F-20 Enviro-Clear Material Data Safety Sheet (MSDS)

Diversified Waterscapes, Inc. urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals that are experts in ventilation, toxicology and fire prevention; as necessary or appropriate to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety (2) furnish this same information to each of its customers for the product (3) request its customers to notify their employees, customers and other users of the product of this information.

Section 1 – Chemical Product & Company Identification

Trade Name:	Formula F-20 Enviro Clear	Revision Date: 06/01/2011
Product Description:	Flocculation Agent	
Chemical Family:	Cationic	
Manufactured for:	Diversified Waterscapes, Inc.	
Street Address, City & State:	27324 Camino Capistrano Suite 213, Laguna Niguel, CA 92677-1118	
For Technical Support:	949-582-5414	
For Chemical Emergency Only:	800-424-9300	

Section 2 – Composition/Information on Ingredients

CAS#	Content	Chemical Name
64742-47-8	15.0 – 40.0 %	Distillates (petroleum), hydrotreated light
69418-26-4	35.0 – 45.0 %	Ethanaminium, N, N, N-trimethyll-2-[1-oxo-2-propenyl)oxy-chloride, polymer with 2-propenamide
68131-40-8	1.0 – 5.0 %	Alcohols, C11-15 secondary, ethoxylated

Section 3 – Hazards Overview

Emergency Overview:	CAUTION:	This Product is an eye and skin irritant. Contains petroleum distillates and prolonged contact with mists may cause skin, eye and respiratory tract irritation. Continued overexposure may cause headache and dizziness. Ingestion may cause lung complications.
	Caution:	Slippery when wet!
Primary Routes of Exposure:		Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route for entry for liquefied gases.
Carcinogenicity:		None of the components in this product at concentrations greater than 0.1% are listed by IARC; NTP; OSHA or ACGIH as a carcinogen.
Signs and Symptoms of Overexposure:		Eye irritation, skin irritation, CNS depression.

Section 4 – First Aid Measures

FIRST AID PROCEDURES

General Advice:	Immediately remove contaminated clothing.
If Ingestion:	Immediately rinse mouth and then drink plenty of water, do not induce vomiting, seek medical attention. Never induce vomiting or give anything by mouth if the victim is unconscious or having convulsions.
Eye Contact:	Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.
Skin Contact:	Wash affected areas thoroughly with soap and water. Seek medical attention.
Inhalation:	If difficulties occur after vapor/aerosol has been inhaled, remove to fresh air and seek medical attention.
Note to physician:	Treat according to symptoms (decontamination, vital function), no known specific antidote.

Section 5 – Fire & Explosion	
Flash Point:	> 93 ° C
Extinguishing media:	Dry powder, foam, water spray.
Unsuitable Extinguishing media: for Safety Reasons	Water jet
Additional Information:	If water is used, restrict pedestrian and vehicular traffic in area where slip hazard may exist.
Hazards during Fire-Fighting:	Harmful Vapors. Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire. Spilled product is slippery underfoot. Very slippery when wet.
Special fire fighting protective equipment:	Wear a self-contained breathing apparatus
Further Information:	The degree of risk is governed by the burning substance and the fire conditions. Contaminated extinguishing water must be disposed of in accordance with official regulations.

Section 6 – Accidental Release Measures	
Personal Precautions:	Use personal protective clothing. Keep people away and stay on the upwind side.
Environmental Precautions:	Do not discharge into drains/surface waters/groundwater.
Methods for Clean-Up:	Spills should be contained solidified, and placed in suitable containers for disposal.

Section 7 - Handling and Storage	
HANDLING	
General Advice:	Keep away from sources of ignition – No smoking.
Protection against fire and explosion:	Take precautionary measures against static discharges.
STORAGE	
General Advice:	Keep container tightly closed and dry; store in a cool place.
Storage Stability:	Avoid extreme heat. Avoid freezing.
Temperature Tolerance:	Avoid freezing.

Section 8 – Exposure Controls, Personal Protection	
Respiratory Protection:	Wear a NIOSH-certified (or equivalent) organic vapor/particulate respirator.
Body Protection:	Impermeable protective clothing.
Eye Protection:	Tightly fitting safety goggles (chemical goggles) and face shield.
Hand Protection:	Chemical resistant protective gloves.
General safety and hygiene measures:	Handle in accordance with good industrial hygiene and safety practice.

