



MATERIAL SAFETY DATA SHEET

Belclene 283

1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME Belclene 283
PRODUCT NO. BWA79050
PRODUCT USE Scale/deposit control additive
SUPPLIER BWA Water Additives US LLC
 1979 Lakeside Parkway
 Suite 925
 Tucker
 GA 30084
 TEL (800) 600-4523
 CUSTOMER SERVICE
EMERGENCY TELEPHONE Chemtrec Phone: 1-800-424-9300
IDENTIFICATION No. 3265

2 HAZARDS IDENTIFICATION

POTENTIAL HEALTH EFFECTS

INHALATION

May cause irritation to the respiratory system.

INGESTION

May cause discomfort if swallowed. May cause stomach pain or vomiting.

SKIN CONTACT

Irritating to skin. Not a skin sensitizer.

EYE CONTACT

Irritating to eyes. Risk of serious damage to eyes.

ROUTE OF ENTRY

Skin and/or eye contact. Inhalation. Ingestion.

3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Weight
MALEIC ACID	203-742-5	110-16-7	5-10%
MALEIC ACID COPOLYMER		113221-69-5	30-60%

COMPOSITION COMMENTS

Aqueous solution of maleic acid copolymer.

4 FIRST-AID MEASURES

INHALATION

Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Get medical attention if any discomfort continues.

INGESTION

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Get medical attention.

SKIN CONTACT

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

EYE CONTACT

Rinse the eye with water immediately. Continue to rinse for at least 15 minutes. Contact physician if irritation persists.

5 FIRE-FIGHTING MEASURES

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EXTINGUISHING MEDIA

Use fire-extinguishing media appropriate for surrounding materials. This product is not flammable.

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).

PROTECTIVE MEASURES IN FIRE

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

FLAMMABILITY CLASS

No Uniform Fire Code noted.

6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

Follow precautions for safe handling described in this safety data sheet. Wear protective clothing as described in Section 8 of this safety data sheet.

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.

7 HANDLING AND STORAGE

HANDLING

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

STORAGE

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

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

INGREDIENT COMMENTS

No exposure limits noted for ingredient(s).

PROCESS CONDITIONS

Provide eyewash station.

PROTECTIVE EQUIPMENT



ENGINEERING MEASURES

Provide adequate ventilation.

RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection must be used if the general level exceeds the Recommended Occupational Exposure Limit

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

EYE PROTECTION

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

OTHER PROTECTION

Wear appropriate clothing to prevent repeated or prolonged skin contact.

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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	Liquid
COLOR	Amber
ODOR	Slight
SOLUBILITY	Miscible with water.
BOILING POINT (°C)	100 - 102
MELTING POINT (°C)	<-5
RELATIVE DENSITY	1.165 - 1.185 @ 20 °c
VAPOR PRESSURE	17.5 mmHg @ 20 °c
pH-VALUE, CONC. SOLUTION	<2
VISCOSITY	10 - 25 cSt @ 25 °c
PARTITION COEFFICIENT (N-Octanol/Water)	<0

10 STABILITY AND REACTIVITY

STABILITY

Stable under normal temperature conditions and recommended use.

CONDITIONS TO AVOID

Reacts with alkalis and generates heat. Avoid contact with strong reducing agents. Avoid excessive heat for prolonged periods of time.

MATERIALS TO AVOID

Strong alkalis. Strong reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS

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

11 TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 - LD 50 3874 mg/kg (oral rat)

INHALATION

May cause irritation to the respiratory system.

INGESTION

May cause discomfort if swallowed. May cause stomach pain or vomiting.

SKIN CONTACT

Irritating to skin. Not a skin sensitizer.

EYE CONTACT

Irritating to eyes. Risk of serious damage to eyes.

12 ECOLOGICAL INFORMATION

LC 50, 96 hrs, Fish mg/l >1000

IC 50, 72 hrs, Algae, mg/l 380

DEGRADABILITY

Inherently biodegradable

Chemical Oxygen Demand, 548, 000 mg/l

COD

Acute Toxicity. LC50 96 hours, 2160 Brown Shrimp mg/l

13 DISPOSAL CONSIDERATIONS

WASTE MANAGEMENT

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

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DISPOSAL METHODS

Absorb in vermiculite or dry sand, dispose in licensed hazardous waste. 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



TDG SHIPPING NAME	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (Contains Maleic Acid Copolymer)
DOT PROPER SHIPPING NAME	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (Contains Maleic Acid Copolymer)
TDG SHIPPING NAME IDENTIFICATION No.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (Contains Maleic Acid Copolymer) 3265
DOT HAZARD CLASS	8
TDG PACKING GROUP	III
U.S DOT HAZARD LABEL	Corrosive
UN NO. SEA	3265
IMDG CLASS	8
IMDG PACK GR.	III
EMS	F-A, S-B
MARINE POLLUTANT	No.
UN NO. AIR	3265
AIR CLASS	8
AIR PACK GR.	III
TDG CLASS	8
TDG LABEL(S)	CORROSIVE
TDG PACKING GROUP	III

15 REGULATORY INFORMATION

INVENTORIES

COMPONENT	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
MALEIC ACID	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	Yes
MALEIC ACID COPOLYMER	DSL	Yes	No	Yes	Yes	Yes	Yes	Yes

US FEDERAL REGULATIONS

COMPONENT	SARA 302-TPQ	CERCLA-RQ	SARA 313
MALEIC ACID		5 000 lbs	No
MALEIC ACID COPOLYMER			No

COMPONENT	CAS	CA	FL	MA	MN	NJ	PA	RI
MALEIC ACID	110-16-7	No	No	Yes	No	Yes	Yes	No
MALEIC ACID COPOLYMER	113221-69-	No	No	No	No	No	No	No

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REGULATORY STATUS (US)

This Product is Hazardous under the OSHA Hazard Communication Standard. 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. TSCA: The ingredients of this product are on the TSCA Inventory. 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.

REGULATORY REFERENCES

29 CFR 1910.1010 Federal Regulations (OSHA Standard).

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHIMIS

LABEL(S) FOR SUPPLY



Corrosive
Material.



Materials
Causing Other
Toxic Effects.

CONTROLLED PRODUCT CLASSIFICATION

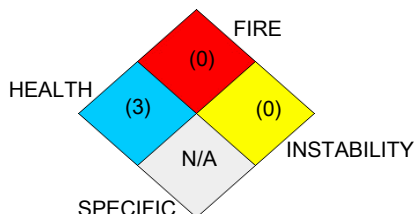
Canadian WHMIS Classification E D2B

16 OTHER INFORMATION

HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

HEALTH		3
FLAMABILITY		0
REACTIVITY		0
PERSONAL PROTECTION		C

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



REVISION COMMENTS

New MSDS

ISSUED BY

G.B.

REVISION DATE

3rd September 2007

VERSION No.

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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.