

Revision Date: 23-April-2012

Replaces: N/A

Section 1 - Chemical Product and Company Identification

Emergency Response No. (800) 255-3924 (ChemTel)

Product/Chemical Name: Entegrate FR 7170

Product Description/Use: Anionic polyacrylamide in water-in-oil emulsion

Company: U.S. Water Services
330 South Cleveland Street
Cambridge, MN 55008

Section 2 - Composition/Information on Ingredients

Component	CAS No.	% (w/w)	OSHA (PEL)	ACGIH (TLV)
Ammonium chloride	12125-02-9	10 – 15	10 mg/m ³ Fume. (TWA) 20 mg/m ³ (STEL)	10 mg/m ³ fume (TWA) 20 mg/m ³ fume (STEL)

Product contains one or more of the following ethoxylated alcohols at maximum total concentration of: 3.1%

C12-C14 Alcohol ethoxylated	68439-50-9	~0 - 3.1	Not established	Not established
Alcohols (C12-16), ethoxylated	68551-12-2	~0 - 3.1	Not established	Not established
Alcohols (C10-16), ethoxylated	68002-97-1	~0 - 3.1	Not established	Not established
Petroleum distillate hydrotreated light	64742-47-8	~ 20 - 28	No OSHA limits; Recommend: TWA 1200 mg/m ³ (165 ppm) for vapor.	(hud)

Section 3 - Hazards Identification

Potential Health Effects

Primary Entry Routes: Eye and Skin Contact

Acute Effects: May cause eye and skin irritation

Eye: May cause eye irritation.

Skin: May cause skin irritation. Repeated or prolonged contact may cause skin damage.

Inhalation: Not expected to be harmful by inhalation.

Ingestion: Accidental ingestion under normal use conditions is not expected to be harmful.

Carcinogenicity: This product contains no known or suspected carcinogens

Medical Conditions Aggravated by Long-term Exposure: None known

Chronic Effects: Prolonged skin contact may de-fat the skin and produce dermatitis.

HMIS

Health	1 Slight Hazard
Flammability	1 Slight Hazard
Physical Hazard	0 Stable
PPE	B Goggles & Gloves

Material Safety Data Sheet

Product: ENTEGRATE FR 7170

Section 4 - First Aid Measures

Eye Contact: Rinse immediately with plenty of water for at least 15 minutes.

Skin Contact: Do not reuse contaminated clothing without laundering. Wash immediately with plenty of water. Remove contaminated clothing and shoes without delay. Get medical attention if pain or irritation persists after washing or if signs and symptoms of overexposure appear.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

Ingestion: Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person. If swallowed, call a physician immediately.

Section 5 - Fire-Fighting Measures

Flash Point: >200 °F

Burning Rate: Not available

Auto-ignition Temperature: Not available

Lower Flammability Limit (In Air, %): Not determined

Upper Flammability Limit (In Air, %): Not determined

Extinguishing Media: Use water spray, carbon dioxide or dry chemical.

Unusual Fire or Explosion Hazards: None known

Hazardous Combustion Products: Thermal decomposition, as under fire conditions, may produce oxides of carbon, nitrogen, and other potentially hazardous compounds.

Fire-Fighting Instructions: Use water, Water spray, Foam, CO₂, Dry powder. Spills produce extremely slippery surfaces.

Fire-Fighting Equipment: Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection). Firefighters, and others exposed, wear self-contained breathing apparatus.

Special Hazards: Keep containers cool by spraying with water if exposed to fire.

Section 6 - Accidental Release Measures

Spill/Leak Procedures: Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

Methods For Cleaning Up: Dike area if necessary to prevent spill from spreading or entering sewers and waterways. Recover as much as possible then absorb remainder with inert material. Place into closed container for disposal.

Regulatory Requirements: Do not contaminate water. Dispose of in accordance with all federal, state, and local environmental laws and regulations.

Section 7 - Handling and Storage

Handling Precautions: Follow good industrial hygiene and housekeeping practices. Avoid contact with skin and eyes. When preparing working solution ensure there is adequate ventilation. For Industrial Use Only!

Storage Requirements: Keep away from children. Store in cool (5 - 27 °C 41 - 80.6 °F), dry area. Keep away from children. Do not store near extreme heat or in direct sunlight. Protect from freezing. To avoid product degradation and equipment corrosion, do not use iron, copper or aluminum containers or equipment.

Regulatory Requirements: Store in properly labeled container in accordance with all local, state and federal guidelines.

Section 8 - Exposure Controls/Personal Protection

Engineering Controls: Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

Administrative Controls: No recommendations.

Material Safety Data Sheet

Product: ENTEGRATE FR 7170

Respiratory Protection: Not required under normal use conditions. If needed, use MSHA/NIOSH approved respirator for dusts and mists. Seek professional advice prior to respirator selection and use. Follow all requirements of OSHA respirator regulations (29 CFR 1910.134).

Eye Protection: Wear chemical safety goggles or protective glasses with splash shields, per OSHA eye-and face-protection regulations (29 CFR 1910.133). Contact lenses are not recommended when handling any chemical product as they may trap chemicals that get in the eye, thus increasing the risk of eye damage.

Skin Protection: Wear protective gloves and protective clothing if splashing or repeated contact with solution is likely.

