

# Safety Data Sheet 1907 / 2006 / EG (e)

## Sotin 212 TW Decalcifier

Revision: 02.07.2019

Version: 01

### SECTION 1: Identification of the substance / mixture and of the company / undertaking

- 1.1 Product identifier** Sotin 212 TW Decalcifier
- 1.2 Relevant identified uses of the substance or mixture and uses advised against**
- 1.2.1 Relevant identified uses** Decalcifying agent.
- 1.2.2 Uses advised against** None known.
- 1.3 Details of the supplier of the safety data sheet**
- Company** Sotin GmbH & Co. KG  
Industriestr. 6  
55543 Bad Kreuznach / GERMANY  
Telefon + 49 (0)671-89489-0  
Fax + 49 (0)671-8948925  
Homepage [www.sotin.de](http://www.sotin.de)  
E-Mail [info@sotin.de](mailto:info@sotin.de)
- 1.4 Emergency Number** +49 (0)671-89489-0 (7:30 - 18:00)

### SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture**  
**Classification according to Regulation (EC) No 1272 / 2008 [CLP/GHS]**  
Skin Corr. 1B: H314 Causes severe skin burns and eye damage.  
Eye Dam.1: H318 Causes serious eye damage.  
Met. Corr.1: H290 May be corrosive to metals.
- 2.2 Label elements** The product is required to be labelled in accordance with regulation (EC) No 1272/2008 (CLP).
- Hazard pictogram(s)**
- 
- Signal word** DANGER
- Contains** Methanesulphonic acid
- Hazard Statements** H314 Causes severe skin burns and eye damage.
- Precautionary Statements** P101 If medical advice is needed, have product container or label at hand.  
P102 Keep out of reach of children.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P314 Get medical advice/attention if you feel unwell.  
P405 Store locked up.  
P501 Dispose of contents / container in accordance with local / national regulation.
- 2.3 Other Hazards**
- Physico-chemical hazards** Corrosive to metals.
- Results of PBT and vPvB assessment**  
PBT: Not applicable.  
vPvB: Not applicable.

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**SECTION 3: Composition / information on ingredients**

3.1 Substance

3.2 Mixture

Substance	EINECS/EG Reg.No	CAS	Weight [%]	Classification
Sulphamic acid	226-218-8	5329-14-6	1 - < 20	Eye Irrit.2, H319; Skin Irrit.2, H315; Aqu. Chron.3, H412
Methanesulphonic acid	200-898-6	75-75-2	5 - < 10	Skin Corr. 1B, H314
Phosphoric acid, mixed esters with Bu alc. and ethylene glycol	284-716-0 01-2119969464-25-xxxx	84962-20-9	1 - < 5	Met.Corr.1, H290; Eye Dam.1, H318

**Additional information**

Substances of Very High Concern – SVHC: Substances are not contained or are below 0,1%.

For full text of Hazard statements: See SECTION 16.

**SECTION 4: First aid measures**

**4.1 Description of first aid measures**

**General information**

Change soaked clothing.

**Following inhalation**

Ensure supply of fresh air. In the event of symptoms seek medical treatment.

**Following skin contact**

In case of contact with skin wash off with warm water. Consult a doctor if skin irritation persists.

**Following eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: get medical advice / attention.

**Following ingestion**

Get the medical advice. Rinse out mouth and give plenty of water to drink. Do not induce vomiting.

**4.2 Most important symptoms and effects, both acute and delayed physician's information / possible symptoms.**

Symptoms: corrosive effects.

**4.3 Indication of any immediate medical attention and special treatment needed treatment (advice to doctor)**

Symptomatically treat. Provide the Safety Data Sheet for the doctor.

**6.2 Environmental precautions**

Prevent spread over a wide area (e.g. by containment or oil barriers). Do not discharge into the drains / surface waters /groundwater.

**6.3 Methods and material for containment and cleaning up**

Pick up with absorbent material (e.g. acid binders). Dispose of absorbed material in accordance within the regulations.

**6.4 Reference to other sections**

See SECTION 8 + 13.

**SECTION 7: Handling and storage**

**7.1 Precautions for safe handling**

**Advice on safe handling**

Use only in well-ventilated areas. Avoid spilling or spraying in enclosed areas.

Do not eat, drink or smoke when using this product. Wash hands before breaks and after work. Use barrier skin cream.

Contaminated work clothing should not be allowed out of the workplace. Take off contaminated clothing and wash before reuse.

**7.2 Conditions for safe storage, including any incompatibilities Requirements for storage rooms and vessels**

Keep only in original container. Keep in an area equipped with acid resistant flooring. Prevent penetration into the ground.

**Advice on storage compatibility**

Do not store together with oxidizing agents. Do not store with alkalis.

**Further information on storage conditions**

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

**German storage class** 8B Non-combustible corrosive substances

**7.3 Specific end use(s)**

No relevant information available.

**SECTION 5: Firefighting measures**

**5.1 Extinguishing media**

**Suitable extinguishing media**

Product is not flammable. Fire extinguishing method of surrounding areas must be considered

**Unsuitable extinguishing media**

Full water jet.

