SECTION 1 - IDENTIFICATION: PRODUCT IDENTIFIER AND COMPANY INFORMATION

Product name	DamClear FlocBloc FB-4308
Product code	FB-4308 (formerly AN1)
Product use	Clarification aid for water treatment
Company name	Hydroflux Utilities Pty Ltd trading as Environmental Warehouse Level 26, 44 Market Street SYDNEY NSW 2000 www.envirowarehouse.com.au e: info@hydrofluxutilities.com.au t: 61 2 9089 8833 f: 61 2 9089 8830
Emergency number	13 11 26 (Poison Information Hotline)

SECTION 2 - HAZARD IDENTIFICATION

HAZARDS

- Not classified with any physical, health or environmental hazards in accordance with the GHS.
- No hazard statements required in accordance with the GHS.

LABEL ELEMENTS

Pictogram	Not required
Signal word	Not required

PRECAUTIONARY STATEMENTS

- No precautionary statements (to accompany hazard statements) required in accordance with the GHS.

SECTION 3 - COMPOSITION AND INFORMATION ON INGREDIENTS

DESCRIPTION: High molecular weight anionic acrylamide-based copolymer blended with an inert carrier agent.

INGREDIENTS

Chemical name	CAS No.	Proportion, %
Ingredients not deemed to be hazardous	-	to 100

SECTION 4 - FIRST AID MEASURES

GENERAL ADVICE

- Take appropriate precautions to ensure your own health and safety before providing first aid.
- If a doctor or paramedic is consulted, provide them with this Safety Data Sheet.

SKIN

- Remove all contaminated clothing and footwear.
- Flush affected area with large volumes of fresh running water.
- Continue flushing until the area no longer feels greasy or slippery.
- If redness, irritation, swelling or blistering occurs, seek medical attention without delay.

EYE

- Immediately wash out affected eye and surrounding area with fresh running water.
- Ensure complete irrigation of the eye - keep eyelids apart and away from eye, move eyes up, down and to either side while irrigating.
- Continue irrigating for at least 15 minutes. If the eye area still feels greasy or slippery, or it feels as though it still contains dust or a foreign object, continue to irrigate.
- If irritation or discomfort occurs after complete irrigation, seek medical attention without delay.

SWALLOWED

- If swallowed do NOT induce vomiting.
- If conscious, washout mouth and give water to drink.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.
- If reflexive vomiting occurs, rinse mouth and repeat administration of water.
- If swallowed and patient begins to feel unwell, seek medical attention without delay.

INHALED

- Immediately remove patient to fresh air.
- Lay patient down, keep warm and rested.
- If symptoms develop, seek medical advice.

NOTES TO DOCTOR OR PARAMEDIC

- This product will gel when moistened or mixed with water.
- Ingestion of this product may form a jelly-like mass which could result in an intestinal obstruction.
- Treat symptomatically.

SECTION 5 - FIREFIGHTING MEASURES

FIRE HAZARD

- This product is not combustible.
- This product may decompose under fire conditions to produce oxides of carbon and nitrogen.

HAZCHEM CODE

- None assigned.

EXTINGUISHING MEDIA

- Use extinguishing media suitable for (burning) materials in the surrounding fire.
- This product does not create any restrictions for type of extinguishers or firefighting agents.
- NOTE: water in contact with this product may cause the wet area to become slippery. The wet area could then pose a slip hazard. Use grit, soil or sand to mitigate this hazard.

PRECAUTIONS FOR FIREFIGHTERS AND SPECIAL PROTECTIVE EQUIPMENT

- In case of fire, wear a liquid-tight chemical protective suit with breathing apparatus.
- Wear chemical resistant gloves and chemical resistant boots.
- Water in contact with this product may cause slippery floor conditions.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS

- Restrict access to area until clean-up operations are complete.
- Avoid contact with skin and eyes.
- Use personal protective equipment recommended in Section 8 of this Safety Data Sheet.
- Spills may become slippery when wet, take care not to walk in spilled product.