Safety Stations: Make emergency eyewash stations, safety/quick-drench showers, and washing facilities available in work area.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and personal protective equipment.

General Hygiene: Do not eat, drink or smoke in the work area. Wash hands thoroughly before eating, drinking, smoking, chewing, or using the restroom facility.

Section – 9 Physical and Chemical Properties

Color: white

Appearance: viscous liquid

Odor: hydrocarbon

Boiling Point: Aqueous phase ~100 C; Oil phase ~175 C

Melting Point: -35 °C -31 °F

Vapor Pressure: Not available

Specific Gravity/Density: ~8.4 - 8.7lb/gal

Vapor Density: Similar to water

Percent Volatile (% by wt.): 58 - 70

pH: 6 – 8 (upon dilution in water)

Saturation In Air (% By Vol.): Not available

Evaporation Rate: <1 (Butyl acetate = 1)

Solubility In Water: Limited by viscosity

Volatile Organic Content: Not available

Flash Point: >93 °C 200 °F

Flammable Limits (% By Vol): Not available

Autoignition Temperature: Not available

Decomposition Temperature: Not available

Partition coefficient (noctanol/ water): Not available

Odor Threshold: Not available

Section 10 - Stability and Reactivity

Stability: Product stable under normal storage and use conditions.

Polymerization: Hazardous polymerization will not occur.

Chemical Incompatibilities: Strong oxidizing agents. This material reacts slowly with iron, copper and aluminum, resulting in corrosion and product degradation.

Conditions to Avoid: Avoid extreme temperatures. Chemical incompatibilities.

Hazardous Decomposition Products: Ammonia (NH₃), Carbon dioxide, Carbon monoxide (CO), oxides of nitrogen

Section 11 - Toxicological Information

Toxicity:

Skin: When this product was tested in rabbits for skin irritation under occlusive conditions, as would be produced if the product was spilled into boots, irreversible skin damage was produced. When the product was tested under non-occlusive conditions with 24 hours of skin contact, as would occur when product was spilled on clothing, some eschar formation was observed but the overall skin irritation score was lower (2.2 moderately irritating).

Oral: The acute oral (rat) LD50 and dermal (rabbit) LD50 values are >10000 mg/kg and >10000 mg/kg, respectively.

Inhalation: The 4-hour inhalation (rat) LC50 value is estimated to be >20 mg/l.

Carcinogenicity: This product contains no known or suspected carcinogens.

California Proposition 65 Warning (applicable in California only): This product contains (a) chemical(s) known to the State of California to cause cancer.

Material Safety Data Sheet

Product: ENTEGRATE FR 7170

Mutagenicity: No mutagenic effects are known for the components of this product.

Teratogenicity: No teratogenic effects are known for the components of this product.

Section 12 - Ecological Information

Aquatic Toxicity:

Toxicity to fish: LC50/Lepomis macrochirus & Brachydanio rerio /96 hours > 100 mg/l (OECD 203)

Toxicity to daphnia: EC50/Daphnia magna/48 hours >100 mg/l (OECD 202)

Toxicity to algae: IC50/Selenastrum capricornutum/72 hours > 100 mg/l (OECD 201)

Bioaccumulation: CO2 Evolution: Modified Sturm (OECD 301B) The large polymer size is incompatible with transport across biological membranes and diffusion; the bioconcentration factor is therefore considered to be zero.

Environmental Degradation: Not readily biodegradable

Soil Absorption/Mobility: No studies have been conducted for this product.

Section 13 - Disposal Considerations

Disposal: Review federal, state and local government requirements prior to disposal.

Disposal Regulatory Requirements: Dispose of in accordance with all federal, state, and local environmental laws and regulations.

Container Cleaning and Disposal: Rinse empty containers with water and use the rinsate to prepare the working solution. Review federal, state and local government requirements prior to disposal.

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: Non-Regulated

HMIS Label: 1 1 0 B

Section 15 - Regulatory Information

EPA Regulations:

All components of this product are listed (or are not required to be listed) in the TSCA inventory.

SARA TITLE III –CERCLA LIST (Sec. 311/312): Acute health hazard.

SARA TITLE III-TOXIC CHEMICAL LIST (Sec. 313): This product does not contain any chemicals subject to routine annual toxic chemical release reporting.

SARA TITLE III-EXTREMELY HAZARDOUS SUBSTANCE (Sec. 302/304): This product contains no extremely hazardous substances subject to emergency planning requirements.

Section 16 - Other Information

Prepared By: U.S. Water Services

Revision Notes: Original

Disclaimer:

USER'S RESPONSIBILITY

The information and recommendations contained herein cannot cover all possible situations which the user may experience during storage, handling and use of the product. Each aspect of your operation should be examined to determine if additional precautions may be necessary. All health and safety information contained in this bulletin should be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.

DISCLAIMER OF LIABILITY

As the conditions or methods of use are beyond our control, we do not assume any responsibility and expressly disclaim any liability for any use of this material. Information contained herein is believed to be true and accurate but all statements or suggestions are made without warranty, expressed or implied, regarding accuracy of the information, the hazards connected with the use of the material or the results to be obtained from the use thereof. Compliance with all applicable federal, state and local laws and regulations remains the responsibility of the user.