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

In the event of fire the following can be released: Nitrogen oxides (NO<sub>x</sub>), Sulphur oxides (SO<sub>x</sub>).

**5.3 Advice for fire-fighters**

Use self-contained breathing apparatus.

**Additional information**

Fire residues and contaminated fire extinguishing water must be disposed in accordance with the local regulations.

**SECTION 8: Exposure controls / personal protection**

**8.1 Control parameters**

**Ingredients with occupational exposure limits to be monitored (EU / GB)**

Substance	[ml/m <sup>3</sup> ]	[mg/m <sup>3</sup> ]	Remarks
Methanesulphonic acid		0,7	Long-term value, Y,11

**Additional information**

The lists valid during the making were used as basis.

**SECTION 6: Accidental release measures**

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

High risk of slipping due to leakage / spillage of product. Use personal protective clothing.

**8.2 Exposure controls****Appropriate engineering controls**

Ensure adequate ventilation at the workplace.

**Personal protection equipment****Eye protection**

Safety glasses

**Hand protection**

The details concerned are recommendations. Please contact the glove supplier for further information.

In full contact: > 0,7mm, butyl-rubber, > 480min (EN 374).

In short contact: > 0,7mm, nitrile rubber, > 480min (EN 374).

**Personal Protection**

Protective work clothing.

**Other protection measures**

Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.

Avoid contact with eyes and skin. Do not inhale gases / vapours / aerosols.

**Respiratory protection**

Respiratory protection mask in the event of high concentrations.

Short term: filter apparatus: E-P2

**Thermal Hazards**

No information available.

**Information on environmental protection regulations**

Comply with applicable environmental regulations limiting discharge to air, water and soil.

**SECTION 9: Physical and chemical properties****9.1 Information on basic physical and chemical properties**

<b>Appearance</b>	liquid
<b>Colour</b>	clear, red
<b>Odour</b>	odourless
<b>Odour threshold</b>	not determined
<b>pH-value</b>	1
<b>Melting point / freezing point [°C]</b>	not determined
<b>Initial boiling point and boiling range [°C]</b>	> 100
<b>Flash point [°C]</b>	not applicable
<b>Evaporation rate</b>	not determined
<b>Ignition temperature [°C]</b>	not determined
<b>Flammability (solid, gas)</b>	not applicable
<b>Lower flammability or explosive limit [Vol%]</b>	not applicable
<b>Lower flammability or explosive limit [Vol%]</b>	not applicable
<b>Vapour pressure [hPa]</b>	not determined
<b>Vapour density</b>	not determined
<b>Relative density [g/cm<sup>3</sup>]</b>	1, 09

<b>Solubility in water</b>	miscible
<b>Organic solvents [%]</b>	not determined
<b>Partition coefficient: n-Octanol / water</b>	not determined
<b>Auto-ignition temperature [°C]</b>	not applicable
<b>Decomposition temperature</b>	not applicable
<b>Dynamic Viscosity at 20°C [mPas]</b>	not applicable
<b>Explosive properties</b>	not determined
<b>Oxidising properties</b>	not determined

**9.2 Other information**

No further relevant information available.

**SECTION 10: Stability and reactivity****10.1 Reactivity**

See SECTION 10.3.

**10.2 Chemical stability****Thermal decomposition / conditions to be avoided**

Stable under normal ambient conditions (ambient temperature).

**10.3 Possibility of hazardous reactions**

Reactions with alkali metals, oxidizing agents and with metals to form hydrogens.

**10.4 Conditions to avoid**

Strong heating.

**10.5 Incompatible materials**

Different metals.

**10.6 Hazardous decomposition products****Thermal decomposition**

No hazardous decomposition products known.

**SECTION 11: Toxicological information****11.1 Information on toxicological effects****Acute toxicity****ATE-mix**

Dermal >2000 mg/kg bw.

Oral > 2000 mg/kg bw.

**Relevant LD/LC50-Values****5329-14-6 Sulphamic acid**

Oral LD50 3160 mg/kg Rat

**75-75-2 Methanesulphonic acid**

Oral LD50 200 – 400 mg/kg bw Rat (IUCLID)

Dermal LD50 200 – 2000 mg/kg Rabbit (IUCLID)

**84962-20-9 Phosphoric acid, mixed esters with Bu alc. and ethylene glycol**

Dermal not irritant Rabbit (OECD404)

Oral LD50 > 2000 mg/kg Rat

**Primary irritant effect****Skin corrosion / irritation**

No information available.

**Serious eye damage / irritation**

No information available.

**Respiratory or skin sensitisation**

No information available.

**Summary of evaluation of the CMR properties****Germ cell mutagenicity**

No information available.

**Carcinogenicity**

No information available.

**Reproductive Toxicity**

No information available.

**Specific target organ toxicity – single exposure**

No information available.

**Specific target organ toxicity – repeated exposure**

No information available.

**Aspiration hazard**

No information available.

**Additional information**

Toxicological data of complete product are not available. The toxicity data listed pertaining to the ingredients are intended for those working in the medical professions, experts for occupational health and safety and toxicologists.

