



## MATERIAL SAFETY DATA SHEET

### Flocon 260

#### 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

<b>PRODUCT NAME</b>	Flocon 260
<b>CHEMICAL NAME</b>	Mixture of organic acids
<b>PRODUCT NO.</b>	BWA F260
<b>SUPPLIER</b>	BWA Water Additives US LLC 1979 Lakeside Parkway Suite 925, Tucker, GA30084. TEL (800) 600-4523 CUSTOMER SERVICE
<b>EMERGENCY TELEPHONE</b>	Chemtrec Phone: 1-800-424-9300
<b>IDENTIFICATION No.</b>	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

Non Irritant Not a Skin Sensitiser

##### EYE CONTACT

Irritating to eyes.

##### HEALTH WARNINGS

Irritating to eyes.

##### ROUTE OF ENTRY

Skin and/or eye contact.

##### TARGET ORGANS

Eyes. Skin.

#### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Weight
PHOSPHONIC ACID DERIVATIVE			5-10%
POLYCARBOXYLIC ACID			10-30%
POLYCARBOXYLIC ACID			30-60%

##### COMPOSITION COMMENTS

Mixture of organic acids The specific chemical identity will be made available to health professionals in accordance with 29 CFR 1910.1200 (1) (2) (3) (4). This Material Safety Data Sheet provides information for employee training and hazard identification. New Jersey Trade Secret Number: BL-5109-P. HMIRC EXEMPTION REGISTRATION NUMBER 7398. FILED 13th August 2008.

#### 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

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.

## Flocon 260

### SKIN CONTACT

Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Contact physician if irritation continues.

### EYE CONTACT

Important! Immediately rinse with water for at least 15 minutes. Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Contact physician if irritation persists.

## 5 FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

Fire can be extinguished using: Dry chemicals, sand, dolomite etc. Carbon dioxide (CO<sub>2</sub>). Foam. 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

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: Nitrogen. Phosphorus. Sulphur. The product is non-combustible. If heated, irritating vapors may be formed.

### 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. 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. Observe good industrial hygiene practices.

### STORAGE

Do NOT use container made of: Carbon steel. Store separated from: Alkalies. 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



### ENGINEERING MEASURES

Provide adequate general and local exhaust ventilation.

## Flocon 260

### RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists. Un programme de protection respiratoire qui repond a des exigences d'OSHA 1910.134 et d' ANZI Z88.2 doit etre suivi toutes les fois que le leiu de travail conditionne la garantie un respirator';utilisation de s.

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

### OTHER PROTECTION

Wear appropriate clothing to prevent repeated or prolonged 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

<b>APPEARANCE</b>	Liquid		
<b>COLOR</b>	Light (or pale) Yellow		
<b>ODOR</b>	Slight odor		
<b>SOLUBILITY</b>	Miscible with water.		
<b>BOILING POINT (°C)</b>	100 - 102	<b>MELTING POINT (°C)</b>	<~-5
<b>RELATIVE DENSITY</b>	1.14 - 1.165 @ 20 °C	<b>VAPOR PRESSURE</b>	17.5 mmHg @ 20 °C
<b>pH-VALUE, CONC. SOLUTION</b>	<2	<b>VISCOSITY</b>	9 - 15 cSt @ 25 °C
<b>PARTITION COEFFICIENT (N-Octanol/Water)</b>	<0		

## 10 STABILITY AND REACTIVITY

### STABILITY

Stable under normal temperature conditions and recommended use.

### CONDITIONS TO AVOID

Reacts with alkalis and generates heat. Avoid excessive heat for prolonged periods of time.

### MATERIALS TO AVOID

Strong alkalies.

### HAZARDOUS DECOMPOSITION PRODUCTS

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

## 11 TOXICOLOGICAL INFORMATION

**TOXIC DOSE 1 - LD 50** 2400 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

Non Irritant Not a Skin Sensitiser

### EYE CONTACT

Irritating to eyes.

### HEALTH WARNINGS

Irritating to eyes.

