

## Product Information

www.wateradditives.com

### Belclene® 400 – Multifunctional Deposit Control Agent for Industrial Water

#### General Product Information

Belclene 400 deposit control agent has been developed as a multifunctional deposit control agent for use in industrial water systems and other related applications.

Belclene 400 has excellent calcium phosphate inhibition and dispersancy properties and also effectively disperses iron oxide fouling. In addition Belclene 400 has very good calcium carbonate inhibition properties.

The active ingredient of Belclene 400 is a phosphino-carboxylic acid copolymer.

#### Typical physical properties

Appearance	Clear to slightly turbid yellow
Odour	Slight
Solids content	Approx. 50% (w/w)
Specific gravity	1.22-1.26
pH (undiluted)	About 2.5
Viscosity at 25%	248-434 cPs (200-350 cSt)
Freezing point range	-12 to -3°C (10-28°F)
Theoretical phosphorus Content (as P)	About 1%
Solubility at 25%:	
Water	Miscible
Ethylene glycol	Miscible
Methanol	Miscible (solution becomes turbid over the concentration range of 5-60%)
50% caustic soda	Miscible

#### Thermal stability (DSC)

Differential scanning calorimetry has shown that Belclene 400 is stable up to a temperature of 300°C (572°F).

#### Chemical reactivity/compatibility

Belclene 400 is not affected by chlorine or other oxidising biocides under normal use conditions. Test for compatibility with long chain nitrogen compounds, aliphatic amines and quaternary compounds.

#### Logistics

Classification	Corrosive for conveyance Not classified for supply IATA class 8 UN 3265 IMDG class 8 UN 3265
Packaging	HDPE 220L XL-ring Mauser drum Height 935mm Diameter 580mm Gross weight 258.5kg Net weight 250.0kg

#### Regulatory approvals

FDA (USA)	21 CFR 176.170 paper/paperboard – fatty foods
	21 CFR 176.180 paper/paperboard – dry foods
USDA (USA)	G5: cooling and retort water G7: boilers, steamlines, cooling
MITI (Japan)	Japanese discharge regulations

#### Toxicology data

Acute or oral LD <sub>50</sub> (rats)	>10000 mg/kg
Eye irritation (rabbits)	Non-irritant (EEC guidelines)
Skin irritation (rabbits)	Non-irritant (EEC guidelines)
Toxicity to fish	
96-hr LC <sub>50</sub> (rainbow trout)	>1000 mg/l
96-hr LC <sub>50</sub> (zebra fish)	>1000 mg/l

#### Ecological data

48-hr EC <sub>50</sub> (daphnia magna)	>1000 mg/l
72-hr EC <sub>50</sub> (algal inhibition)	> 96 mg/l

Further details on safety and handling are available in the materials safety data sheet on this product.

## Patents

BWA Water Additives (BWA) owns or is the licensee of patents and patent applications, which may cover the products and/or uses described in this brochure.

The following are registered trademarks of BWA  
Belclene, Drop and Swirl logo.

® Registered US Patent and Trademark Office.

© 2006 BWA, All rights reserved.

V0506

BWA Water Additives  
Europe and Middle East Region  
2 Brightgate Way, Cobra Court  
Stretford, Manchester M32 0TB  
United Kingdom  
Telephone + 44 161 864 6699  
Fax + 44 161 864 6666

BWA Water Additives  
Americas Region  
1979 Lakeside Parkway, Suite 925  
Tucker, GA 30084  
USA  
Telephone + 1 678 802 3050  
Or 800 600 4523  
Fax + 1 678 802 3024

BWA Water Additives  
Asia Pacific Region  
Telok Blangah East Post Office  
PO Box 129  
Singapore 910901  
Telephone + 65 9758 0554  
Fax + 65 6234 3606

**Visit our website at: [www.wateradditives.com](http://www.wateradditives.com)**

The information contained in this product sheet is based on data available to BWA Water Additives and is thought to be correct. Since BWA, has no control over the use of this information by others, BWA does not guarantee the same results described herein will be obtained, and makes no warranty of merchantability or fitness for a particular purpose or any express or implied warranty. This information is intended for use by technically trained personnel at their discretion and risk. BWA Water Additives UK Limited is a private limited company registered in England and Wales at 2 Brightgate Way, Manchester M32 0TB, Registered No. 5657343

