# Safety Data Sheet

Clearflow Dry Flocculant 800

## 1. Identification of the Product and the Company

**Product Name:** Clearflow Dry Flocculant 800 **Product Type:** Solid **Chemical Family:** Cationic Polymer

**Material Uses:** Clearflow Dry Flocculant 800 is used as a coagulating 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

| Ingredient | CAS # | Proportion |
|---|---|---|
| PolyDADMAC (poly-diallyldimethylammonium chloride) | 26062-79-3 | 100% |

## 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 defatting and 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 should not be required when working with Clearflow Dry Flocculant 800. 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 misting occurs. Natural ventilation is adequate in absence of mists.

## 9. Physical and Chemical Properties

| | | | |
|---|---|---|---|
| **Physical State:** | Flakey solid | **Color:** | White |
| **Odor:** | Slight | **pH:** | 2.5-4.5 @ 5g/L |
| **Bulk Density:** | 0.70-0.80 | **Viscosity:** | concentration dependant (about 600 cP @ 20%) |
| **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.

## 12. Ecological Information

**Aquatic Ecotoxicity**

| Ingredient | Species | Test | Result |
|---|---|---|---|
| Whole Product | *Oncorhynchus mykiss* (Rainbow Trout) | LC50 96 hr (survival) | 0.309 mg/L |
| | *Daphnia magna* | EC50 48 hr (immobilization) | 0.0817 mg/L |

**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. |
| **Date of Issue:** | 1/05/2021 |
| **Change List:** | original document created – 1/28/2015<br>data review – 5/10/2017<br>data review, SDS conversion – 4/05/2019<br>Logo update, data review, product name update – 1/05/2021 |
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*****END OF SDS*****