

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.10.2020

Version number 9

Revision: 29.10.2020

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

1.1 Product identifier

- Trade name: **Rust Remover Marble**
- Article number: 10899, 10796/10797, 11048, 11049
- UFI: 7VRP-4DEM-S01G-4R9G

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

No further relevant information available.

Application of the substance / the mixture

Cleaning agent/ Cleaner

1.3 Details of the supplier of the safety data sheet

- Manufacturer/Supplier: AKEMI chemisch technische Spezialfabrik GmbH
Lechstrasse 28
D 90451 Nürnberg
- Tel. +49(0)911-642960
Fax. +49(0)911-644456
e-mail info@akemi.de

Further information obtainable from:

Laboratory

1.4 Emergency telephone number:

Product Safety Department AKEMI chemisch technische Spezialfabrik GmbH
Tel. +49(0)911-64296-59
Reachable during the following office hours:
Monday – Thursday from 07:30 a.m. to 16:30 p.m.
Friday from 07:30 a.m. to 13:30 p.m.
+44 (171) 635 91 91
National Poison Inform. Centre
Medical Toxicology Unit
Avalonley Road
London SE14 5ER

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

- Classification according to Regulation (EC) No 1272/2008



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Skin Sens. 1 H317 May cause an allergic skin reaction.

2.2 Label elements

- Labelling according to Regulation (EC) No 1272/2008
- Hazard pictograms

The product is classified and labelled according to the CLP regulation.



GHS07

Signal word

Warning

Hazard-determining components of labelling:

sodium mercaptoacetate
2-methyl-2H-isothiazol-3-one

Hazard statements

H302 Harmful if swallowed.
H317 May cause an allergic skin reaction.

Precautionary statements

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P103 Read carefully and follow all instructions.
P261 Avoid breathing mist/vapours/spray.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

(Contd. on page 2)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.10.2020

Version number 9

Revision: 29.10.2020

Trade name: Rust Remover Marble

(Contd. of page 1)

P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.

P302+P352 IF ON SKIN: Wash with plenty of water.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P405 Store locked up.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards

· Results of PBT and vPvB assessment

· PBT: Not applicable.· vPvB: Not applicable.**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation: Mixtures**· Description: Mixture of substances listed below with nonhazardous additions.· Dangerous components:

CAS: 367-51-1 EINECS: 206-696-4 Reg.nr.: 01-2119968564-24	sodium mercaptoacetate ----- ☠ Acute Tox. 3, H301; Acute Tox. 3, H311 ☠ Met. Corr. 1, H290 ☠ Skin Sens. 1, H317	12.5-25%
CAS: 1336-21-6 EINECS: 215-647-6 Index number: 007-001-01-2 Reg.nr.: 01-2119488876-14	ammonia ----- ☠ Skin Corr. 1B, H314 ☠ Aquatic Acute 1, H400 ☠ STOT SE 3, H335	<1%
CAS: 2682-20-4 EINECS: 220-239-6 Index number: 613-326-00-9 Reg.nr.: 01-2120764690-50	2-methyl-2H-isothiazol-3-one ----- ☠ Acute Tox. 3, H301; Acute Tox. 3, H311; Acute Tox. 2, H330 ☠ Skin Corr. 1B, H314; Eye Dam. 1, H318 ☠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410 ☠ Skin Sens. 1A, H317; STOT SE 3, H335	<1%

· Regulation (EC) No 648/2004 on detergents / Labelling for contents

BENZISOTHIAZOLINONE, METHYLISOTHIAZOLINONE

<5%

· 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:

Immediately remove any clothing soiled by the product.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· After inhalation:

Supply fresh air and to be sure call for a doctor.

In case of unconsciousness place patient stably in side position for transportation.

· After skin contact:

Immediately wash with water and soap and rinse thoroughly.

· After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

· After swallowing:

Call for a doctor immediately.

4.2 Most important symptoms and effects, both acute and delayed

Gastric or intestinal disorders

Acidosis

· Information for doctor:

Symptoms in intoxication with acids:

In case of oral intake symptoms depend on concentration and acidity of incorporated acid, and are corrosive eschar in mouth and throat, vomiting, severe dysphagia, shock and coma. Therapy measures: drink plenty of water. Administer 20 g Magnesia usta in milk oral; no hydrogen carbonate oral; pain relief measures; in indication of acidosis infusion of sodium hydrogencarbonate solution(5%).

