



SAFETY DATA SHEET FLOCON® MC20

1. IDENTIFICATION

Product Name	FLOCON® MC20
Chemical Name	Sulfamic acid
Product No.	100536
Identification No.	2967
Identified uses	Membrane cleaner
Supplier	BWA Water Additives US LLC 1979 Lakeside Parkway Suite 925, Tucker, GA30084 USA T: +1 800 600 4523 T: +1 678 802 3050 E: msds@wateradditives.com
Emergency Telephone	Chemtrec Phone: 1-800-424-9300

2. HAZARD(S) IDENTIFICATION

Appearance	Powder
Color	White / off-white.
Odor	Characteristic.
GHS Pictogram	



Signal Word	Warning
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Hazard Statements

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.

Precautionary Statements

P234	Keep only in original container.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P305+351+338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501	Dispose of contents/container in accordance with national regulations.

GHS Classification

Physical and Chemical Hazards	Met. Corr. 1 - H290
Human health	Acute Tox. 4 - H302;Skin Irrit. 2 - H315;Eye Irrit. 2 - H319
Environment	Aquatic Chronic 3 - H412

FLOCON® MC20**WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM - WHMIS****WHMIS Label**

Materials Causing Other
Toxic Effects.

Controlled Product Classification

Canadian WHMIS Classification D2B

Inhalation

Dust may irritate respiratory system or lungs.

Ingestion

Harmful if swallowed. May irritate and cause stomach pain, vomiting and diarrhea.

Skin Contact

Causes burns.

Eye Contact

Causes burns.

Health Warnings

This chemical may cause skin/eye irritation and burns (corrosive).

Route Of Entry

Skin and/or eye contact. Ingestion. Inhalation.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SULPHAMIC ACID	60-100%
CAS No.: 5329-14-6	EC No.: 226-218-8
GHS Classification Met. Corr. 1 - H290; Acute Tox. 4 - H302; Skin Irrit. 2 - H315; Eye Irrit. 2 - H319; Aquatic Chronic 3 - H412	

4. FIRST-AID MEASURES

Description of 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. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Rinse mouth thoroughly. Never give liquid to an unconscious person. Get medical attention if any discomfort continues.

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

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.

Most important symptoms and effects, both acute and delayed**Inhalation**

No specific symptoms noted. Irritation of nose, throat and airway.

Ingestion

Chemical burns. May cause stomach pain or vomiting.

Skin Contact

Chemical burns.

Eye Contact

May cause blurred vision and serious eye damage.

Indication of any immediate medical attention and special treatment needed

FLOCON® MC20

Notes To The Physician

Treat Symptomatically.

5. FIRE-FIGHTING MEASURES

Auto Ignition Temperature (°C)

Not available.

Flammability Limit - Lower(%)

Not applicable.

Flammability Limit - Upper(%)

Not applicable.

Flash point (°C)

Not available.

Extinguishing Media

The product is non-combustible. Use: Water spray, fog or mist. Foam, carbon dioxide or dry powder.

Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

Specific Hazards

The product is non-combustible. If heated, harmful vapors may be formed. Fire or high temperatures create: Vapors/gases/fumes of: Ammonia or amines. Oxides of: Nitrogen. Sulfur.

Special Fire Fighting Procedures

Keep run-off water out of sewers and water sources. Dike for water control.

Protective Equipment For Fire-Fighters

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

Wear protective clothing as described in Section 8 of this material safety data sheet.

Environmental Precautions

Do not discharge into drains, water courses or onto the ground. To prevent release, place container with damaged side up.

Spill Clean Up Methods

Should be prevented from entering drains. 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.

Reference to other sections

For waste disposal, see section 13.

7. HANDLING AND STORAGE

Handling

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

Storage

Store in tightly closed original container in a dry and cool place. Do not store near heat sources or expose to high temperatures. Protect from light, including direct sunrays. Store away from: Acids. Oxidizing material.

Storage Class

Corrosive storage.

Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient Comments

No exposure limits noted for ingredient(s).

Protective Equipment



Process Conditions

Provide eyewash station.

FLOCON® MC20

Engineering Measures

Provide adequate general and local exhaust ventilation.

Provide sufficient ventilation for operations causing dust formation.

Respiratory Equipment

No specific recommendation made, but protection against nuisance dust must be used when the general level exceeds 10 mg/m³.

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.

