

Revision Date: 08/28/2013 Print Date: 9/4/2013 MSDS Number: R0557321 Version: 1.13

Praestol<sup>™</sup> 857 BS FLOCCULANT <sup>™</sup> Trademark, Ashland or its subsidiaries, registered in various countries383052

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

| Ashland<br>P.O. Box 2219<br>Columbus, OH 43216 | Regulatory Information Number<br>Telephone<br>Emergency telephone number | 1-800-325-3751<br>614-790-3333<br>1-800-ASHLAND (1-800-274-5263) |
|--|--|--|
| Product name                                   | Praestol™ 857 BS FLOCCULANT  |  |
| Product code                                   | ™ Trademark, Ashland or its subsidiarie<br>383052                        | es, registered in various countries                              |
| Product Use Description                        | Flocculating agent   |  |
|  |  |  |

# 2. HAZARDS IDENTIFICATION

#### **Emergency Overview**

Appearance: solid, powder, white

NOTICE: WHILE THIS MATERIAL HAS A LOW LEVEL OF TOXICITY, GOOD INDUSTRIAL HYGIENE PRACTICES ARE ENCOURAGED TO MINIMIZE EXPOSURE.

#### **Potential Health Effects**

#### Exposure routes

Inhalation, Skin contact, Eye Contact, Ingestion

#### Eye contact

Dust can cause eye irritation. Symptoms include stinging, tearing, redness, and swelling of eyes.

#### Skin contact

Unlikely to cause skin irritation or injury.

#### Ingestion

Swallowing small amounts of this material during normal handling is not likely to cause harmful effects. Swallowing large amounts may be harmful.

#### Inhalation

This material is a dust or may produce dust. Prolonged or repeated breathing of this material may result in chronic bronchitis (inflammation of the airways of the lungs). Symptoms include coughing and shortness of breath. Symptoms are not expected at air concentrations below the recommended exposure limits, if applicable (see Section 8.).

# **Aggravated Medical Condition**

Preexisting disorders of the following organs (or organ systems) may be aggravated by exposure to this material:, lung (for example, asthma-like conditions)

#### Symptoms

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Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include:, stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), Headache, Dizziness

## **Target Organs**

No data

#### Carcinogenicity

This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA). This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

#### Reproductive hazard

Based on the available information, risk to the fetus from maternal exposure to this material cannot be assessed. Based on the available information, risk to the fetus from maternal exposure to this material cannot be assessed.

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Cationic polyacrylamide

| Hazardous Components | CAS-No. / Trade Secret<br>No. | Concentration |
|----------------------|-------------------------------|---------------|
| UREA                 | 57-13-6                       | >=1-<1.5%     |

## 4. FIRST AID MEASURES

#### Eyes

If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.

#### Skin

First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.

#### Ingestion

Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

#### Inhalation

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If symptoms develop, move individual away from exposure and into fresh air. If symptoms persist, seek medical attention. If breathing is difficult, administer oxygen. Keep person warm and quiet; seek immediate medical attention.

#### Notes to physician

**Hazards:** No information available. **Treatment:** No information available.

### **5. FIREFIGHTING MEASURES**

## Suitable extinguishing media

Water spray

#### Hazardous combustion products

acid vapors, Ammonia, carbon dioxide and carbon monoxide, nitrogen oxides (NOx)

#### **Precautions for fire-fighting**

Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

#### 6. ACCIDENTAL RELEASE MEASURES

# **Personal precautions**

For personal protection see section 8. Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Material can create slippery conditions. Avoid breathing dust.

#### **Environmental precautions**

Do not flush into surface water or sanitary sewer system.

#### Methods for cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Pick up and arrange disposal without creating dust. The area should be thoroughly flushed with water and scrubbed to remove residue. If slipperiness remains, apply more dry-sweeping compound.

#### Other information

Comply with all applicable federal, state, and local regulations.

#### 7. HANDLING AND STORAGE

## Handling

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Avoid dust formation. This material is slippery when wet.

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#### Storage

Store in a cool, dry, ventilated area. Keep from freezing.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Exposure Guidelines

| UREA |                       | 57-13-6  |                    |  |
|------|-----------------------|----------|--------------------|--|
| WEEL | time weighted average | 10 mg/m3 | Total particulate. |  |

#### **General advice**

These recommendations provide general guidance for handling this product. Personal protective equipment should be selected for individual applications and should consider factors which affect exposure potential, such as handling practices, chemical concentrations and ventilation. It is ultimately the responsibility of the employer to follow regulatory guidelines established by local authorities.

Avoid breathing dust.

#### **Exposure controls**

Provide appropriate exhaust ventilation at places where dust is formed. Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

#### Eye protection

Wear safety glasses or chemical splash goggles when dust exposure is possible.

## Skin and body protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

Wear resistant gloves (consult your safety equipment supplier).

