

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 16.11.2018

Version number 4

Revision: 16.11.2018

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**Trade name **ZM FM (Super Plasticiser (FM))**

Article number: 0251

**1.2 Relevant identified uses of the substance or mixture and uses advised against**

No further relevant information available.

**Sector of Use**

SU19 Building and construction work

SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)

**Product category**

PC20 Processing aids such as pH-regulators, flocculants, precipitants, neutralization agents

**Process category** PROC0 Other**Environmental release category** ERC10a Widespread use of articles with low release (outdoor)**Article category** AC0 Other**Application of the substance / the mixture** Concrete/Mortar admixtures**Uses advised against** No further relevant information available.**1.3 Details of the supplier of the safety data sheet****Manufacturer/Supplier:**

Remmers GmbH

Postfach 1255

D-49624 Lönigen / Germany

Tel.: +49(0)5432/83-0

Fax: +49(0)5432/3985

**Information department:**

Product Safety department: Tel.: Steve Dunn Tel.: +44 (0) 1293 594 010

E-Mail: sales@remmers.co.uk

Remmers (UK) Limited  
Unit B1 The Fleming Centre  
West Sussex RH10 9NN  
fon +44 (0) 1293 594 010  
fax +44 (0) 1293 594 037**1.4 Emergency telephone number:**

during working hours:

U.K.: Tel.: +44 (0) 1293 594 010

sales@remmers.co.uk

Head Office Germany: Tel.: +49 (0)5432 83 187

info@remmers.de

after working hours: Tel.: +49 (0)171 21 34 091

24h-Transport Emergency Contact Phone Number:

within USA and Canada: 1-800-424-9300

outside USA and Canada: 001-703-527-3887

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture****Classification according to Regulation (EC) No 1272/2008**

The product is not classified, according to the CLP regulation.

**2.2 Label elements****Labelling according to Regulation (EC) No 1272/2008** Void**Hazard pictograms** Void**Signal word** Void**Hazard statements** Void**2.3 Other hazards****Results of PBT and vPvB assessment****PBT:** Not applicable.

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vPvB: Not applicable.

## SECTION 3: Composition/information on ingredients

### 3.2 Chemical characterisation: Mixtures

**Dangerous components:** Void**Additional information** For the wording of the listed hazard phrases refer to section 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information** No special measures required.**After inhalation** No special requirements.**After skin contact** If skin irritation continues, consult a doctor.**After eye contact** Rinse opened eye for several minutes under running water.**After swallowing** Rinse out mouth and then drink plenty of water.

### 4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

### 4.3 Indication of any immediate medical attention and special treatment needed

No further relevant information available.

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

#### Suitable extinguishing agents

CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.**5.2 Special hazards arising from the substance or mixture** No further relevant information available.

### 5.3 Advice for firefighters

**Protective equipment:** No special measures required.

## SECTION 6: Accidental release measures

**6.1 Personal precautions, protective equipment and emergency procedures** Not required.

### 6.2 Environmental precautions:

Do not allow to enter the ground/soil.

Dilute with plenty of water.

### 6.3 Methods and material for containment and cleaning up:

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

### 6.4 Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

## SECTION 7: Handling and storage

**7.1 Precautions for safe handling** No special measures required.**Information about protection against explosions and fires:** The product is not flammable

### 7.2 Conditions for safe storage, including any incompatibilities

#### Storage

**Requirements to be met by storerooms and containers:** No special requirements.**Information on storage in a common storage facility:** none**Further information about storage conditions:** Protect from frost.**7.3 Specific end use(s)** No further relevant information available.

## SECTION 8: Exposure controls/personal protection

**Additional information about design of technical systems:** No further data; see item 7.

### 8.1 Control parameters

#### Components with limit values that require monitoring at the workplace:

The product does not contain any relevant quantities of materials with limit values that have to be monitored at the workplace.

**Additional information:** The lists that were valid during compilation were used as a basis.

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### 8.2 Exposure controls

#### Personal protective equipment

#### General protective and hygienic measures

Do not eat, drink or smoke while working.

Use skin protection cream for preventive skin protection.

Avoid close or long term contact with the skin.

**Respiratory equipment:** not required.

#### Protection of hands:

Protective gloves or protective skin cream.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

#### Material of gloves

Nitrile rubber, NBR

Chloroprene rubber, CR

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

#### Penetration time of glove material

The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

#### Eye protection:

Safety glasses

if there is a risk of splashes

**Body protection:** Light weight protective clothing

## SECTION 9: Physical and chemical properties

<b>9.1 Information on basic physical and chemical properties</b>	
<b>General Information</b>	
<b>Appearance:</b>	
<b>Form:</b>	Liquid
<b>Colour:</b>	Brown
<b>Odour:</b>	Weak, characteristic
<b>Odour threshold:</b>	Not determined.
<b>pH-value at 20 °C:</b>	8
<b>Change in condition</b>	
<b>Melting point/freezing point:</b>	Not determined
<b>Initial boiling point and boiling range:</b>	100 °C
<b>Flash point:</b>	Not applicable
<b>Inflammability (solid, gaseous)</b>	Not applicable.
<b>Ignition temperature:</b>	not applicable
<b>Decomposition temperature:</b>	Not determined.
<b>Self-inflammability:</b>	Product is not self-igniting.
<b>Explosive properties:</b>	Product is not explosive.
<b>Explosive Limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
<b>Vapour pressure at 20 °C:</b>	23 hPa
<b>Density at 20 °C:</b>	1.08 g/cm <sup>3</sup>
<b>Relative density</b>	Not determined.

