



# SAFETY DATA SHEET

## AS-135

Issue Date: 01 Jan 2016

Revision Date: N/A

### PRODUCT IDENTIFICATION

**Company Product Name:** AS-135

**Other/Generic Names:** FLOCON® 135

**Product Use and Restrictions on Use** Reverse osmosis antiscalant.

**Supplier:** Applied Membranes, Inc.  
2450 Business Park Dr  
Vista, CA 92081

**For More Information Call:** (760) 727-3711  
(Monday-Friday, 8:00am-5:00pm)

**For Emergency Call:** For Chemical Emergency, Spill Leak Fire Exposure or Accident - Call CHEMTREC Day or Night DOMESTIC NORTH AMERICA 800-424-9300 INTERNATIONAL, CALL 703-527-3887 (collect calls accepted)

### HAZARDS IDENTIFICATION

#### **Potential Health Effects:**

**INHALATION:** No specific health warnings noted.

**INGESTION:** May cause discomfort if swallowed. May cause stomach pain or vomiting.

**SKIN CONTACT:** Non Irritant. Not a Skin Sensitizer.

**EYE CONTACT:** Nonirritant.

**HEALTH WARNING:** No specific health warnings noted.

**ROUTE OF ENTRY:** Skin and/or eye contact. Ingestion.

### COMPOSITION/INFORMATION ON INGREDIENT

<u>Ingredient Name</u>	<u>EC No.</u>	<u>CAS Number</u>	<u>Weight %</u>
Organic acid mixture	No data	No data	30-60%

**COMPOSITION COMMENTS:** Mixture of organic acids.

### FIRST AID MEASURES

**SKIN:** Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention promptly if symptoms occur after washing.



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- EYES:** Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Contact physician if discomfort continues.
- 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.

### FIRE FIGHTING MEASURES

**Extinguishing Media:** Use water spray, fog or mist, foam, carbon dioxide or dry powder

**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.

**Protective Measures in Fire:** Leave danger zone immediately.

**Flash Point (°C) :** >93 PM Closed cup.

### ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Follow precautions for safe handling described in this safety data sheet.

**Environmental Precautions:** Avoid release into 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 labeled with correct contents and hazard symbol.

### HANDLING AND STORAGE

**Handling:** Avoid spilling, skin and eye contact. Avoid inhalation of vapors.

**Storage:** Store separated from: Alkalies. Reducing Agents. Do NOT use container made of: Carbon steel. Keep containers tightly closed. Protect against physical damage and/or friction. Store in tightly closed original container in a dry and cool place.



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### EXPOSURE CONTROLS/PERSONAL PROTECTION

#### INGREDIENT COMMENTS

No exposure limits noted for ingredient(s).

#### PROTECTIVE EQUIPMENT



#### ENGINEERING MEASURES

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

#### RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists.

#### 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 provides 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 splashes.



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### PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Colorless liquid.
PHYSICAL STATE:	Liquid.
ODOR:	Slight Odor.
RELATIVE DENSITY(water=1.0)	1.17 – 1.20 @ 20°C
SOLUBILITY IN WATER (weight%)	Miscible in all proportions.
pH VALUE, CONC. SOLUTION:	3.5 – 4.5
VAPOR PRESSURE:	17.5 mm Hg @ 20°C
PARTITION COEFFICIENT (N-OCTANOL/WATER):	<0
VISCOSITY:	35 – 60 cSt @ 25°C
FLASH POINT:	>93 PM Closed cup.

### STABILITY AND REACTIVITY

**STABILITY:** Stable under normal temperature conditions and recommended use.

**CONDITIONS TO AVOID:** Reacts with alkalis and generates heat.

**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: Phosphorus.

### TOXICOLOGICAL INFORMATION

TOXIC DOSE 1 – LD50: > 5000 mg/kg (oral rat)

SKIN: Non Irritant Not a Skin Sensitizer

EYES: Non irritant

INHALATION: No specific health warnings noted.

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

HEALTH WARNINGS: No specific health warnings noted.



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### ECOLOGICAL INFORMATION

**Ecotoxicity:** The following ecotoxicity data is available for AS-135.

Daphnia EC50 48h → 320 mg/L  
 Fish LC50 96h → >1000 mg/L  
 Algae IC50 72h → 130 mg/L

**Degradability:** Not readily biodegradable.

**Chemical Oxygen Demand, COD:** 370,000

### 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.

### TRANSPORT INFORMATION

TRANSPORT NOTES: The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

RAIL TRANSPORT NOTES: Not Classified.

SEA TRANSPORT NOTES: Not Classified.

AIR TRANSPORT NOTES: Not Classified.

DOT HAZARD CLASS: Not Regulated.

US DOT HAZARD LABEL: No DOT label requirement noted.

MARINE POLLUTANT: No.

### REGULATORY INFORMATION

Component	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
Organic Acid Mixture	DSL	Yes						

Component	CAS	CA	FL	MA	MN	NJ	PA	RI
Organic Acid Mixture		No	No	No	No	No	No	No



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### SARA (311/312) HAZARD CATEGORIES

Threshold planning quantity: 10,000 lbs.

### 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

Not Classified According to WHMIS.

#### CONTROLLED PRODUCT CLASSIFICATION

This Product has been classified according to the hazard criteria of the Controlled Products Regulations and the MSDS contains all required information.

### OTHER INFORMATION

#### HMIS RATING

HEALTH	1
FLAMMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	B

Hazard rating: 0 – Minimal; 1 – Slight; 2 – Moderate; 3 – Serious; 4 – Severe



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### GENERAL INFORMATION

AS-135 is certified by NSF International for use as an antiscalant in reverse osmosis plants. The maximum approved dose level is 10 mg/l in the feedwater.

### DISCLAIMER

For safety reasons it is IMPERATIVE that customer:-

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.