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

Appearance	Powder
Color	White / off-white.
Odor	Characteristic.
Solubility	Soluble in water.
Melting point (°C)	Not available.
Bulk Density	2 - 2.15 kg/l
pH-Value, Diluted Solution	1 - 2.5 @ 1%
Solubility Value (G/100G H₂O@20°C)	~20g @ 20°C
Decomposition temperature (°C)	Not available.
Odour Threshold, Lower	Not available.
Odour Threshold, Upper	Not available.
Flash point (°C)	Not available.
Auto Ignition Temperature (°C)	Not available.
Flammability Limit - Lower(%)	Not applicable.
Flammability Limit - Upper(%)	Not applicable.
Partition Coefficient (N-Octanol/Water)	Not available.
Explosive properties	Scientifically unjustified. Not available.

10. STABILITY AND REACTIVITY

Reactivity

Reacts with alkalis and generates heat.

Stability

Stable under normal temperature conditions and recommended use.

Hazardous Polymerisation

Will not polymerise.

FLOCON® MC20

Conditions To Avoid

Avoid excessive heat for prolonged periods of time.

Materials To Avoid

Strong alkalis. Strong oxidizing substances. Other metals or alloys.

Hazardous Decomposition Products

None under normal conditions. Fire or high temperatures create: Toxic gases/vapors/fumes of: Ammonia or amines.

Oxides of: Nitrogen. Sulfur.

11. TOXICOLOGICAL INFORMATION

Acute toxicity:

Acute Toxicity (Oral LD50)

1050 mg/kg Guinea Pig

12. ECOLOGICAL INFORMATION

Ecotoxicity

Dangerous for the environment: May cause long-term adverse effects in the aquatic environment.

Acute Toxicity - Fish

LC50 96 hours 70.3 mg/l Pimephales promelas (Fat-head Minnow)

Degradability

The product solely consists of inorganic compounds which are not biodegradable.

Bioaccumulative potential

The product does not contain any substances expected to be bio-accumulating.

Partition coefficient

Not available.

Mobility:

The product is water soluble and may spread in water systems.

Results of PBT and vPvB assessment

Not Classified as PBT/vPvB by current EU criteria.

Other adverse effects

Not available.

13. DISPOSAL CONSIDERATIONS

Waste Management

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

Disposal Methods

Dispose of waste and residues in accordance with local authority requirements.

Material should be incinerated or otherwise disposed of as solid waste in accordance with local regulations.

14. TRANSPORT INFORMATION

UN No. (DOT/TDG)	2967
UN No. (IMDG)	2967
UN No. (ICAO)	2967
DOT Proper Shipping Name	SULFAMIC ACID
TDG Proper Shipping Name	SULFAMIC ACID
DOT Hazard Class	8
DOT Hazard Label	Corrosive
TDG Class	8
IMDG Class	8
ICAO Class	8
Transport Labels	

FLOCON® MC20

DOT Pack Group III
 IMDG Pack Group III
 Air Pack Group III
 Environmentally Hazardous Substance/Marine Pollutant
 No.

IMDG Code Segregation Group 1. Acids.
 EMS F-A, S-B
 Classification Code (Adr) C2

15. REGULATORY INFORMATION

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).

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed.

SARA 313 Emission Reporting

None of the ingredients are listed.

CAA Accidental Release Prevention

None of the ingredients are listed.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed.

Massachusetts "Right To Know" List

None of the ingredients are listed.

Rhode Island "Right To Know" List

All ingredients are listed.

Minnesota "Right To Know" List

None of the ingredients are listed.

New Jersey "Right To Know" List

None of the ingredients are listed.

Pennsylvania "Right To Know" List

None of the ingredients are listed.

International Inventories

EU - EINECS/ELINCS

All ingredients are listed or exempt.

Canada – DSL/NDSL

All ingredients are listed or exempt.

FLOCON® MC20**US - TSCA**

All ingredients are listed or exempt.

US – TSCA 12(b) Export Notification

None of the ingredients are listed.

Australia - AICS

All ingredients are listed or exempt.

Japan – MITI

All ingredients are listed or exempt.

Korea - KECI

All ingredients are listed or exempt.

China - IECSC

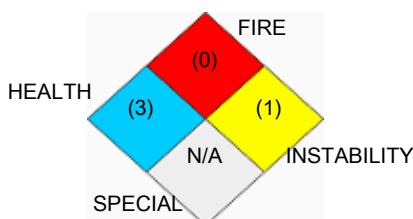
All ingredients are listed or exempt.

Phillippines – PICCS

All ingredients are listed or exempt.

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

HEALTH	3
FLAMMABILITY	0
PHYSICAL	1
PERSONAL PROTECTION	D

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)**General Information**

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

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

Asia/Pacific countries - +65 3158 1074

For emergencies within China - +86 10 5100 3039

Revision Comments

Conversion to GHS (HCS 2012 / WHMIS 2015)

Issued By BWA Water Additives Regulatory Group, +44(0)1618646699**Revision Date** Aug 14, 2012**Revision** 4**Sds No.** 10945**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.