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<b>Vapour density</b>	Not determined.
<b>Evaporation rate</b>	Not determined.
<b>Solubility in / Miscibility with Water:</b>	Fully miscible
<b>Distribution coefficient (n-octanol/water):</b>	Not determined.
<b>Viscosity:</b>	
<b>dynamic:</b>	Not determined.
<b>kinematic at 20 °C:</b>	10 s (DIN 53211/4)
<b>Solvent separation test</b>	< 3 %
<b>Organic solvents:</b>	0.0 %
<b>Solid content:</b>	17.0 %
<b>9.2 Other information</b>	No further relevant information available.

## SECTION 10: Stability and reactivity

**10.1 Reactivity** No further relevant information available.

### 10.2 Chemical stability

#### Thermal decomposition / conditions to be avoided:

No decomposition if handled and stored according to specifications.

**10.3 Possibility of hazardous reactions** No dangerous reactions known

**10.4 Conditions to avoid** No further relevant information available.

**10.5 Incompatible materials:** No further relevant information available.

**10.6 Hazardous decomposition products:** No dangerous decomposition products known

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

**Acute toxicity:** Based on available data, the classification criteria are not met.

**LD/LC50 values that are relevant for classification:** No further relevant information available.

**Skin corrosion/irritation:** Based on available data, the classification criteria are not met.

**Serious eye damage/irritation:** Based on available data, the classification criteria are not met.

**Sensitisation:** Based on available data, the classification criteria are not met.

**Germ cell mutagenicity:** Based on available data, the classification criteria are not met.

**Carcinogenicity:** Based on available data, the classification criteria are not met.

**Reproductive toxicity:** Based on available data, the classification criteria are not met.

**STOT-single exposure:** Based on available data, the classification criteria are not met.

**STOT-repeated exposure:** Based on available data, the classification criteria are not met.

**Aspiration hazard:** Based on available data, the classification criteria are not met.

## SECTION 12: Ecological information

### 12.1 Toxicity

**Aquatic toxicity:** No further relevant information available.

**12.2 Persistence and degradability** No further relevant information available.

**12.3 Bioaccumulative potential** No further relevant information available.

**12.4 Mobility in soil** No further relevant information available.

#### Additional ecological information:

##### General notes:

Do not allow product to reach ground water, bodies of water or sewage system.

Do not allow undiluted or larger quantities of the product to reach ground water, bodies of water or sewage system.

### 12.5 Results of PBT and vPvB assessment

**PBT:** Not applicable.

**vPvB:** Not applicable.

**12.6 Other adverse effects** No further relevant information available.

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## SECTION 13: Disposal considerations

**Recommendation**

Do not dispose of together with household garbage. Do not allow product to reach sewage system.

<b>European waste catalogue</b>	
17 01 01	concrete

**Uncleaned packaging:****Recommendation:** Disposal must be made according to official regulations.**Recommended cleaning agent:** Water, if necessary with cleaning agent.

## SECTION 14: Transport information

<b>14.1 UN-Number</b> ADR, ADN, IMDG, IATA	Void
<b>14.2 UN proper shipping name</b> ADR, ADN, IMDG, IATA	Void
<b>14.3 Transport hazard class(es)</b> ADR, ADN, IMDG, IATA Class	Void
<b>14.4 Packing group</b> ADR, IMDG, IATA	Void
<b>14.5 Environmental hazards:</b> Marine pollutant:	No
<b>14.6 Special precautions for user</b>	Not applicable.
<b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b>	Not applicable.
<b>Transport/Additional information:</b>	Not a hazardous good according to the above regulations.
<b>UN "Model Regulation":</b>	Void

## SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture****Directive 2012/18/EU****Named dangerous substances - ANNEX I** None of the ingredients is listed.**National regulations****Other regulations, limitations and prohibition ordinances**

Observe the usual protective measures when working and for storage.

**15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

## SECTION 16: Other information

Delivery specifications are found in the respective Technical Information Sheets.

This data is based on our present state of knowledge. However, it does not constitute a guarantee for any specific product features and does not establish a legally valid contractual relationship.

**Department issuing data specification sheet:** Product Safety department / EHS**Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

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PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative