Water Treatment

North America

Lonza

Industrial Water Treatment

With over 50 years of experience, Lonza is a leading specialty chemical manufacturer and supplier to the global water treatment market. The combination of innovative technologies, patented solid biocide feed systems and thorough application knowledge enables us to deliver leading edge solutions to our customers' most demanding problems.

Our product technologies are used to control the growth of microorganisms such as bacteria, algae and fungi as well as macroorganisms, including mollusks, in a broad array of applications from drinking water to waste water, food and agriculture, industrial cooling, papermaking and related markets. As a leader in solid bromine and chlorine based biocides, Lonza offers cost-effective alternatives to liquid and gas chlorine choices with outstanding performance along with improved handling, storage and stability benefits.

Our wide selection of specialty nitrogen-based algaecides and other non-oxidizing biocides enable customers to select the most appropriate technology to create a treatment program tailored to their specific application. Lonza's extensive portfolio of microbiocidal technologies provides our customers with a full array of customizable solutions to meet their unique water treatment needs.

Product	Water Treatment Industrial	Application Papermaking	Product Description	Active Concentrations %	Product Form	US EPA Registration Nr.
Type: Biocides						
Oxidizing EPA Registered End Use Products						
Dantobrom RW	■	■	Mixed Brominated and Chlorinated Hydantoins	99 %	Briquette	6836-115
Dantobrom RW Granular	■	■	Mixed Brominated and Chlorinated Hydantoins	99 %	Granule	6836-237
Dantochlor RW	■	■	Mixed Chlorinated Hydantoins	97.2 %	Briquette	6836-113
Dantochlor RW Granular	■	■	Mixed Chlorinated Hydantoins	97.2 %	Granule	6836-280
Dantoin BCDMH RW Tablets	■	■	Mixed Brominated and Chlorinated Hydantoins	97.7 %	Tablet	6836-317
Dantoin BCDMH RW Tablets II	■	■	Mixed Brominated and Chlorinated Hydantoins	97.41 %	Tablet	6836-314
Dantoin BCDMH RW Granular	■	■	Mixed Brominated and Chlorinated Hydantoins	97.7 %	Granule	6836-315
Dantoin BCDMH RW Powder	■	■	Mixed Brominated and Chlorinated Hydantoins	97.7 %	Powder	6836-316
MCDMH - EUP	■	–	Chlorinated Hydantoin	98.7 %	Powder	6836-324
Nonoxidizing EPA Registered End Use Products						
Bardac LF18-50 WT	■	–	Dioctyl dimethyl ammonium chloride	50 %	Liquid	6836-60
Bardac LF18-10 WT	■	–	Dioctyl dimethyl ammonium chloride	10 %	Liquid	6836-61
HS-420 (10%) Water Treatment Microbiocide	■	–	Didecyl dimethyl ammonium chloride	10 %	Liquid	47371-146
WTM 1210 Water Treatment Microbicide	■	–	Mixed Alkyl dimethyl benzyl and didecyl dimethyl ammonium chloride	50 %	Liquid	47371-55
WTM-1210 (33%) Microbiocide	■	–	Mixed Alkyl dimethyl benzyl and didecyl dimethyl ammonium chloride	33 %	Liquid	47371-181
205M Water Treatment Microbiocide	■	–	Mixed Alkyl dimethyl benzyl and dialkyl dimethyl ammonium chloride	50 %	Liquid	6836-79
Lonza Water Treatment Microbiocide	■	–	Didecyl dimethyl ammonium chloride	50 %	Liquid	6836-32
Bardac 2250 Microbiocide	■	–	Didecyl dimethyl ammonium chloride	50 %	Liquid	6836-203
Barquat 427-50	■	–	Mixed Alkyl dimethyl benzyl and alkyl dimethyl ethylbenzyl ammonium chlorides	50 %	Liquid	6836-235
Lonza Barquat 1552-40	–	■	Mixed Alkyl dimethyl benzyl and dialkyl methyl benzyl ammonium chlorides	40 %	Liquid	6836-248
Lonza Barquat 1552-50	–	■	Mixed Alkyl dimethyl benzyl and dialkyl methyl benzyl ammonium chlorides	50 %	Liquid	6836-249
Lonza Water Treatment Microbiocide 10	■	–	Mixed Alkyl dimethyl benzyl ammonium chlorides	10 %	Liquid	6836-192
Barquat MB-50 Water Treatment Microbiocide	■	■	Mixed Alkyl dimethyl benzyl ammonium chlorides	50 %	Liquid	6836-214
Barquat MB-10	■	■	Mixed Alkyl dimethyl benzyl ammonium chlorides	10 %	Liquid	6836-58
Isocil RW	■	■	Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	14.63 %	Liquid	6836-239
Isocil RW 5.0	■	■	Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	5.0 %	Liquid	6836-257
Isocil RW 1.5	■	■	Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	1.5 %	Liquid	6836-258