**SECTION 12: Ecological information****12.1 Toxicity****5329-14-6 Sulphamic acid**

LC50 / 96h 70, 3 mg/l (Pimephales promelas) IUCLID

EC10 / 16h &gt; 1000 mg/l (Pseudomonas putida)

**75-75-2 Methanesulphonic acid**

EC50 / 24h 1, 7 mg/l Daphnia magna (IUCLID)

**84962-20-9 Phosphoric acid, mixed esters with Bu alc. and ethylene glycol**

LC50 / 96h &gt; 100 mg/l Oncorhynchus mykiss

EC0 &gt; 100 mg/l Bakterien

EC0 / 48h &gt; 100mg/l Daphnia magna (OECD 202)

**12.2 Persistence and degradability****Behaviour in environment compartments**

No information available.

**Behaviour in sewage plant**

This product is an acid, before discharging sewage into sewage treatment plants, neutralization is usually required.

**Biological degradability**

The surfactants are contained.

**12.3 Bioaccumulative potential**

No further relevant information available.

**12.4 Mobility in soil**

No further relevant information available.

**12.5 Results of PBT and vPvB assessment**

PBT: Not applicable.

vPvB: Not applicable.

**12.6 Other adverse effects**

Ecological data of complete product are not available.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

**Product disposal (recommended)**

Coordinate disposal with the authorities if necessary. Dispose of as hazardous waste.

**Waste code (recommended)**

060106\* other acids

**Packaging disposal (recommended)**

Packaging that cannot be cleaned should be disposed of as for product. Contaminated packaging should be emptied as far as possible and after appropriate cleansing may be taken for reuse.

**Waste code (recommended)**

150110\* packaging containing residues of or contaminated by dangerous substances.

**SECTION 14: Transport information****14.1 UN-Number**

ADR, ADN, RID, IMDG, IATA

UN 1760

**14.2 UN proper shipping name**

Transport by land according to ADR / RID

UN 1760 Corrosive liquid, n.o.s. (Sulphamic acid, Methanesulphonic acid)

**IMDG**

UN 1760 Corrosive liquid, n.o.s. (Sulphamic acid, Methanesulphonic acid)

**IATA**

UN 1760 Corrosive liquid, n.o.s. (Sulphamic acid, Methanesulphonic acid)

**14.3 Transport hazard class(es)**

ADR/RID/ADN



Class 8

Label 8

**IMDG**

Class 8

Label 8

**IATA**

Class 8

Label 8

**14.4 Packing group**

III

**14.5 Environmental hazards**

Marine pollutant

No

**14.6 Special precautions for user**

Kemler Number: 80

EmS Number: F-A, S-B

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

Limited quantities (LQ)

5I

Excepted quantities (EQ)

Code: E1

Carriage category

3

Tunnel restriction code

E

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### IMDG

Limited quantities (LQ)

5l

Excepted quantities (EQ)

Code: E1

### UN "Model Regulation"

UN 1760 Corrosive liquid, n.o.s. (Sulphamic acid, Methanesulphonic acid)

PBT: Persistent, bioaccumulative and toxic substance  
REACH: Registration, Evaluation, Authorisation of Chemicals  
RID: Règlement concernant le transport international ferroviaire de marchandises dangereuses  
VOC: Volatile organic compounds  
vPvB: very Persistent and very Bioaccumulative

Aqu. Chron. 3: Hazardous to the aquatic environment – Chronic Hazard, Category 3  
Eye Dam. 1: Serious eye damage, Hazard Category 1  
Eye Irrit. 2: Eye irritation, Hazard Category 2  
Met. Corr. 1: Substance or mixture corrosive to metals, Hazard Category 1  
Skin Corr. 1B: Skin corrosion, Hazard Category 1B  
Skin Irrit. 2: Skin irritation, Hazard Category 2

## SECTION 15: Regulatory information

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

#### EEC – REGULATIONS

1671/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEG (2008/47/EG); 453/2010/EG.

#### TRANSPORT – REGULATIONS

ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2015)

#### NATIONAL REGULATIONS (GB)

EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3 / CHIP 4

#### Observe employment restrictions for people

Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.

**WGK 1 (Germany):** slightly water endangering

**VOC (1999/13/EG)**

0 %.

### 15.2 Chemical Safety Assessment

Chemical Safety Assessments for substances in this mixture were not carried out.

### 16.3 Further information

None.

These information are based on our present state of knowledge. They describe our product in view of the requirements for safety. They don't assure of certain properties of the product.

## SECTION 16: Other information

### 16.1 Hazard statements

H290 May be corrosive to metals.  
H314 Causes severe skin burns and eye damage.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

### 16.2 Shortcuts and acronyms

ADN: Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
ADR: Accord européen relatif au transport international des marchandises dangereuses par route  
CAS: Chemical Abstract Service  
CLP: Classification, Labelling and Packaging of Chemicals  
EINECS: European Inventory of Existing Commercial Chemical Substances  
GHS: Globally Harmonised System  
IATA: International Air Transport Association  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
IBC-Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IMDG: International Maritime Dangerous Goods Code  
IUCLID: International Uniform Chemical Information Database  
LC50: Lethal concentration, 50%  
LD50: Median lethal dose  
Lit.: Literature  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships