Safety Data Sheet

Clearflow Granular Flocculant 1150

1. Identification of the Product and the Company

Product Name: Clearflow Granular Flocculant 1150 **Product Type:** Granular Solid
Chemical Family: Cationic Polymer

Material Uses: Clearflow Granular Focculant 1150 is used as a flocculating agent in municipal and industrial water and wastewater treatment.

Supplier: Clearflow Group Inc. #140 – 134 Pembina Road Sherwood Park, AB T8H 0M2
Ph. 780-410-1403 Fx. 780-410-1406 www.clearflowgroup.com

In Case of Emergency: 780-410-1403

2. Composition / Information on Ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

3. Hazard Identification

Potential Acute Health Effects

Inhalation: Inhalation of dusts of the product may be irritating to the respiratory system. May irritate mouth, nose, and throat.
Ingestion: May cause irritation of the lining of the stomach.
Skin: Mild to Moderate irritation can occur. Prolonged or repeated contact may cause drying of the skin. Prolonged or repeated contact may cause discomfort and local redness.
Eyes: May cause eye irritation. May result in mild to moderate irritation to eyes.

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Aqueous solutions or powders that become wet render surfaces extremely surfaces.

Canada Hazard Identification

Canadian WHMIS Class: Not controlled

4. First Aid Measures

Inhalation: Remove person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, get immediate medical attention.

Skin contact: In case of contact, rinse with soap and water. Remove contaminated clothing and launder before reuse. In case of persistent skin irritation, consult a physician.

Eye Contact: In case of contact, flush eyes and under the eyelids with plenty of water for at least 15 minutes. Seek medical attention if irritation persists.

Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious or convulsing person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the longs. This product is not considered toxic based on studies on laboratory animals.

Notes to Physician: Treatment based on sound judgement of physician and individual reactions of patient.

5. Fire-Fighting Measures

Suitable Extinguishing Media: Water, water spray, foam, carbon dioxide (CO2), dry powder. Use an extinguishing media suitable for the surrounding fire.

Hazardous Thermal Decomposition Products: Carbon and Nitrogen Oxides.

Special Fire-Fighting Precautions: Aqueous solutions or powders that become wet render surfaces extremely slippery.

Special Protective Equipment for Fire-Fighters: No special protective equipment required.

NFPA Ratings for this product are:	HEALTH 1	FLAMMABILITY 0	INSTABILITY 0
HMIS Ratings for this product are:	HEALTH 1	FLAMMABILITY 0	REACTIVITY 0

6. Accidental Release Measures

Personal precautions: No special precautions required.

Environmental Precautions: Prevent entry of concentrated solutions into sewers or streams, dike if needed.

Procedure for Clean-up: Do not flush with water. Clean up promptly by sweeping or vacuum. Keep in suitable and closed containers for disposal. After most of the material has been cleaned-up clean the area with warm, soapy water.

7. Handling and Storage

Handling: For industrial use only. Handle and open containers with care. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid dust formation. Do not breathe vapours or dust. Wash hands before breaks and at the end of the workday.

Storage: Store in a cool, dry area (0-35^{o}C). Protect container[s] against physical damage.

8. Exposure Controls / Personal Protection

Personal Protection

Respiratory: A respirator may be required when working with Clearflow Granular Flocculant 1150. Dust safety masks are recommended where concentration of total dust is more than 10 mg/m^3.

Hands: Use gloves appropriate for work or task being performed. Rubber gloves are recommended.

Eyes: Safety glasses with side-shields. Do not wear contact lenses.

Skin Chemical resistant apron or protective suit if splashing or contact with skin is likely.

Other Personal Protection Data: Ensure that eyewash stations and safety showers are proximal to the work-station location.

Hygiene Measures: Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice.

Engineering Controls: Local exhaust ventilation as necessary if dusting or misting occurs. Natural ventilation is adequate in absence of dusts.

9. Physical and Chemical Properties

Physical State:	Granular solid	**Color:**	Creamy White
Odor:	Slight	**pH:**	2.5-4.5 @ 5g/L
Bulk Density:	0.70-0.80	**Viscosity:**	concentration dependant (about 60 cps @ 2.5 g/L)
Melting/Freezing Point:	Not available.	**Flash Point:**	Does not flash.
Autoignition Temperature:	Does not ignite.	**Solubility:**	Completely soluble.
LogPow:	0		

10. Stability and Reactivity

Chemical Stability: The product is stable. No hazardous polymerization will occur.

Materials to Avoid: Oxidizing agents may cause exothermic reactions.

Hazardous Decomposition Products: Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NOx), carbon oxides (COx).

11. Toxicological Information

Acute Toxicity

Oral: Based on studies on similar products, this material is not expected to be toxic.
Dermal: Based on studies on similar products, this material is not expected to be toxic.
Inhalation: Based on studies on similar products, this material is not expected to be toxic.

Chronic Toxicity

By analogy with similar products, this product is not expected to be irritating.

Irritation

Skin: May cause skin irritation with susceptible persons.
Eyes: By analogy with similar products tested according to the Draize technique this material should produce no corneal or iridial effects and only slightly transitory conjuctival effects similar to those which all granular materials have on conjuctivae.

Sensitization: The product is not expected to ne sensitizing.

Carcinogenicity

2-Propenamide is a suspected human carcinogen, but is present at <0.05% (drinking water additive standard).
Carcinogenicity Comment: No additional information available.
Reproductive Toxicity / Teratogenicity / Embryotoxicity / Mutagenicity: Not available.

12. Ecological Information

Aquatic Ecotoxicity

Ingredient	Species	Test	Result
Whole Product	*Oncorhynchus mykiss* (Rainbow Trout)	LC50 96 hr (survival)	0.6 mg/L
	Daphnia magna	EC50 48 hr (immobilization)	0.16 mg/L

*Aquatic Ecotoxicity calculated based on partial concentrations of constituents.

Algae: Algal inhibition tests are not appropriate. The flocculating characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalidates the test.

Bioaccumulation: Does not bioaccumulate.

Persistence / Degradability: Not readily biodegradable. Full environmental degradation is expected. Degradation initiation and rate are dependent on UV exposure.

Hydrolysis: Does not hydrolyse.

LogPow: 0

Other: The effects of this product on aquatic organisms are rapidly and significantly mitigated by the presence of dissolved organic carbon in the aquatic environment.

13. Disposal Considerations

Disposal of Waste Method: Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations.

Contaminated Packaging: Rinse empty containers with water and use the rinse water to prepare the working solutions. Can be landfilled or incinerated when in compliance with local regulations.

14. Transport Information

Regulatory Information	UN Number	Proper Shipping Name	Hazard Class	PG*	Label	Additional Information
DOT (U.S.)	-	-	-	-	-	not a regulated product
TDG (Canada)	-	-	-	-	-	not a regulated product

PG* : Packaging Group

15. Regulatory Information

Canadian WHMIS Class:
Not controlled.

Canadian Ingredients Disclosure List:
None Listed.

International Inventories:

USA (TSCA): Complies with all applicable rules and orders under TSCA.

European Union (EINECS/ELINCS): Existing polymer according to the definition in the 7th Amendment to Directive 67/548/EEC. All starting materials and additives are listed in EINECS.

16. Other Information

Additional Information: This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

Prepared By: Clearflow Group, Inc.

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Logo update, data review, product name update – 1/05/2021

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*****END OF SDS*****