Product	Water Treatment Industrial	Application Papermaking	Product Description	Active Concentrations %	Product Form	US EPA Registration Nr.
Type: Biocides						
EPA Registered Manufacturing Use Products						
Barquat 1552	■	■	Mixed Alkyl dimethyl benzyl and dialkyl methyl benzyl ammonium chlorides	50 %	Liquid	6836-59
JAQ Pwd Quat	■	■	Mixed Alkyl dimethyl benzyl ammonium chlorides	100 %	Powder	47371-28
Barquat MM-551	■	■	Mixed Alkyl dimethyl benzyl ammonium chlorides	55 %	Liquid	6836-201
Isocil	■	■	Mixture of 5-chloro-2-methyl-4-isothiazolin-3-one and 2-methyl-4-isothiazolin-3-one	14.63 %	Liquid	6836-238
Barquat MB-50	■	■	Mixed Alkyl dimethyl benzyl ammonium chlorides	50 %	Liquid	6836-2
Barquat MB-80	■	■	Mixed Alkyl dimethyl benzyl ammonium chlorides	80 %	Liquid	6836-14
Bardac 2250	■	■	Didecyl dimethyl ammonium chloride	50 %	Liquid	6836-51
Bardac 2280	■	■	Didecyl dimethyl ammonium chloride	80 %	Liquid	6836-53
Bardac LF 1850	■	■	Dioctyl dimethyl ammonium chloride	50 %	Liquid	6836-40
Type: Halogen Stabilizers						
Equinox Stabilizer 15	■	■	Dimethyl Hydantoin	15 %	Liquid	NA
Type: Specialty Surfactants						
Uniquat QAC-50	■	■	Mixed Alkyl dimethyl benzyl ammonium chlorides	50 %	Liquid	NA
Uniquat QAC-80	■	■	Mixed Alkyl dimethyl benzyl ammonium chlorides	80 %	Liquid	NA
Uniquat 2250	■	■	Didecyl dimethyl ammonium chloride	50 %	Liquid	NA
Uniquat 2280	■	■	Didecyl dimethyl ammonium chloride	80 %	Liquid	NA

Lonza supplies advanced technologies to the water treatment industry to support the sustainability of water, energy and the protection of critical water management assets.

Bardac® LF 18-50 WT

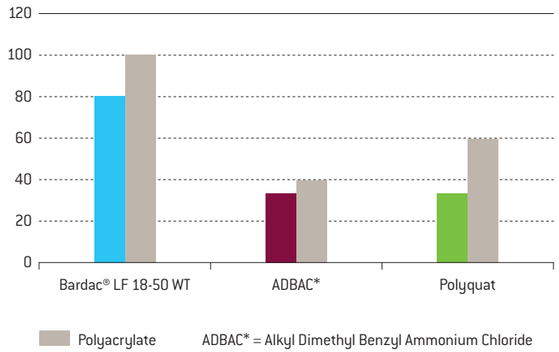
The Cost Effective Solution for Outstanding Algae Control

Bardac® LF 18-50 WT prevents algae growth at low concentrations and regains control of systems where algae have become established. Bardac® LF 18-50 WT is a new quaternary-based algaecide that delivers a unique combination of two key benefits: anionic compatibility and low foam. Bardac® LF 18-50 WT offers important benefits to the water treater.

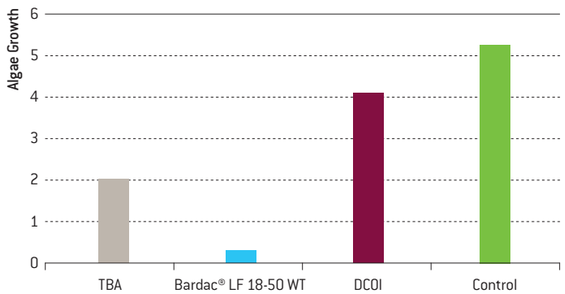
Benefits

- Outstanding Algae Control
- Compatible with Anionics
- Broad Spectrum Efficacy
- Low Foam
- Easy to Use

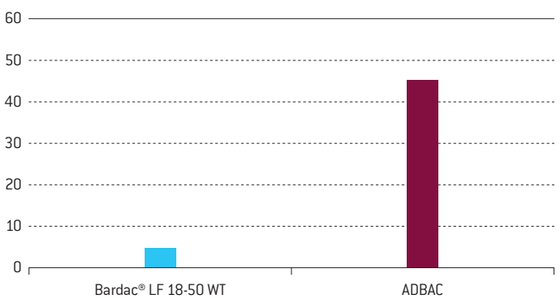
Scale Dispersant Compatibility (% residual)