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.10.2020

Version number 9

Revision: 29.10.2020

Trade name: Rust Remover Marble

(Contd. of page 2)

· **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:

CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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

Formation of toxic gases is possible during heating or in case of fire.

· **5.3 Advice for firefighters**

· Protective equipment:

Do not inhale explosion gases or combustion gases.
Mount respiratory protective device.

* **SECTION 6: Accidental release measures**

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

Particular danger of slipping on leaked/spilled product.
Wear protective equipment. Keep unprotected persons away.

· **6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

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

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

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

· **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 disposal information.

* **SECTION 7: Handling and storage**

· **7.1 Precautions for safe handling**

Keep receptacles tightly sealed.
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

· Information about fire - and explosion protection:

No special measures required.

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

· Storage:

· Requirements to be met by storerooms and receptacles:

Store only in the original receptacle.

· Information about storage in one common storage facility:

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

· Further information about storage conditions:

Protect from frost.

· Storage class:

8 B

· **7.3 Specific end use(s)**

No further relevant information available.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.10.2020

Version number 9

Revision: 29.10.2020

Trade name: Rust Remover Marble

(Contd. of page 3)

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

· **8.1 Control parameters**

· Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNELs

367-51-1 sodium mercaptoacetate

Dermal	DNEL (Langzeit-wiederholt)	2.06 mg/kg bw/day (ARB)
Inhalative	DNEL (Langzeit-wiederholt)	1.41 mg/m ³ Air (ARB)

· PNECs

367-51-1 sodium mercaptoacetate

PNEC (wässrig)	0.0038 mg/l (MW)
	0.0038 mg/l (SW)

· Additional information: The lists valid during the making were used as basis.

· **8.2 Exposure controls**

· Personal protective equipment:
 · General protective and hygienic measures:

Do not eat, drink, smoke or sniff while working.
 Use skin protection cream for skin protection.
 Clean skin thoroughly immediately after handling the product.
 Keep away from foodstuffs, beverages and feed.
 Immediately remove all soiled and contaminated clothing
 Wash hands before breaks and at the end of work.
 Do not inhale gases / fumes / aerosols.

· Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
 Preventive skin protection by use of skin-protecting agents is recommended.

· Protection of hands: After use of gloves apply skin-cleaning agents and skin cosmetics.
 Skin protection agent recommendation for preventive skin shelter without use of protective gloves:

STOKODERM (<http://www.stoko.com>)

Skin protection agent recommendation for preventive skin shelter in application and combination of protective gloves:

STOKO EMULSION (<http://www.stoko.com>)

Skin protection recommendation for skin cleaning after product handling:

FRAPANTOL (<http://www.stoko.com>)

Skin protection agent recommendation for skin aftercare:

STOKO VITAN (<http://www.stoko.com>)

The protection gloves to be used have to comply with the specifications of the directive 89/686/EC and the directive derived decree EN374, respectively, e.g. the above listed protection glove type. The mentioned permeation times' data were generated and verified with material samples of the recommended protection glove type in the scope of laboratory analyses of the company KCL GmbH in compliance with EN374.

This recommendation refers exclusively to the material safety data sheet referenced product delivered by Akemi and the indicated field of application. In case of product dilution or in case of mixture with different substances or chemicals, and in condition of EN374 deviation the producer of CE-approved protection gloves must be contacted for detailed information (e.g., KCL GmbH, Germany, 36124 Eichenzell, internet: <http://www.kcl.de>).

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.10.2020

Version number 9

Revision: 29.10.2020

Trade name: Rust Remover Marble

(Contd. of page 4)

**Protective gloves**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves

Butyl rubber, BR
Nitrile rubber, NBR
Fluorocarbon rubber (Viton)
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

Value for the permeation: Level \leq 6; 480 min

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

· For the permanent contact gloves made of the following materials are suitable:

Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)
Nitrile rubber, NBR
Camatril (KCL, Art_No. 730, 731, 732, 733)
Fluorocarbon rubber (Viton)
Vitoject (KCL, Art_No. 890)
Chloroprene rubber, CR
Camapren (KCL, Art_No. 720, 722, 726)

· As protection from splashes gloves made of the following materials are suitable:

Nitrile rubber, NBR
Camatril (KCL, 730, 731, 732, 733)
Chloroprene rubber, CR
Camapren (KCL, Art_No. 720, 722, 726)

· Not suitable are gloves made of the following materials:

Leather gloves
Strong material gloves

· Eye protection:

Goggles recommended during refilling

· Body protection:

Protective work clothing

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information· Appearance:

· <u>Form:</u>	Liquid
· <u>Colour:</u>	Yellow-brown
· <u>Odour:</u>	sulfidic
· <u>Odour threshold:</u>	Not determined.