MINOR SPILLS

- Prevent further leakage or spillage if safe to do so.
- Slippery when wet - do not wash with water.
- Clean up all spills immediately.
- Use a vacuum or dustpan & broom. Avoid generating dust during this operation.
- Wipe remaining area with a damp cloth to collect any residual particles or dusts.

MAJOR SPILLS

- Alert Fire Brigade and tell them the location and nature of hazard.
- Show this Safety Data Sheet to the Fire Crew in attendance.
- Prevent spillage from entering drains or water ways. Spilled product may pose a risk to the aquatic ecosystem if released. If contamination of drains or waterways occurs, advise Emergency Services.
- Slippery when wet - do not wash or flush away with water.
- Sweep and shovel, or vacuum up and place into labelled containers suitable for disposal. Avoid generating dust during this operation.

SECTION 7 - HANDLING AND STORAGE

HANDLING

- Eliminate personal contact. Do not get in eyes, on skin, or on clothing.
- Wear protective clothing recommended in Section 8 of this Safety Data Sheet when risk of exposure may occur.
- Avoid generating dust.
- Keep the containers closed when not in use.
- Ensure all containers are labelled.
- Have emergency equipment (for fires, spills, etc.) readily available.

STORAGE CONDITIONS

- Store in suitable labelled containers.
- Store the containers tightly closed.
- Store separately from oxidizers.
- Store in a cool, dry, well-ventilated area.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

OCCUPATIONAL EXPOSURE STANDARDS

- None assigned.

ENGINEERING MEASURES

- None assigned.

EXPOSURE CONTROL MEASURES

- Wear personal protective clothing including gloves.

PERSONAL PROTECTION

We recommend as a minimum precaution the use of safety glasses with side-shields and work clothes protecting arms, legs and body, fully enclosed safety boots and gloves.

Respiratory Protection

- Respiratory protection is not normally needed.

Hand Protection

- Nitrile gloves, Viton gloves, PVC gloves, cloth gloves, rubber gloves.

Skin Protection

- Wear personal protective clothing including gloves.

Eye Protection

- At a minimum wear safety glasses with side-shields.

Hygiene Recommendations

- Use good work and personal hygiene practices to avoid exposure.
- Always wash and clean yourself thoroughly after handling this and other chemicals.
- If clothing is contaminated, remove clothing and discard or launder. Launder contaminated clothing separately and before reuse.
- When handling this product never eat, drink or smoke.

ENVIRONMENTAL EXPOSURE CONTROL PRECAUTIONS

- None assigned.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Form	Solid
Appearance	Opaque to white
Odour	Nil
pH	6–8 (0.1% w/v solution)
Melting point	No data available
Flash point	Not flammable
Explosive limits	Not flammable
Bulk density	1.1 g/cm^3
Solubility in water	Dispersible

SECTION 10 - STABILITY AND REACTIVITY

STABILITY

- Stable under normal conditions.
- Hazardous polymerization will not occur.

CONDITIONS TO AVOID

- Extremes of temperature.
- Moisture and high humidity.

MATERIALS TO AVOID

- Addition of water results in gelling (this product is designed to be placed in flowing water).
- Oxidising material.
  - » Contact with strong oxidizers (e.g. chlorine, hypochlorites, peroxides, chromates, nitric acid, perchlorates, permanganates etc.) may generate heat, fires, explosions, and toxic vapours.

