

**SUPERFLOC C-1598**

Ref. /US/EN

Revision Date: 02/15/2017 Previous date: 11/24/2016

Print Date: 01/17/2018

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

### Product information

**Product name**  
**SUPERFLOC C-1598**

### Recommended use of the chemical and restrictions on use

#### Use of the Substance/Mixture

Flocculating agent

#### Recommended restrictions on use

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### Supplier's details

Kemira Chemicals, Inc.  
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30339 Atlanta USA  
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HEAD OFFICE  
Kemira Oyj  
P.O. Box 330  
00101 HELSINKI  
FINLAND  
Telephone +358108611 Telefax +358108621124

### Emergency telephone number

CHEMTREC: 1-800-424-9300

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## 2. HAZARDS IDENTIFICATION

### Classification of the substance or mixture

Eye irritation; Category 2; Causes serious eye irritation.;

### GHS-Labeling

**Hazard pictograms****Signal word**

: Warning

**Hazard statements****Hazard statements:**

H319 Causes serious eye irritation.

**Precautionary statements****Prevention:**P264 Wash hands thoroughly after handling.  
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.**Response:**

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/ attention.

**Other hazards which do not result in classification****Advice:** Contaminated surfaces will be extremely slippery.**Potential environmental effects:** This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.**3. COMPOSITION/INFORMATION ON INGREDIENTS****Substances /Mixtures**

Chemical nature

Cationic polyacrylamide.

**Hazardous components**

Chemical Name	CAS-No.	Concentration[%]
distillates (petroleum), hydrotreated light	64742-47-8	20 - 24 %
Alcohols, C10-16, ethoxylated	68002-97-1	0 - 2 %
Alcohols, C12-16, ethoxylated	68551-12-2	0 - 2 %
Alcohols, C12-14, ethoxylated	68439-50-9	0 - 2 %

Components listed above that have a zero minimum and a common maximum range are interchangeably used components based on availability. Only one of these components is contained in the product up to the maximum amount noted.

**4. FIRST AID MEASURES****Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance.

Move out of dangerous area. Consult a physician. Show this safety data sheet to the doctor in attendance.

**Inhalation**

Remove to fresh air. If breathing is difficult, give oxygen. If symptoms persist, call a physician.

Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion. If symptoms persist, call a physician.

**Skin contact**

Remove contaminated clothing and shoes. Wash off immediately with plenty of water. Wash contaminated clothing before re-use. If a person feels unwell or symptoms of skin irritation appear, consult a physician.

Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.

Flush eyes with water as a precaution. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.

**Ingestion**

If swallowed, call a poison control centre or doctor immediately. DO NOT induce vomiting unless directed to do so by a physician or poison control center. Never give anything by mouth to an unconscious person. Clean mouth with water and drink afterwards plenty of water. Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person. Obtain medical attention.

**Most important symptoms and effects, both acute and delayed**

Symptoms : No information available.

## 5. FIREFIGHTING MEASURES

**Suitable extinguishing media**

Water spray

Carbon dioxide (CO<sub>2</sub>)

Dry chemical

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**

none

**Special hazards arising from the substance or mixture**

Fire will produce dense black smoke containing hazardous combustion products (see section 10).

Do not allow run-off from fire fighting to enter drains or water courses.

**Special protective actions for fire-fighters**

Wear self-contained breathing apparatus and protective suit. For personal protection see SDS section 8.

Use NIOSH/MSHA approved respiratory protection.

**Further information**

In the event of fire, cool tanks with water spray.

Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

Where the exposure level is not known, wear approved, positive pressure, self-contained respirator.

Where the exposure level is known, wear approved respirator suitable for the level of exposure. For personal protection see SDS section 8. Chemical resistant boots.

Use personal protective equipment. Ensure adequate ventilation.

**Environmental precautions**

Should not be released into the environment.

Do not flush into surface water or sanitary sewer system.

**Methods and materials for containment and cleaning up**

Hazard of slipping on spilt product. Soak up with inert absorbent material. Shovel into suitable container for disposal. Flush with water. Use detergent if needed.

**Additional advice**

If the product contaminates rivers and lakes or drains inform respective authorities.

**7. HANDLING AND STORAGE****Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes and clothing. Wash thoroughly after handling.

**Advice on protection against fire and explosion:**

Normal measures for preventive fire protection.

**Conditions for safe storage, including any incompatibilities**

To avoid product degradation and equipment corrosion, do not use iron, copper or aluminium containers or equipment.

Keep container tightly closed in a dry and well-ventilated place.

**Materials to avoid:**

Strong oxidizing agents

To avoid product degradation and equipment corrosion, do not use iron, copper or aluminium containers or equipment.

**Storage stability:**

Storage temperature 39.2 - 89.6 °F

Other data No decomposition if stored and applied as directed.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Components	CAS-No.	Value	Form of exposure	Control parameters	Update	Basis
Distillates (petroleum), hydrotreated light	64742-47-8		Vapour	197 ppm 1,200 mg/m <sup>3</sup>		
		TWA		200 mg/m <sup>3</sup>	2006-11-29	CA BC OEL

**Appropriate engineering controls**

Avoid contact with skin and eyes. Do not breathe vapours, aerosols. Do not eat, drink or smoke when using this product.

Ensure adequate ventilation.

Keep away from tobacco products. Keep away from food and drink. Wash hands before breaks and immediately after handling the product.

**Individual protection measures, such as personal protective equipment****Respiratory protection**

Where exposures are below the established exposure limit, no respiratory protection is required. Where exposures exceed the established exposure limit, use respiratory protection recommended for the material and level of exposure.

**Hand protection**

Glove material: Chemical resistant gloves., Permeability tests are not available for this product. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. Gloves should be removed and replaced immediately if there is any indication of degradation or chemical breakthrough.

**Skin and body protection**

Chemical resistant protective clothing. Chemical resistant boots.

**Eye protection**

Tightly fitting safety goggles

**Environmental exposure controls**

No data available

**9. PHYSICAL AND CHEMICAL PROPERTIES****Information on basic physical and chemical properties**

**Physical state** liquid, viscous

**Colour** opaque, greenish, to, milky, white

**Odour** slight, hydrocarbon-like

**pH** 3 - 6

**Melting point/range**

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<b>Initial boiling point and boiling range</b>	Not applicable Boiling point/boiling range 212 °F
<b>Flash point</b>	> 212 °F (closed cup) (Pensky-Martens)
<b>Evaporation rate</b>	similar to water
<b>Explosive properties:</b>	
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Vapour pressure</b>	Like water
<b>Relative vapour density</b>	similar to water
<b>Density</b>	8.72 lb/gal
<b>Bulk density</b>	1.043 kg/m <sup>3</sup>
<b>Solubility(ies):</b>	
<b>Water solubility</b>	Limited by viscosity.
<b>Partition coefficient: n-octanol/water</b>	Not applicable
<b>Decomposition temperature</b>	No data available
<b>Viscosity:</b>	
<b>Viscosity, kinematic</b>	> 20.5 mm <sup>2</sup> /s ( 40 °C)
<b>Oxidizing potential</b>	The substance or mixture is not classified as oxidizing.
<b>Saturation in air (% vol.)</b>	No data available
<b>Surface tension</b>	No data available

## 10. STABILITY AND REACTIVITY

### Reactivity

Stable under recommended storage conditions.

### Chemical stability

No decomposition if stored and applied as directed.

### Possibility of hazardous reactions

Hazardous reactions: Hazardous polymerisation does not occur.

Note: Stable under recommended storage conditions., No

decomposition if used as directed.

**Conditions to avoid**

Conditions to avoid: Stable under recommended storage conditions.

No data available

**Incompatible materials**

Materials to avoid: Strong oxidizing agents

To avoid product degradation and equipment corrosion, do not use iron, copper or aluminium containers or equipment.

**Hazardous decomposition products**

Hazardous decomposition products: oxides of nitrogen  
ammonia  
hydrogen chloride (HCl)  
sulphur dioxide  
Carbon dioxide (CO<sub>2</sub>)  
Carbon monoxide (CO)

Thermal decomposition: Note: No data available

**11. TOXICOLOGICAL INFORMATION****Information on toxicological effects****Acute oral toxicity**

Conclusion: The acute toxicological results displayed may not be the results of actual testing of this material but based on a similar tested material.

/>/Rat/5,000 mg/kg/LD50 Oral

**Acute oral toxicity**

Distillates (petroleum), hydrotreated light:  
/>/Rat/5,000 mg/kg/LD50

**Acute inhalation toxicity**

LD50/Rat/4 h/>/20 mg/l/Remarks: estimated

**Acute inhalation toxicity**

Distillates (petroleum), hydrotreated light:  
LC50/Rat/4 h/>/5.2 mg/l

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<b>Acute dermal toxicity</b>	LD50/Rabbit/> /2,000 mg/kg
	Remarks: estimated
<b>Acute dermal toxicity</b>	<b>Distillates (petroleum), hydrotreated light:</b> LD50/Rabbit/> /2,000 mg/kg
<b>Skin corrosion/irritation</b>	/OECD Test Guideline 439/Read-across (Analogy)
<b>Serious eye damage/eye irritation</b>	Conclusion: No skin irritation /Calculation method Conclusion: Causes serious eye irritation.
<b>Respiratory or skin sensitisation</b>	
<b>Skin sensitisation</b>	Conclusion: Not sensitizing.
<b>Skin sensitisation</b>	<b>Distillates (petroleum), hydrotreated light:</b> Conclusion: This substance is not classified as a sensitizer.
<b>Germ cell mutagenicity</b>	
<b>Genotoxicity in vitro</b>	Ames test/Salmonella typhimurium (bacterium) Conclusion: No data available
<b>Genotoxicity in vitro</b>	<b>Distillates (petroleum), hydrotreated light:</b> Conclusion: No known effect.
<b>Genotoxicity in vivo</b>	<b>Distillates (petroleum), hydrotreated light:</b> Conclusion: not mutagenic
<b>Carcinogenicity</b>	
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	<b>Distillates (petroleum), hydrotreated light:</b>
<b>Reproductive toxicity</b>	Not classified by IARC or NTP.
<b>Toxicity for reproduction</b>	Conclusion: Based on available data, the classification criteria are not met.

