CONC. SOLUTION	6 - 8

10 STABILITY AND REACTIVITY**STABILITY**

Stable under normal temperature conditions and recommended use.

MATERIALS TO AVOID

Strong alkalis. Strong reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

Fire creates: Toxic gases/vapors/fumes of: Carbon monoxide (CO). Carbon dioxide (CO₂). Oxides of: Phosphorus. Chlorine.

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 >2000 mg/kg (oral rat)

TOXIC DOSE 2 - LD 50 >4000 mg/kg (ipr-rat)

TOXICOLOGICAL INFORMATION

Ames Test negative

INHALATION

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INGESTION

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SKIN CONTACT

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Not a skin sensitizer.

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EYE CONTACT

Causes burns.

HEALTH WARNINGS

This substance is corrosive.

12 ECOLOGICAL INFORMATION

ECOTOXICITY

The product contains a substance which is toxic to aquatic organisms and which may cause long term adverse effects in the aquatic environment.

13 DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT

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

Triple rinse drums prior to recycling or disposal.

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



DOT PROPER SHIPPING NAME	CORROSIVE LIQUID, TOXIC, N.O.S. (contains tributyltetradecylphosphonium chloride), Marine Pollutant		
DOT PROPER SHIPPING NAME	CORROSIVE LIQUID, TOXIC, N.O.S. (contains tributyltetradecylphosphonium chloride), Marine Pollutant		
TDG SHIPPING NAME	CORROSIVE LIQUID, TOXIC, N.O.S. (contains tributyltetradecylphosphonium chloride), Marine Pollutant		
IDENTIFICATION No.	2922	DOT HAZARD CLASS	8 (6.1)
DOT PACKING GROUP	II	U.S DOT HAZARD LABEL	Corrosive Poison
UN NO. SEA	2922	IMDG CLASS	8 (6.1)
IMDG PACK GR.	II	UN NO. AIR	2922
AIR CLASS	8 (6.1)	AIR PACK GR.	II
TDG CLASS	8 (6.1)	TDG PACKING GROUP	II

15 REGULATORY INFORMATION

INVENTORIES

COMPONENT	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE	DSL	No.	EINECS	Yes.	N/A.	Yes.	Yes.	Yes.

COMPONENT	TSCA 12(b) Export Notification
TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE	No.

US FEDERAL REGULATIONS

COMPONENT	SARA 302-TP	CERCLA-RQ	SARA 313
TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE	No	No	N/A.

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CLEAN AIR ACT

COMPONENT	CAA Accidental Release Prevention
TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE	No

US STATE REGULATIONS

COMPONENT	FDA ESSENTIAL CHEMICAL	FDA PRECURSOR
TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE	No.	No.

US STATE REGULATIONS

COMPONENT	CAS	CA	FL	MA	MN	NJ	PA	RI
TRIBUTYLTETRADECYL PHOSPHONIUM CHLORIDE	81741-28-8	No	No	No	No	No	No	No

REGULATORY STATUS (US)

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.
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. EPA REGISTRATION NUMBER 279-3139

REGULATORY REFERENCES

29 CFR 1910.1010 Federal Regulations (OSHA Standard).

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHMIS

LABEL(S) FOR SUPPLY



Materials Causing Immediate and Serious Toxic Effect.



Corrosive Material.

CONTROLLED PRODUCT CLASSIFICATION

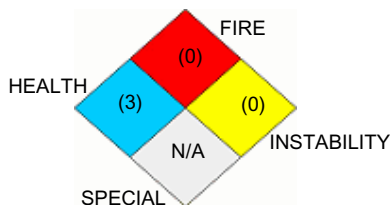
Canadian WHMIS Classification D1A E

16 OTHER INFORMATION

HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

HEALTH	3
FLAMMABILITY	0
PHYSICAL	0
PERSONAL PROTECTION	D

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

BELLACIDE 355

Asia/Pacific countries - +65 3158 1074

For emergencies within China - +86 10 5100 3039

REVISION COMMENTS

Amended MSDS NOTE: Lines within the margin indicate significant changes from the previous revision. Section 14 Revised Transport classification.

ISSUED BY

J.B.

REVISION DATE 13/09/2010

VERSION No. 5

SDS NO. 10795

SAFETY DATA SHEET STATUS

Approved.

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.