· pH-value at 20 °C:

9

· Change in condition

· <u>Melting point/freezing point:</u>	Undetermined.
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(Contd. on page 6)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.10.2020

Version number 9

Revision: 29.10.2020

Trade name: Rust Remover Marble

(Contd. of page 5)

<u>Initial boiling point and boiling range:</u> 100 °C	
· <u>Flash point:</u>	Not applicable.
· <u>Decomposition temperature:</u>	Not determined.
· <u>Auto-ignition temperature:</u>	Product is not selfigniting.
· <u>Explosive properties:</u>	Product does not present an explosion hazard.
· <u>Explosion limits:</u>	
<u>Lower:</u>	Not determined.
<u>Upper:</u>	Not determined.
· <u>Vapour pressure at 20 °C:</u>	23 hPa
· <u>Density at 20 °C:</u>	1.1 g/cm ³
· <u>Relative density</u>	Not determined.
· <u>Vapour density</u>	Not determined.
· <u>Evaporation rate</u>	Not determined.
· <u>Solubility in / Miscibility with water:</u>	Fully miscible.
· <u>Partition coefficient: n-octanol/water:</u>	Not determined.
· <u>Viscosity:</u>	
<u>Dynamic:</u>	Not determined.
<u>Kinematic:</u>	Not determined.
· <u>Solvent content:</u>	
<u>Water:</u>	81.3 %
· 9.2 Other information	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 used according to specifications.
- **10.3 Possibility of hazardous reactions**
 - Reacts with alkali and metals.
 - Reacts with strong oxidising agents.
 - Reacts with metals forming hydrogen.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:**
 - Phosphorus oxides (e.g. P₂O₅)
 - Irritant gases/vapours

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- Acute toxicity Harmful if swallowed.

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	272-1,090 mg/kg (rat)
Dermal	LD50	5,449-10,897 mg/kg (rat)

367-51-1 sodium mercaptoacetate

Oral	LD50	50-200 mg/kg (rat) (OECD 423)
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(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.10.2020

Version number 9

Revision: 29.10.2020

Trade name: Rust Remover Marble

(Contd. of page 6)

Dermal	NOEL	75 mg/kg (rat) (OECD 414)
	NOAEL-Werte	20 mg/kg (rat) (OECD 421)
	LD50	1,000-2,000 mg/kg (rat)
	NOEL	≥65 mg/kg (rabbit)
	LC50/48h	100 mg/kg (rat) 880 mg/l (Leuciscus idus) (DIn 38412/15)

2682-20-4 2-methyl-2H-isothiazol-3-one

Oral	LD50	100 mg/kg (ATE)
Dermal	LD50	300 mg/kg (ATE)
Inhalative	LC50/4 h	0.5 mg/l (ATE)

- Primary irritant effect:
- 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.
- Respiratory or skin sensitisation May cause an allergic skin reaction.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
- 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:

367-51-1 sodium mercaptoacetate

EC50/48h	38 mg/l (daphnia magna) (Methode: 84/449/EWG)
EC50/72h	13 mg/l (Pseudokirchneriella subcapitata) (OECD 201)
LC50/96h	>100 mg/l (Oncorhynchus mykiss) (OECD 203)

1336-21-6 ammonia

EC50	2 mg/l (Photobac. phosphoreum)
EC50/48h	25.4 mg/l (daphnia magna)
LC50/96h	0.26-4.6 mg/l (Iepomis macrochirus) 0.16-1.1 mg/l (Oncorhynchus mykiss) 0.75-3.4 mg/l (Pimephales promelas)

2682-20-4 2-methyl-2H-isothiazol-3-one

EC50	34.6 mg/l (BES) (DIN 38412-3)
EC50/48h	1.6 mg/l (daphnia magna)
EC50/16h	2.3 mg/l (Pseudomonas putida)
EC20/3h	2.8 mg/l (BES) (DIN 38412-3)
EC50/72h	0.157 mg/l (Pseudokirchneriella subcapitata)
LC50/96h	6 mg/l (rainbow trout)

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 undiluted product or large quantities of it to reach ground water, water course or sewage system.