HAZARDOUS DECOMPOSITION PRODUCTS

- Under fire conditions: Oxides of carbon and nitrogen.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity	LD_{50} Oral	rat	> 5,000 mg/kg
	LD_{50} Dermal	rat	> 5,000 mg/kg
	LC_{50} Inhalation	no information available	
Skin corrosion/irritation	No information available		
Serious eye damage/irritation	No information available		
Respiratory sensitisation	No information available		
Skin sensitisation	No information available		
Germ cell mutagenicity	No information available		
Carcinogenicity	Not classified as a human carcinogen		
Reproductive toxicity	No information available		
STOT - single exposure	No information available		
STOT - repeated exposure	No information available		
Aspiration hazard	No information available		

SECTION 12 - ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION

Acute Toxicity - Fish

Species	Exposure	LC_{50}
Danio rerio	96 hour	> 100 mg/L

Acute Immobilisation - Invertebrate Species

Species	Exposure	EC_{50}
Daphnia magna	48 hour	> 100 mg/L

- The immediate effects on aquatic organisms of this product are due to localised and non-systemic modes of action, e.g. suffocation or immobilization. These effects are quickly and significantly reduced by the presence of suspended material in the aquatic environment.

This product contains less than 50% by weight of an anionic polyelectrolyte copolymer made from the constituent monomers of acrylamide and sodium acrylate. The U.S. EPA conclude that this class of anionic polyelectrolyte copolymer show consistently low toxicity values towards fish and aquatic invertebrates, with LC_{50} values greater than 100 mg/L.

PERSISTENCE AND DEGRADABILITY

- This product is not expected to undergo hydrolysis.
- This product is not readily biodegradable.
  - » High molecular weight anionic polyacrylamides do not degrade via hydrolysis and will resist degradation by microbial activity. These polyacrylamides will degrade by photolysis (the action of UV light) to produce lower molecular weight molecules which can be degraded by microbial activity.
  - » In the environment a combination of photolysis and microbial activity will lead to the degradation of this anionic polyacrylamide over time periods expected to exceed 28 days.

BIOACCUMULATION POTENTIAL

- The copolymers of this formulation are extremely large molecular structures that cannot transport across the cellular membrane, hence the potential to bioaccumulate is considered negligible.
- Anionic polyacrylamides are soluble in water and show negligible solubility in organic solvents. For this reason they exhibit a small octanol/water partition coefficient (K_{OW}) with a log K_{OW} value that approaches zero. This means the potential to bioaccumulate based on log K_{OW} is considered low.

MOBILITY IN SOIL

- This product is eliminated from the water phase (> 90 %) via adsorption on suspended material.

SECTION 13 - DISPOSAL CONSIDERATIONS

- Dispose of in accordance with local, state and federal regulations.
- Dispose of wastes in an approved waste treatment/disposal site in accordance with applicable regulations.
- Do not dispose of wastes in local sewer or with normal garbage.
- Can be placed in landfill, when in compliance with local regulations.
- Do not reuse empty container for any purpose except to store this chemical.

SECTION 14 - TRANSPORT INFORMATION

Not classified as a dangerous good - Australian Code for the Transport of Dangerous Goods by Road & Rail.

UN number	-
Proper shipping name	-
Transport hazard class	-
Subsidiary hazard	-
Packing group number	-
Hazchem code	-
EPG	-

SECTION 15 - REGULATORY INFORMATION

Safe Work Australia	»	This Safety Data Sheet (SDS) has been prepared in accordance with the Model Work Health and Safety Regulations 2021 (Safe Work Australia).
GHS	»	The hazards of this product (Section 2 of this SDS) are classified in accordance with the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).
AICIS	»	All ingredients in this product comply as per the Australian Industrial Chemicals Introduction Scheme (AICIS).
AIIC	»	All ingredients in this product are either listed or are exempt from listing in the Australian Inventory of Industrial Chemicals (AIIC).
POISON Schedule	»	Not scheduled as part of the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

