

**SAFETY DATA SHEET**

Revision Date: 02/04/2021

Print Date: 11/04/2021

SDS Number: R1201192

Version: 2.3

ZALTA MF5191  
FLOCCULANT  
883216**SECTION 1. IDENTIFICATION****Product identifier**Trade name : ZALTA MF5191  
  
FLOCCULANT**Recommended use of the chemical and restrictions on use**

Use of the Substance/Mixture : Flocculating agent

**Details of the supplier of the safety data sheet**Solenis LLC  
500 Hercules Road  
Wilmington, Delaware 19808  
United States of America (USA)

RegulatoryRequestsNA@solenis.com

**Emergency telephone number**

1-844-SOLENIS (844-765-3647)

**Product Information**

Contact your local Solenis representative

**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with 29 CFR 1910.1200**

Skin irritation : Category 2

Eye irritation : Category 2B

**GHS label elements**

Hazard pictograms :



Signal word : Warning

Hazard statements : H315 + H320 Causes skin and eye irritation.

Precautionary statements :

**Prevention:**  
P264 Wash skin thoroughly after handling.  
P280 Wear protective gloves.**Response:**P302 + P352 IF ON SKIN: Wash with plenty of soap and water.  
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

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to do. Continue rinsing.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

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

P362 Take off contaminated clothing and wash before reuse.

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

**Components**

Chemical name	CAS-No.	Classification	Concentration (%)
ALIPHATIC HYDROCARBON	Trade Secret	Flam. Liq. 4; H227 Asp. Tox. 1; H304	>= 20 - < 30
ALCOHOL ETHOXYLATE	Trade Secret	Acute Tox. 4; H302 Eye Dam. 1; H318	>= 1 - < 1.5

Actual concentration is withheld as a trade secret

**SECTION 4. FIRST AID MEASURES**

- General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.  
Do not leave the victim unattended.
- If inhaled : If breathed in, move person into fresh air.  
If unconscious, place in recovery position and seek medical advice.  
If symptoms persist, call a physician.
- In case of skin contact : Remove contaminated clothing. If irritation develops, get medical attention.  
If on skin, rinse well with water.  
First aid is not normally required. However, it is recommended that exposed areas be cleaned by washing with soap and water.  
Wash contaminated clothing before re-use.
- In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
If eye irritation persists, consult a specialist.
- If swallowed : IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell.  
Do not give milk or alcoholic beverages.

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- Never give anything by mouth to an unconscious person.  
 If symptoms persist, call a physician.
- Most important symptoms and effects, both acute and delayed : 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)  
 Lung irritation  
 confusion  
 irregular heartbeat  
 Convulsions  
 Inhalation of high concentrations of this material, as could occur in enclosed spaces or during deliberate abuse, may be associated with cardiac arrhythmias. Sympathomimetic drugs may initiate cardiac arrhythmias in persons exposed to this material.  
 This material is an aspiration hazard. Potential danger from aspiration must be weighed against possible oral toxicity when deciding whether to induce vomiting.  
 Causes skin and eye irritation.
- Notes to physician : No hazards which require special first aid measures.

**SECTION 5. FIREFIGHTING MEASURES**

- Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.  
 Water spray  
 Foam  
 Carbon dioxide (CO<sub>2</sub>)  
 Dry chemical
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during firefighting : If product is heated above its flash point it will produce vapors sufficient to support combustion. Vapors are heavier than air and may travel along the ground and be ignited by heat, pilot lights, other flames and ignition sources at locations near the point of release.  
 Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon monoxide  
 Carbon dioxide (CO<sub>2</sub>)  
 Nitrogen oxides (NO<sub>x</sub>)  
 Hydrocarbons
- Specific extinguishing methods : Product is compatible with standard fire-fighting agents.
- Further information : Fire residues and contaminated fire extinguishing water must

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be disposed of in accordance with local regulations.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

## SECTION 6. ACCIDENTAL RELEASE MEASURES

- |   |   |
|---|---|
| Personal precautions, protective equipment and emergency procedures | : Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed.<br>Comply with all applicable federal, state, and local regulations.  |
| Environmental precautions   | : Prevent product from entering drains.<br>Prevent further leakage or spillage if safe to do so.<br>If the product contaminates rivers and lakes or drains inform respective authorities. |
| Methods and materials for containment and cleaning up               | : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).<br>Keep in suitable, closed containers for disposal.                             |