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.10.2020

Version number 9

Revision: 29.10.2020

Trade name: Rust Remover Marble

(Contd. of page 7)

Must not reach sewage water or drainage ditch undiluted or unneutralised.
Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

· **12.5 Results of PBT and vPvB assessment**

· PBT: Not applicable.

· vPvB: Not applicable.

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

SECTION 13: Disposal considerations

· **13.1 Waste treatment methods**

· Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· Uncleaned packaging:

· Recommendation: Empty contaminated packagings thoroughly. They may be recycled after thorough and proper cleaning.

· Recommended cleansing agents: Water, if necessary together with cleansing agents.

SECTION 14: Transport information

· **14.1 UN-Number**

· ADR, IMDG, IATA UN1760

· **14.2 UN proper shipping name**

· ADR 1760 CORROSIVE LIQUID, N.O.S. (sodium mercaptoacetate)

· IMDG, IATA CORROSIVE LIQUID, N.O.S. (sodium mercaptoacetate)

· **14.3 Transport hazard class(es)**

· ADR



· Class 8 (C9) Corrosive substances.

· Label 8

· IMDG, IATA



· Class 8 Corrosive substances.

· Label 8

· **14.4 Packing group**

· ADR, IMDG, IATA III

· **14.5 Environmental hazards:**

· Marine pollutant: No

· **14.6 Special precautions for user**

· Hazard identification number (Kemler code): Warning: Corrosive substances.

· EMS Number: 80

· Stowage Category F-A,S-B

· Stowage Code A

· Stowage Code SW2 Clear of living quarters.

(Contd. on page 9)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.10.2020

Version number 9

Revision: 29.10.2020

Trade name: Rust Remover Marble

(Contd. of page 8)

· **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code**

Not applicable.

· Transport/Additional information:

· ADR

- Limited quantities (LQ)
- Excepted quantities (EQ)

5L

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· Transport category

3

· Tunnel restriction code

E

· IMDG

- Limited quantities (LQ)
- Excepted quantities (EQ)

5L

Code: E1

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 1000 ml

· UN "Model Regulation":

UN 1760 CORROSIVE LIQUID, N.O.S. (SODIUM MERCAPTOACETATE), 8, III

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.

· REGULATION (EC) No 1907/2006 ANNEX XVII

Conditions of restriction: 3

· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II

None of the ingredients is listed.

· National regulations:

· Waterhazard class:

Water hazard class 1 (Self-assessment): slightly hazardous for water.

· VOC EU

0.0 g/l

· **15.2 Chemical safety assessment:**

A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases

H290 May be corrosive to metals.
 H301 Toxic if swallowed.
 H311 Toxic in contact with skin.
 H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H318 Causes serious eye damage.
 H330 Fatal if inhaled.
 H335 May cause respiratory irritation.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.

· Recommended restriction of use

refer to Technical Data Sheet (TDS)

· Department issuing SDS:

Laboratory

· Contact:

Dieter Zimmermann

(Contd. on page 10)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 29.10.2020

Version number 9

Revision: 29.10.2020

Trade name: Rust Remover Marble· Abbreviations and acronyms:

(Contd. of page 9)

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)
 DNEL: Derived No-Effect Level (REACH)
 PNEC: Predicted No-Effect Concentration (REACH)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 Met. Corr. 1: Corrosive to metals – Category 1
 Acute Tox. 3: Acute toxicity - oral – Category 3
 Acute Tox. 4: Acute toxicity - oral – Category 4
 Acute Tox. 2: Acute toxicity - inhalation – Category 2
 Skin Corr. 1B: Skin corrosion/irritation – Category 1B
 Eye Dam. 1: Serious eye damage/eye irritation – Category 1
 Skin Sens. 1: Skin sensitisation – Category 1
 Skin Sens. 1A: Skin sensitisation – Category 1A
 STOT SE 3: Specific target organ toxicity (single exposure) – Category 3
 Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1
 Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

· * Data compared to the previous version altered.

Adaptation in accordance with REACH directive 1907/2006/EC