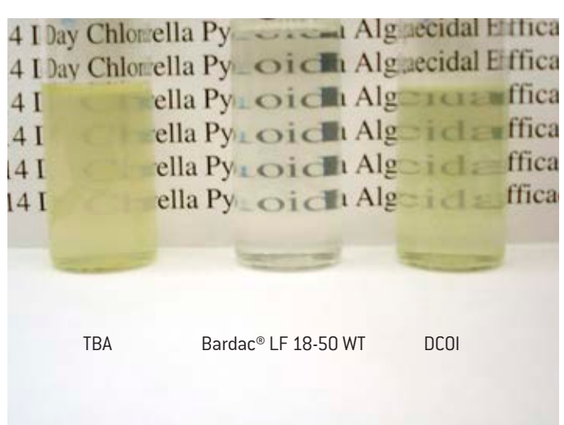


Chlorella Pyrenoidosa Performance Comparison



Foam Generation (cm @ 30 ppm Active)





Dantobrom® RW

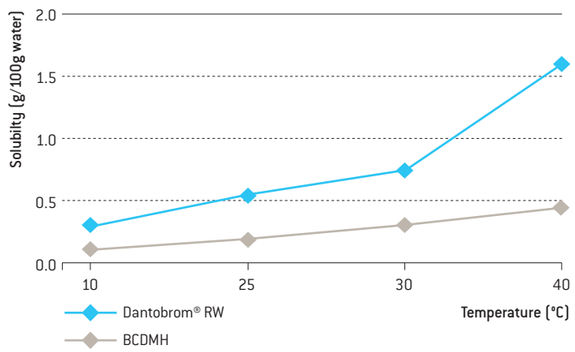
A High Performance, Solid Bromine Biocide for Cost-effective Microbial Control

Dantobrom® RW is a cost-effective broad spectrum bactericide, fungicide, algaecide and molluscicide for a variety of industrial applications. Dantobrom® RW is a unique, solid bromine-based biocide that provides the performance benefits of bromine and higher total halogen content and greater solubility than other solid, bromine biocides, such as BCDMH. Along with its novel hydantoin chemistry, Dantobrom® RW provides a number of key benefits to the user.

Benefits

- Broadens Microbial Control
- Widens Biocide Performance
- Improves Biofilm Control Effectiveness
- Lowers Corrosion Inhibitor Usage
- Reduces Expenditures for other WT Additives
- Improves Handling Safety
- Optimizes Feeding Technique
- Minimizes Inventory Space

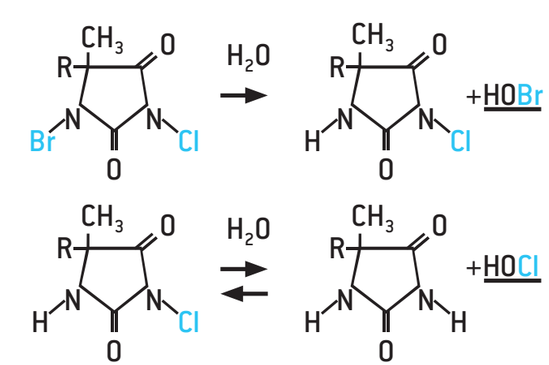
Solubility



Typical Properties

Total Available Halogen	
Expressed as Chlorine, %Cl_2	62.8
Expressed as Bromine, %Br_2	141
Melting Range, powder, (°C)	120 – 148
Solubility in Water (g/100g at 25 °C)	0.54
pH, (1% Slurry at 25 °C)	3.6
Decomposition Temperature (°C)	180
Briquette Wt. (g)	12
Density (g/cm³)	1.6
Bulk Density (kg/m³)	960
Nominal Dimensions (cm)	4.2 × 2.2 × 1.3
Moisture Retention (%) (6 hour soak in water at 25 °C)	7

Dantobrom® RW Halogen Release Mechanism



Dantobrom® RW Chemical Composition

1-bromo-3-chloro-5,5-dimethylhydantoin	54.2%
1,3-dichloro-5, 5-dimethylhydantoin	28.9%
1,3-dichloro-5-ethyl-5-methylhydantoin	15.9%
Inert Ingredients	1.0%

www.lonza.com

Lonza Inc.
90 Boroline Road
Allendale, NJ 07401
Tel: +1 201 316 9200
contact.allendale@lonza.com