**Toxicity for reproduction****Distillates (petroleum), hydrotreated light:**

Conclusion: Did not show teratogenic effects in animal experiments.

**12. ECOLOGICAL INFORMATION****Ecotoxicity effects****Aquatic toxicity**

LC50/96 h/Brachydanio rerio (zebra fish)/OECD Test Guideline 203: &gt; 1 - 10 mg/l

Remarks: similar product

EC50/48 h/Daphnia magna (Water flea): 10 - 100 mg/l

Remarks: similar product

/algae/Growth inhibition/OECD Test Guideline 201:

Due to the cationicity of the polymer, test is not appropriate.

Remarks: The effects on aquatic organisms are due to an external (non-systemic) mode of action and are significantly reduced (by a factor of 7-20) within 30 minutes due to the binding of the product to dissolved organic carbon and inorganic sorbents such as clays and silts.

**Toxicity to other organisms****Persistence and degradability**

Biological degradability:

Modified Sturm Test/OECD Test Guideline 301B:

Not readily biodegradable.

**Bioaccumulative potential**

Bioaccumulation is unlikely.

Partition coefficient: n-octanol/water: Not applicable

**Mobility in soil**

Water solubility: Limited by viscosity.

Surface tension: No data available

**Other adverse effects**

No data available

Additional ecological information: Ecotoxicological information provided is based on a structurally or compositionally similar product.

**13. DISPOSAL CONSIDERATIONS**

<b>Product</b>	Recycling, recovery and reuse of materials is recommended if permitted by regulations. If recycling is not practicable, dispose of in compliance with local regulations. Incineration is recommended. EPA Hazardous Waste - NO. Do not dispose of waste into sewer. Do not contaminate ponds, waterways or ditches with chemical or used container. Offer surplus and non-recyclable solutions to a licensed disposal company.
<b>Contaminated packaging</b>	Packages that cannot be cleaned must be disposed of the same way as the unused product. Empty remaining contents. Dispose of as unused product. Do not re-use empty containers.

**14. TRANSPORT INFORMATION****Land transport**

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30°C.

Protect from frost.

Keep away from direct sunlight.

**Sea transport**

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30°C.

Protect from frost.

Keep away from direct sunlight.

**Air transport**

Not classified as dangerous in the meaning of transport regulations.

Store between 5-30°C.

Protect from frost.

Keep away from direct sunlight.

**Special precautions for user**



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None known.

## 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation specific for the substance or mixture

### SARA Title III Section 311 Categories

Immediate (Acute) Health Effects: Yes;  
Delayed (Chronic) Health Effects: No;  
Fire Hazard: No;  
Sudden Release Of Pressure Hazard: No;  
Reactivity Hazard: No;

### SARA 302 Extremely Hazardous Substances

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.  
None Present ()

### SARA 313 - Specific Toxic Chemical Listings

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.  
None Present ()

### California Proposition 65

Acrylamide (79-06-1) < 0.1 %

Remarks: This product contains a chemical or chemicals known to the state of California to cause cancer, birth defects or other reproduction harm.

Other regulations : None.

### Notification status

- : All components of this product are included in the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.
- : All components of this product are included in the United States TSCA Chemical Inventory or are not required to be listed on the United States TSCA Chemical Inventory.

- : All components of this product are included in the Canada Domestic Substance List (DSL) or are not required to be listed on the Canada Domestic Substance List (DSL).
- : All components of this product are included in the Korean (ECL) inventory or are not required to be listed on the Korean (ECL) inventory.
- : All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine (PICCS) inventory.
- : All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.
- : This product's New Zealand Inventory of Chemical Substances (NZIoC) status has NOT been determined.
- : All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese (ENCS) inventory.
- : All components of this product are included on the Taiwan Toxic Chemical Substances Control Act Inventory.
- : All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

**HMIS Rating**

Health: 2

Flammability: 1

Reactivity: 0

**NFPA Rating**

Health: 2

Fire: 1

Reactivity: 0

**Training advice**

Read the safety data sheet before using the product.

**Further information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release



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#### **Sources of key data used to compile the Safety Data Sheet**

Regulations, databases, literature, own tests.

#### **Additions, Deletions, Revisions**

Relevant changes have been marked with vertical lines.