## SECTION 7. HANDLING AND STORAGE

- |   |   |
|---|---|
| Advice on protection against fire and explosion | : Normal measures for preventive fire protection.   |
| Advice on safe handling                         | : Do not breathe vapours/dust.<br>Do not smoke.<br>Container hazardous when empty.<br>Smoking, eating and drinking should be prohibited in the application area.<br>For personal protection see section 8.<br>Dispose of rinse water in accordance with local and national regulations. |
| Conditions for safe storage                     | : Keep container tightly closed in a dry and well-ventilated place.<br>Containers which are opened must be carefully resealed and kept upright to prevent leakage.<br>Electrical installations / working materials must comply with the technological safety standards.                 |
| Further information on storage stability        | : No decomposition if stored and applied as directed.   |

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible	Basis

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			concentration	
ALIPHATIC HYDROCARBON	Trade Secret	TWA (Mist)	5 mg/m3	OSHA Z-1
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
		TWA (Mist)	5 mg/m3	OSHA P0
		TWA (Mist)	5 mg/m3	NIOSH REL
		ST (Mist)	10 mg/m3	NIOSH REL

**Engineering measures** : 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.

**Personal protective equipment**

Respiratory protection : In the case of vapour formation use a respirator with an approved filter.

Filter type : Type A

Hand protection

Material : nitrile rubber

Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

Eye protection : Wear chemical splash goggles when there is the potential for exposure of the eyes to liquid, vapor or mist.

Skin and body protection : Wear as appropriate:  
 Impervious clothing  
 Safety shoes  
 Choose body protection according to the amount and concentration of the dangerous substance at the work place.  
 Discard gloves that show tears, pinholes, or signs of wear.  
 Wear resistant gloves (consult your safety equipment supplier).

Hygiene measures : Wash hands before breaks and at the end of workday.  
 When using do not eat or drink.  
 When using do not smoke.

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**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : emulsion

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Colour	:	white
Odour	:	hydrocarbon-like
Odour Threshold	:	No data available
pH	:	ca. 4
Melting point/freezing point	:	No data available
Boiling point/boiling range	:	> 212 °F / > 100 °C The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
Flash point	:	> 212 °F / > 100 °C  Method: ASTM D92: Standard Test Method for Flash and Fire Points by Cleveland Open Cup. No flash point - Measurement made up to the indicated temperature, pilot light extinguishes.
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not classified as a flammability hazard
Self-ignition	:	The substance or mixture is not classified as self heating.
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapour pressure	:	No data available
Relative vapour density	:	No data available
Relative density	:	1,034
Density	:	ca. 1.0 g/cm <sup>3</sup> (68 °F / 20 °C)  8.625 lb/gal
Solubility(ies)		
Water solubility	:	dispersible
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Decomposition temperature	:	No data available

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883216**Viscosity**

Viscosity, dynamic : 300 - 1,400 mPa.s (68 °F / 20 °C)

Viscosity, kinematic : > 20.5 mm<sup>2</sup>/s (104 °F / 40 °C)

The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

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**SECTION 10. STABILITY AND REACTIVITY**

Reactivity : No decomposition if stored and applied as directed.

Chemical stability : Stable under recommended storage conditions.

Possibility of hazardous reactions : Product will not undergo hazardous polymerization.

Conditions to avoid : Avoid extreme temperatures.  
Freezing temperatures.  
Keep away from heat, flame, sparks and other ignition sources.

Heat, flames and sparks.

Incompatible materials : Strong oxidizing agents  
strong reducing agentsHazardous decomposition products : Carbon monoxide  
Carbon dioxide (CO<sub>2</sub>)  
Nitrogen oxides (NO<sub>x</sub>)  
Hydrocarbons

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**SECTION 11. TOXICOLOGICAL INFORMATION****Acute toxicity**

Not classified based on available information.

**Product:**Acute oral toxicity : LD<sub>50</sub> (Rat): > 2,000 mg/kg  
Remarks: Information given is based on data obtained from similar substances.**Components:****ALIPHATIC HYDROCARBON:**

Acute oral toxicity : LD 50 (Rat): &gt; 5,000 mg/kg

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- Acute inhalation toxicity : LC 50 (Rat, male and female): > 5.28 mg/l  
Exposure time: 4 h  
Test atmosphere: vapour  
Method: OECD Test Guideline 403  
Assessment: No adverse effect has been observed in acute inhalation toxicity tests.
- Acute dermal toxicity : LD 50 (Rabbit): > 2,000 mg/kg  
Assessment: No adverse effect has been observed in acute dermal toxicity tests.

**ALCOHOL ETHOXYLATE:**

- Acute oral toxicity : LD50 (Rat): Expected > 300 - 2,000 mg/kg

**Skin corrosion/irritation**

Causes skin irritation.

**Product:**

- Species : Rabbit  
Method : OECD Test Guideline 404  
Result : irritating  
GLP : yes

**Components:****ALIPHATIC HYDROCARBON:**

- Result : Mildly irritating to skin

**Serious eye damage/eye irritation**

Causes eye irritation.

