

MATERIAL SAFETY DATA SHEET

Page 1 of 3

CM 8518-Dewatering Flocculant

REVISION DATE:

PRINT DATE : 01/02/2011

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY

Product name : CM 8518 -Dewatering Flocculant

Company : PT Crystal Anugerah Abadi
Gedung Perwata Tower, 11th Floor, Suite F
Jl. Pluit Selatan Raya Kav 1 CBD Pluit- Jakarta14440

Telephone number : (+62.21) 66676872 **Fax** : (+62.21) 66676870

2. COMPOSITION/INFORMATION ON INGREDIENTS

Identification of the preparation : Cationic water-soluble polymer

3. HAZARDS IDENTIFICATION

Aqueous solutions or powders that become wet render surface extremely slippery.

4. FIRST AID MEASURES

Inhalation : No hazards which require special first aid measures.

Skin contact : No hazards which require special first aid measures. Wash with water and soap as a precaution. In case of persistent skin irritation, consult a physician.

Eye contact : Rinse thoroughly with plenty of water, also under the eyelids. In case of persistent eye irritation, consult a physician.

Ingestion : No hazards which require special first aid measures. The product is not considered toxic based on studies on laboratory animals.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water, water spray, foam, carbon dioxide (CO₂), dry powder.

Special fire-fighting precautions : Aqueous solutions or powders that become wet render surface extremely slippery.

Special protective equipment for Firefighters : No special protective equipment required.

MATERIAL SAFETY DATA SHEET

Page 2 of 3

CM 8518-Dewatering Flocculant

REVISION DATE:

PRINT DATE : 01/02/2011

6. ACCIDENTAL RELEASE MEASURES

- Personal precautions :* No special precautions required.
- Environmental precautions :* Do not contaminate water.
- Methods for cleaning up :* Do not flush with water. Clean up promptly by scoop or vacuum. Keep in suitable and closed containers for disposal. After cleaning, flush away traces with water.

7. HANDLING AND STORAGE

- Handling :* Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Wash hands before breaks and at the end of workday.
- Storage :* Keep in a dry, cool place (0 - 35°C).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering measures to reduce exposure :* Use local exhaust if dusting occurs. Natural ventilation is adequate in absence of dusts.
- Personal protection equipment*
- *Respiratory protection :* Dust safety masks are recommended where concentration of total dust is more than 10 mg/m³.
 - *Hand protection :* Rubber gloves.
 - *Eye protection :* Safety glasses with side-shields. Do not wear contact lenses.
 - *Skin and body protection :* Chemical resistant apron or protective suit if splashing or repeated contact with solution is likely.
- Hygiene measures :* Wash hands before breaks and at the end of workday. Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

- Form* : granular solid
- Colour* : white
- Odour* : none
- Melting point (°C)* : Not applicable
- Flash point (°C)* : Not applicable
- Autoignition temperature (°C)* : Not applicable

MATERIAL SAFETY DATA SHEET

Page 3 of 3

CM 8518-Dewatering Flocculant

REVISION DATE:

PRINT DATE : 01/02/2011

Bulk density : See Product Data Sheet

Water solubility : See Product Data Sheet

Viscosity (cps) : See Product Data Sheet

10. STABILITY AND REACTIVITY

Stability : Product is stable, no hazardous polymerisation will occur.

Materials to avoid : Oxidizing agents may cause exothermic reactions.

Hazardous decomposition products : Thermal decomposition may produce: hydrogen chloride gas, nitrogen oxides (NO_x), carbon oxides.

11. TOXICOLOGICAL INFORMATION

Acute toxicity

- *Oral* : LD50/oral/rat > 5000 mg/kg

- *Dermal* : The results of testing on rabbits showed this material to be non-toxic even at high dose levels.

- *Inhalation* : The product is not expected to be toxic by inhalation.

Irritation

- *Skin* : The results of testing on rabbits showed this material to be non-irritating to the skin.

- *Eyes* : Testing conducted according to the Draize technique showed the material produces no corneal or iridial effects and only slight transitory conjunctival effects similar to those which all granular materials have on conjunctivae.

Sensitization : The results of testing on guinea pigs showed this material to be non-sensitizing.

Chronic toxicity : A two-year feeding studies on rats did not reveal adverse health effects. A one-year study on dogs did not reveal adverse health effects.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The aquatic toxicity is highly mitigated by the presence of dissolved organic carbon in the water. Results obtained using the US EPA "Dirty Water" test show that irreversible adsorption onto suspended matter and dissolved organics (such as humic and other organic acid) present in natural waters, reduces the toxicity to aquatic organisms by a factor of over 10.

Environmental fate

The product is rapidly eliminated from the aquatic medium through irreversible adsorption onto suspended matter and dissolved organics.

MATERIAL SAFETY DATA SHEET

Page 4 of 3

CM 8518-Dewatering Flocculant

REVISION DATE:

PRINT DATE : 01/02/2011

- *Bioaccumulation* : The product is not expected to bioaccumulate.
- *Persistence / degradability* : No data available.

13. DISPOSAL CONSIDERATIONS

- Waste from residues / unused products* : In accordance with local and national regulations.
- Contaminated packaging* : Rinse empty containers with water and use the rinse water to prepare the working solution. Can be land filled or incinerated, when in compliance with local regulations.

14. TRANSPORT INFORMATION

Remarks : Not classified as dangerous in the meaning of transport regulations

15. REGULATORY INFORMATION

This product is not a hazardous article and need to be labelled according to EC-Directives as amended.

Inventory status :

- EINECS (Europe)* : Existing polymer according to the definition in the 7th Amendment to Directive 67/548/EEC. All starting materials and additives are listed in EINECS.
- TSCA (USA)* : Complies with all applicable rules or orders under TSCA.
- DSL (Canada)* : All components listed on inventory.
- AICS (Australia)* : All components listed on inventory.
- MITI (Japan)* : All components listed on inventory.
- ECL (Korea)* : All components listed on inventory.

The information provided in this Safety Data Sheet is correct in the best of our knowledge, information and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal and release, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.