Section 9 – Physical Data	
State of Matter:	Liquid
Form:	Emulsion
Odor:	Mineral, Oil-Like
Color:	Cream, Almost White
pH value:	approx. 4
Density:	approx. 1.0 g/cm3 (20° C)
Viscosity, dynamic:	1,000 – 1,500 mPa.s
% Volatiles:	23.9%
Solubility in water:	dispersible
Miscibility with water:	of low solubility

Section 10 – Stability and Reactivity	
Conditions to avoid:	Avoid extreme temperatures. Avoid freezing. Avoid all sources of ignition: heat, sparks, open flame.
Substances to avoid:	Reactive chemicals.
Hazardous reactions:	No hazardous reactions when stored and handled according to instructions. The product is chemically stable.
Decomposition products:	No hazardous decomposition products if stored and handled as prescribed/indicated.

Section 11 - Toxicology Information	
ACUTE TOXICOLOGY	
Oral: Type of value: LD50 Species: rat Value: >2,000 mg/kg The product has not been tested. The statement has been derived from the properties of the individual components.	Eye: Species: rabbit Result: Irritant
Irritation/corrosion:	Aspiration Hazard: No aspiration hazard expected.

Section 12 – Ecology Information	
Aquatic Toxicity:	*The hydrolysis products are not acutely harmful to aquatic organisms. Acute effects on aquatic organisms are due to cationic charge of the polymer, which is quickly neutralized in natural water courses by irreversible adsorption onto particles, hydrolysis and dissolved organic carbon. Fish toxicity and aquatic toxicity are drastically reduced by rapid irreversible adsorption onto suspended and/or dissolved organic matter.*
Fish:	Acute – Oncorhynchus mykiss/LC50 (96h): 10-100 mg/l (under static conditions in the presence of 10mg/L humic acid). The product has not been tested. The statement has been derived from products of a similar structure or composition.
Aquatic Invertebrates:	Acute: - daphnia/eC50 (48h): 10-100mg/l (under static conditions in the presence of 10 mg/L humic acid).
Degradability/Persistence Hydrolysis:	*Information on: cationic polyacrylamide* *In contact with water the substance will hydrolyse rapidly.*
Environmental Mobility:	*Information on: cationic polyacrylamide* *Assessment transport between environmental compartments: Adsorption to solid soil phase expected.*

Section 13 – Disposal Considerations	
Waste Disposal of Substance:	Dispose of in accordance with national, state, and local regulations. Do not discharge into drains/surface waters/groundwater.
Container Disposal:	Recommend crushing, puncturing or other means to prevent unauthorized use of used containers. Dispose of in accordance with national, state, and local regulations.
RCRA:	Not a hazardous waste under RCRA (40 CFR 261).

Section 14 – Transport Information	
Land Transport: **USDOT**	Not classified as dangerous goods under transport regulations.
Sea Transport: **IMDG**	Not classified as dangerous goods under transport regulations.
Air Transport: **IATA/ICAO**	Not classified as dangerous goods under transport regulations.
Further Information: This product is considered to be an oil per the definitions in 49 CFR 130.2. If packed in a container with a capacity of 3,500 gallons or more, the Communication Requirements at 49 CFR 130.11 and the Response Plan Requirements at 49 CFR 130.31 and 130.33 apply to Domestic transportation by motor vehicles and rolling stock. Notification of releases to the National Response Center (NRC), 800-424-8802, may be necessary. In the Washington, DC metropolitan area, call 202-426-2675.	

Section 15- Regulatory Information

FEDERAL REGULATIONS

Registration Status: Chemical TSCA, US released/listed

OSHA hazard category: This material is classified as hazardous under OSHA regulations.

EPCRA 311/312 (Hazard categories): Acute;

CERCLA RQ	CAS Number	Chemical name
5000 LBS	79-06-1; 124-04-9	acrylamide; adipic acid
1000 LBS	1310-73-2	Sodium Hydroxide

STATE REGULATIONS

State RTK	CAS Number	Chemical name
MA, NJ, PA	64742-47-8	Distillates (petroleum), hydrotreated light

Section 16 – Other Information

NFPA Hazard codes:

Health: 2 Fire:1 Reactivity: 0 Special: -

HMIS III rating:

Health: 2 Flammability: 1 Physical Hazard: 0

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on-the-spot alert to the hazard of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

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