## 12 ECOLOGICAL INFORMATION

**EC 50, 48 hrs, Daphnia, mg/l** >1000

**IC 50, 72 hrs, Algae, mg/l** >100

### DEGRADABILITY

Not inherently biodegradable

**Flocon 260****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, dispose in licensed hazardous waste. le material liquide devrait etre incinere.L;absorb material sur le sable ou la terre devrait etre debarrasse comme dechets solides selon des reglements locaux.L'emballage vide peut contenir des residues et la consideation du devrait etre donnee avant la disposition.

**14 TRANSPORT INFORMATION**

<b>DOT PROPER SHIPPING NAME</b>	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.(contains polycarboxylic acids and a phosphonic acid)		
<b>IDENTIFICATION No.</b>	3265	<b>NA NO.</b>	UN 3265
<b>DOT HAZARD CLASS</b>	8	<b>DOT PACKING GROUP</b>	III
<b>U.S DOT HAZARD LABEL</b>	Corrosive	<b>UN NO. SEA</b>	3265
<b>IMDG CLASS</b>	8	<b>IMDG PACK GR.</b>	III
<b>EMS</b>	F-A, S-B	<b>MARINE POLLUTANT</b>	No.
<b>UN NO. AIR</b>	3265	<b>AIR CLASS</b>	8
<b>AIR PACK GR.</b>	III	<b>TDG CLASS</b>	8
<b>TDG LABEL(S)</b>	CORROSIVE	<b>DOT PACKING GROUP</b>	III

**15 REGULATORY INFORMATION****INVENTORIES**

COMPONENT	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
PHOSPHONIC ACID DERIVATIVE	DSL	Yes	EINECS					
POLYCARBOXYLIC ACID	DSL	Yes	EINECS	N/A	N/A	N/A	N/A	N/A
POLYCARBOXYLIC ACID	DSL	Yes	EINECS	N/A	N/A	N/A	N/A	N/A

COMPONENT	TSCA 12(b) Export Notification
PHOSPHONIC ACID DERIVATIVE	No
POLYCARBOXYLIC ACID	N/A

**US FEDERAL REGULATIONS**

COMPONENT	SARA 302-TPQ	CERCLA-RQ	SARA 313
PHOSPHONIC ACID DERIVATIVE			No
POLYCARBOXYLIC ACID			No

**CLEAN AIR ACT**

COMPONENT	CAA Accidental Release Prevention
POLYCARBOXYLIC ACID	No

**Flocon 260**

COMPONENT	CAS	CA	FL	MA	MN	NJ	PA	RI
PHOSPHONIC ACID DERIVATIVE		C	Yes	Yes	Yes	Yes	Yes	Yes
POLYCARBOXYLIC ACID		No	No	No	No	No	No	No
POLYCARBOXYLIC ACID		No	No	No	No	No	No	No

**REGULATORY STATUS (US)**

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. TSCA: The ingredients of this product are on the TSCA Inventory.

**REGULATORY REFERENCES**

29 CFR 1910.1010 Federal Regulations (OSHA Standard).

**WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM -WHMIS****LABEL(S) FOR SUPPLY**

Corrosive  
Material.



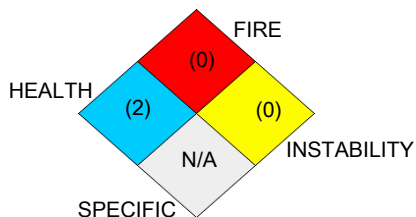
Materials  
Causing Other  
Toxic Effects.

**CONTROLLED PRODUCT CLASSIFICATION**

Canadian WHMIS Classification D2B E

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

HEALTH	2
FLAMMABILITY	0
PHYSICAL	0
PERSONAL PROTECTION	D

**NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)****GENERAL INFORMATION**

Flocon 260 is certified by NSF International for use as an antiscalant in reverse osmosis plants. The maximum approved dose level is 5 mg/l in the feedwater.

Classified as corrosive class 8 for transportation on the basis of its effect on mild steel.

**REVISION COMMENTS**

Amended MSDS

**ISSUED BY**

G.B.

**REVISION DATE**

14th August 2008

**VERSION No.**

2

**SAFETY DATA SHEET STATUS**

Approved.

**DATE**

14th August 2008

## **Flocon 260**

### 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.