## **Respiratory protection**

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

| 9. PHYSICAL AND CHEMICAL PROPE | RTIES |  |
|--------------------------------|-------|--|
|                                |       |  |
|                                |       |  |
| Physical state                 | solid |  |

powder

white

Form

Colour



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| Odour                                       | very faint       |
|---|------------------|
| Boiling point/boiling range                 | / not applicable |
| pH  | 7 @ 10 g/l       |
| Flash point                                 |                  |
|   | not applicable   |
| Ignition temperature                        | > 400.00 °C      |
| Lower explosion limit/Upper explosion limit | 30,000 mg/m3 /   |
| Density                                     | (ca.) 0.72 g/cm3 |
| Bulk density                                | (ca.) 600 kg/m3  |
| Water solubility                            | soluble          |
| Decomposition temperature                   | > 150 °C         |
|   |                  |

## **10. STABILITY AND REACTIVITY**

#### Stability

Stable.

## **Conditions to avoid**

Keep away from heat, flame, sparks and other ignition sources. Heat, flames and sparks.

#### Incompatible products

Acids, Chlorine, nitrates, Strong bases, Strong oxidizing agents, strong reducing agents

#### Hazardous decomposition products

acid vapors, carbon dioxide and carbon monoxide, nitrogen oxides (NOx), Ammonia

#### Hazardous reactions

Product will not undergo hazardous polymerization.

# 11. TOXICOLOGICAL INFORMATION

| Information on likely routes of exposure | : | Inhalation<br>Skin contact<br>Eye Contact<br>Ingestion |
|--|---|--|
| Product                                  |   |  |
| Acute oral toxicity                      | : | LD 50Rat<br>> 5,000 mg/kg                              |
| Acute inhalation toxicity                | : | no data available                                      |



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| Acute dermal toxicity             | : | no data available  |
|-----------------------------------|---|--|
| Skin corrosion/irritation         | : | Result: Not irritating to skin   |
| Serious eye damage/eye irritation | : |  |
| Respiratory or skin sensitisation | : | Species: guinea pig<br>Classification: Did not cause sensitisation on laboratory animals.<br>Method: OECD Test Guideline 406 |
| Components:                       |   |  |
| UREA:<br>Germ cell mutagenicity   |   |  |

| Genotoxicity in vitro | : | Type: Ames test  |
|-----------------------|---|------------------|
|                       |   | Result: negative |

| 12. ECOLOGICAL INFORMATIO                           | Ν   |
|---|---|
| Ecotoxicity<br><u>Product:</u>                      |   |
| Toxicity to fish                                    | <ul> <li>LC 50 (Fish): 1 - 10 mg/l<br/>Exposure time: 96 h<br/>Information given is based on data on the components and the<br/>ecotoxicology of similar products.<br/>Test conducted using environmentally representative water.</li> </ul>                        |
| Toxicity to daphnia and other aquatic invertebrates | <ul> <li>EC 50 (Water flea (Daphnia magna)): &gt; 10 mg/l<br/>Exposure time: 48 h<br/>Information given is based on data on the components and the<br/>ecotoxicology of similar products.<br/>Test conducted using environmentally representative water.</li> </ul> |
| Components:   |   |
| <b>UREA:</b><br>Toxicity to fish                    | : LC 50 (Leuciscus idus (Golden orfe)): > 6,810 mg/l<br>Exposure time: 96 h   |
|   |   |



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|   | LC 50 (Poecilia reticulata (guppy)): 17,500 mg/l<br>Exposure time: 96 h   |
|---|---|
| Toxicity to daphnia and other aquatic invertebrates | : EC 50 (Water flea (Daphnia magna)): 3,910 mg/l<br>Exposure time: 48 h<br>Method: Static   |
| Persistence and degradability                       |   |
| Product:  |   |
| Physico-chemical removability                       | <ul> <li>At natural pHs (&gt;6) the product degrades due to hydrolysis to<br/>more than 70% in 28 days.</li> <li>The hydrolysis products are not harmful to aquatic organisms.</li> </ul> |
| Components:   |   |
| no data available                                   |   |
| Bioaccumulative potential                           |   |
| Product:  |   |
| no data available                                   |   |
| Components:   |   |
| UREA:   |   |
| Bioaccumulation                                     | <ul> <li>Species: Green algae (Chlorella fusca vacuolata)<br/>Exposure time: 24 h<br/>Concentration: 0.05 mg/l<br/>Bioconcentration factor (BCF): 11,700<br/>Method: Static</li> </ul>    |
| Partition coefficient: n-<br>octanol/water          | : log Pow: -2.11  |
| Mobility in soil                                    |   |
| Product:  |   |
| no data available                                   |   |
| Components:   |   |
| no data available                                   |   |

# 13. DISPOSAL CONSIDERATIONS Waste disposal methods



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Dispose of in accordance with all applicable local, state and federal regulations.