SECTION 16 - OTHER RELEVANT INFORMATION

Revision date	11 July 2022
Revision number	1.0
Information sources	» Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice, July 2020 (Safe Work Australia). » Australian Code for the Transport of Dangerous Goods by Road & Rail, Edition 7.7. 2020. » Safety Data Sheets from our suppliers of raw material. » Poisons Standard June 2022 - Australian Government *Therapeutic Goods Act 1989.* » Model Work Health and Safety Regulations, 1 January 2021 (Safe Work Australia). » Hazardous Substance Information System (Safe Work Australia). » Globally Harmonised System of Classification and Labelling of Chemicals (GHS) 7th Edition, United Nations 2017. » U.S. EPA - Environmental Assessment of Polymers Under The U.S. Toxic Substances Control Act. Robert S. Boethling, J. Vincent Nabholz. 1996. » U.S. EPA - Interpretive Assistance Document for Assessment of Polymers for Sustainable Futures Summary Assessment. June 2013.

Acronyms and abbreviations

AICIS	Australian Industrial Chemicals Introduction Scheme.
AIIC	Australian Inventory of Industrial Chemicals.
CAS No.	Chemical Abstracts Service registration number (sometimes referred to as CASRN).
EC_{50}	Half maximal effective concentration. A statistically derived value giving the median concentration of material in an environment expected to cause 50% of the test population to experience the given effect being monitored (i.e. immobilisation, imbalance etc.).
EPG	Emergency Procedure Guide - Transport: Australian Standards AS 1678 (series).
GHS	Globally Harmonised System of Classification and Labelling of Chemicals (United Nations).
g/cm^3	Grams per cubic centimetre.
Hazchem code	Hazchem Emergency Action Code (also known as an Emergency Action Code or EAC). A British Fire Service code system to provide immediate action advice to emergency services when attending an incident involving dangerous goods.
K_{OW}	Octanol/water partition coefficient. Provides data on the tendency of a chemical to partition itself between a non-polar solvent (octanol) and a polar solvent (water). This information is used to estimate the bioaccumulation potential of the chemical. A value ≥4 for log K_{OW} indicates the chemical has a potential to bioaccumulate (GHS 7th Edition, A9.2.3.4, p 453).
LC_{50}	Lethal concentration, 50%. The concentration of material (in air or water) that will cause 50% of the test population to perish.
LD_{50}	Lethal dose, 50%. The quantity of material when administered all at once that will cause 50% of the test population to perish.
mg/kg	Milligrams per kilogram.

Acronyms and abbreviations

mg/L	Milligrams per litre.
pH	A scale used to express the acidity or basicity of dilute water solutions. pH is defined as the negative logarithm of the hydronium ion (H_3O^+) activity in water-based solutions. Practical application of pH best suited to aqueous solutions with an ionic strength < 0.1 moles/kilogram and a pH between 1 – 13.
PVC	Polyvinyl chloride.
Rev	Revision.
SAR	Structure activity relationship. A modeling method relating chemical structure to biological activity that is used to predict and characterise chemical toxicity.
SDS	Safety Data Sheet.
STEL	Short term exposure limit. The 15-minute time-weighted average airborne concentration of the substance under consideration.
STOT	Specific target organ toxicity.
SUSMP	Standard for the Uniform Scheduling of Medicines and Poisons (Poisons Standard - Australia).
TWA	Time-weighted average. The 8-hour time-weighted average airborne concentration of the substance under consideration.
UN	United Nations (number). United Nations Committee of Experts on the Transport of Dangerous Goods.
U.S. EPA	United States Environmental Protection Agency.
UV	Ultraviolet (light or radiation). A part of the spectrum of electromagnetic radiation emitted by the sun that can cause chemical bonds to break through ionisation.
w/v	Weight/volume.
>	Greater than.

The information contained in this Safety Data Sheet is based on our best present knowledge and experience. It is intended to convey information about the chemical health and safety hazards of our product for health and safety reasons only. The data is not a guarantee of specific properties of this product.

This product is to be used in applications consistent with our product literature.

Individuals handling this product should be informed of the recommended safety precautions and should have access to this information.

For any other uses, exposures should be evaluated so that appropriate handling practices and training programs can be established to ensure safe workplace operations.