**Product:**

- Species : Rabbit  
Result : Mild eye irritation  
Method : OECD Test Guideline 405

**Components:****ALIPHATIC HYDROCARBON:**

- Result : Mildly irritating to eyes

**ALCOHOL ETHOXYLATE:**

- Result : Corrosive to eyes

**Respiratory or skin sensitisation****Skin sensitisation**

Not classified based on available information.

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Not classified based on available information.

**Germ cell mutagenicity**

Not classified based on available information.

**Carcinogenicity**

Not classified based on available information.

**IARC** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Aspiration toxicity**

Not classified based on available information.

**Components:****ALIPHATIC HYDROCARBON:**

The substance or mixture is known to cause human aspiration toxicity hazards or has to be regarded as if it causes a human aspiration toxicity hazard.

**Further information****Product:**

Remarks : No data available

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity****Product:**

Toxicity to fish : LC50 (Oncorhynchus mykiss): 10 - 100 mg/l  
Exposure time: 96 h  
Test Type: static test  
Remarks: Information given is based on data on the components and the ecotoxicology of similar products.

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 10 - 100 mg/l

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aquatic invertebrates  
Exposure time: 48 h  
Test Type: static test

# **Ecotoxicology Assessment**

- Acute aquatic toxicity : Acute aquatic toxicity Category 2; Toxic to aquatic life.  
Chronic aquatic toxicity : Not classified based on available information.

## Components:

## **ALIPHATIC HYDROCARBON:**

# **Ecotoxicology Assessment**

- Acute aquatic toxicity : No toxicity at the limit of solubility  
Chronic aquatic toxicity : No toxicity at the limit of solubility

#### **ALCOHOL ETHOXYLATE:**

## **Ecotoxicology Assessment**

- Acute aquatic toxicity : Toxic to aquatic life.  
Chronic aquatic toxicity : Not classified based on available information.

## Persistence and degradability

## Product:

- Biodegradability** : Remarks: At natural pHs (>6), the polymer degrades due to the hydrolysis to more than 70% in 28 days.

**Physico-chemical removability** : Remarks: The product can be eliminated from water by abiotic processes, e.g. adsorption on activated sludge.

## Bioaccumulative potential

No data available

## Mobility in soil

No data available

### Other adverse effects

## Product:

- Additional ecological information** : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.  
Toxic to aquatic life.

## **SECTION 13. DISPOSAL CONSIDERATIONS**

### **Disposal methods**

- Waste from residues : Dispose of in accordance with all applicable local, state and

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federal regulations.

The product should not be allowed to enter drains, water courses or the soil.

Do not contaminate ponds, waterways or ditches with chemical or used container.

Send to a licensed waste management company.

- Contaminated packaging : Empty remaining contents.  
Dispose of as unused product.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

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**SECTION 14. TRANSPORT INFORMATION****International Regulations****IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**National Regulations****49 CFR**

Not regulated as a dangerous good

**Special precautions for user**

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

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**SECTION 15. REGULATORY INFORMATION****EPCRA - Emergency Planning and Community Right-to-Know Act****SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards**

- : Skin corrosion or irritation  
Serious eye damage or eye irritation

**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.

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

**The components of this product are reported in the following inventories:**

TCSI	: On the inventory, or in compliance with the inventory
TSCA	: All substances listed as active on the TSCA inventory
AICS	: On the inventory, or in compliance with the inventory
DSL	: All components of this product are on the Canadian DSL
ENCS	: Not in compliance with the inventory
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory

**TSCA list**

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

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**SECTION 16. OTHER INFORMATION****Further information**

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**Full text of H-Statements**

H227	: Combustible liquid.
H302	: Harmful if swallowed.
H304	: May be fatal if swallowed and enters airways.
H318	: Causes serious eye damage.

**Full text of other abbreviations**

Acute Tox.	: Acute toxicity
Asp. Tox.	: Aspiration hazard
Eye Dam.	: Serious eye damage
Flam. Liq.	: Flammable liquids
ACGIH	: USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL	: USA. NIOSH Recommended Exposure Limits
OSHA P0	: USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1	: USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
ACGIH / TWA	: 8-hour, time-weighted average

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NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek

NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday

OSHA P0 / TWA : 8-hour time weighted average

OSHA Z-1 / TWA : 8-hour time weighted average

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Sources of key data used to compile the Safety Data Sheet

Key literature references and sources of data

SOLENIS Internal data

SOLENIS internal data including own and sponsored test reports

The UNECE administers regional agreements implementing harmonised classification for labelling (GHS) and transport.

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 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



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other materials or in any process, unless specified in the text. This SDS has been prepared by the Solenis Environmental Health and Safety Department.

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