# 14. TRANSPORT INFORMATION

#### REGULATION

| ID NUMBER       | PROPER SHIPPING NAME | *HAZARD<br>CLASS | SUBSIDIARY<br>HAZARDS | PACKING<br>GROUP | MARINE<br>POLLUTANT /<br>LTD. QTY. |  |
|-----------------|----------------------|------------------|-----------------------|------------------|------------------------------------|--|
| U.S. DOT - ROAD |                      |                  |                       |                  |                                    |  |

Not dangerous goods

U.S. DOT - RAIL

Not dangerous goods

#### **U.S. DOT - INLAND WATERWAYS**

Not dangerous goods

#### **TRANSPORT CANADA - ROAD**

Not dangerous goods

## **TRANSPORT CANADA - RAIL**

Not dangerous goods

## **TRANSPORT CANADA - INLAND WATERWAYS**

Not dangerous goods

## INTERNATIONAL MARITIME DANGEROUS GOODS

Not dangerous goods

## INTERNATIONAL AIR TRANSPORT ASSOCIATION - CARGO

Not dangerous goods

## INTERNATIONAL AIR TRANSPORT ASSOCIATION - PASSENGER

Not dangerous goods

# MEXICAN REGULATION FOR THE LAND TRANSPORT OF HAZARDOUS MATERIALS AND WASTES

Not dangerous goods

## \*ORM = ORM-D, CBL = COMBUSTIBLE LIQUID

Dangerous goods descriptions (if indicated above) may not reflect quantity, end-use or region-specific exceptions that can be applied. Consult shipping documents for descriptions that are specific to the shipment.

# **15. REGULATORY INFORMATION**

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## California Prop. 65

| Proposition 65 warnings are not required for this product based on the |  |
|--|--|
| results of a risk assessment.  |  |

#### SARA Hazard Classification SARA 311/312 Classification

No SARA Hazards

Acute Health Hazard

## SARA 313 Component(s)

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

## **Notification status**

| US. Toxic Substances Control Act                                 | y (positive listing) |
|--|----------------------|
| Canada. Canadian Environmental Protection Act (CEPA). Domestic   | y (positive listing) |
| Substances List (DSL). (Can. Gaz. Part II, Vol. 133)             |                      |
| Australia. Industrial Chemical (Notification and Assessment) Act | y (positive listing) |
| Japan. ENCS - Existing and New Chemical Substances Inventory     | n (Negative listing) |
| Korea. Toxic Chemical Control Law (TCCL) List                    | y (positive listing) |
| Philippines. The Toxic Substances and Hazardous and Nuclear      | y (positive listing) |
| Waste Control Act  |                      |
| China. Inventory of Existing Chemical Substances                 | y (positive listing) |
|  | ) (1                 |

|                  | HMIS | NFPA |
|------------------|------|------|
| Health           | 1    | 1    |
| Flammability     | 0    | 0    |
| Physical hazards | 0    |      |
| Instability      |      | 0    |
| Specific Hazard  |      |      |

# **16. OTHER INFORMATION**

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This MSDS has been prepared by Ashland's Environmental Health and Safety Department (1-800-325-3751).

List of abbreviations and acronyms that could be, but not necessarily are, used in this safety data sheet : ACGIH : American Conference of Industrial Hygienists BEI : Biological Exposure Index

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CAS : Chemical Abstracts Service (Division of the American Chemical Society). CMR : Carcinogenic, Mutagenic or Toxic for Reproduction FG : Food grade GHS : Globally Harmonized System of Classification and Labeling of Chemicals. H-statement : Hazard Statement IATA : International Air Transport Association. IATA-DGR : Dangerous Goods Regulation by the "International Air Transport Association" (IATA). ICAO : International Civil Aviation Organization ICAO-TI (ICAO) : Technical Instructions by the "International Civil Aviation Organization" IMDG : International Maritime Code for Dangerous Goods ISO : International Organization for Standardization logPow : octanol-water partition coefficient LCxx : Lethal Concentration, for xx percent of test population LDxx : Lethal Dose, for xx percent of test population. ICxx : Inhibitory Concentration for xx of a substance Ecxx : Effective Concentration of xx N.O.S.: Not Otherwise Specified OECD : Organization for Economic Co-operation and Development **OEL** : Occupational Exposure Limit P-Statement : Precautionary Statement PBT : Persistent, Bioaccumulative and Toxic **PPE : Personal Protective Equipment** STEL : Short-term exposure limit STOT : Specific Target Organ Toxicity TLV : Threshold Limit Value TWA : Time-weighted average vPvB : Very Persistent and Very Bioaccumulative WEL : Workplace Exposure Level CERCLA : Comprehensive Environmental Response, Compensation, and Liability Act DOT : Department of Transportation FIFRA : Federal Insecticide, Fungicide, and Rodenticide Act HMIRC : Hazardous Materials Information Review Commission HMIS : Hazardous Materials Identification System

NFPA : National Fire Protection Association

NIOSH : National Institute for Occupational Safety and Health

OSHA : Occupational Safety and Health Administration

PMRA : Health Canada Pest Management Regulatory Agency

RTK : Right to Know

WHMIS : Workplace Hazardous Materials Information System