

Safety Data Sheet 1907 / 2006 / EG (e)
Sotin 212 Decalcifier - concentrate

Revision: 02.07.2019

Version: 01

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

1.1 Product identifier Sotin 212 Decalcifier - concentrate

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
E-Mail 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.

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_x), Sulphur oxides (SO_x).

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 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.

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 8: Exposure controls / personal protection

8.1 Control parameters

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

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

Additional information

The lists valid during the making were used as basis.

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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

Appearance	liquid
Colour	clear, red
Odour	odourless
Odour threshold	not determined
pH-value	1
Melting point / freezing point [°C]	not determined
Initial boiling point and boiling range [°C]	> 100
Flash point [°C]	not applicable
Evaporation rate	not determined
Ignition temperature [°C]	not determined
Flammability (solid, gas)	not applicable
Lower flammability or explosive limit [Vol%]	not applicable
Lower flammability or explosive limit [Vol%]	not applicable
Vapour pressure [hPa]	not determined
Vapour density	not determined
Relative density [g/cm³]	1, 09

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

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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 > 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 > 100 mg/l Oncorhynchus mykiss

EC0 > 100 mg/l Bakterien

EC0 / 48h > 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), 8, III

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 %.

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.

15.2 Chemical Safety Assessment

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

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