



Reactive Rust Remover

Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.
Issue date: 8/9/2022 Revision date: 8/9/2022 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture
Product name : Reactive Rust Remover
Product code : Not available

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Rust Remover

1.3. Supplier

Manufacturer

Koch-Chemie GmbH
Einsteinstr. 42
D-59423 Unna
Germany
T 49-2303-9-86-70-14
info@koch-chemie.com

Distributor

Koch-Chemie (USA) LLC
5512 Atlanta Highway
Alpharetta, Georgia 30004
United States of America
T+1 678-974-1269
salesusa@koch-chemie.com

1.4. Emergency telephone number

Emergency number : +1 872 5888271(KCC)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Met. Corr. 1
Acute Tox. 4 (Oral)
Skin Irrit. 2
Eye Irrit. 2A
Skin Sens. 1

May be corrosive to metals
Harmful if swallowed
Causes skin irritation
Causes serious eye irritation
May cause an allergic skin reaction

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Warning
Hazard statements (GHS US) : May be corrosive to metals
Harmful if swallowed
Causes skin irritation
May cause an allergic skin reaction
Causes serious eye irritation



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Precautionary statements (GHS US)	<p>: Keep only in original container.</p> <p>Avoid breathing dust, fume, gas, mist, spray, vapors.</p> <p>Wash face, hands thoroughly after handling.</p> <p>Do not eat, drink or smoke when using this product.</p> <p>Contaminated work clothing must not be allowed out of the workplace.</p> <p>Wear eye protection, face protection, protective clothing, protective gloves.</p> <p>If swallowed: Call a poison center or doctor if you feel unwell.</p> <p>Rinse mouth.</p> <p>If on skin: Wash with plenty of water.</p> <p>Take off contaminated clothing and wash it before reuse.</p> <p>If skin irritation or rash occurs: Get medical advice/attention.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>If eye irritation persists: Get medical advice/attention.</p> <p>Absorb spillage to prevent material-damage.</p> <p>Store in corrosive resistant container with a resistant inner liner.</p> <p>Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.</p>
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2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%
Acetic acid, mercapto-, monoammonium salt	CAS-No.: 5421-46-5	15 - 40
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, C12-14-alkyl ethers, sodium salts	CAS-No.: 68891-38-3	7 - 30
2-Bromo-2-nitro-1,3-propanediol	CAS-No.: 52-51-7	1 - 5
Sodium p-cumenesulphonate	CAS-No.: 15763-76-5	1 - 5
Benzaldehyde	CAS-No.: 100-52-7	1 - 5

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
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First-aid measures after skin contact	: IF ON SKIN: Wash with plenty of Water. Take off contaminated clothing and wash it before reuse. If skin irritation or rash occurs: Get medical advice/attention.
First-aid measures after eye contact	: IF IN EYES: 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.
First-aid measures after ingestion	: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Call a POISON CENTER or doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.

4.3. Immediate medical attention and special treatment, if necessary

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media	: carbon dioxide (CO ₂), dry chemical powder, water spray. Foam.
Unsuitable extinguishing media	: Do not use water jet.

5.2. Specific hazards arising from the chemical

Fire hazard	: Products of combustion may include, and are not limited to: oxides of carbon. Sulphur oxides. Oxides of nitrogen. irritating vapors.
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5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions	: Cool closed containers exposed to fire with water spray.
Protection during firefighting	: Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.
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6.1.1. For non-emergency personnel

Emergency procedures	: Evacuate unnecessary personnel. Provide adequate ventilation.
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6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

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6.3. Methods and material for containment and cleaning up

For containment	: Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
Methods for cleaning up	: Sweep or shovel spills into appropriate container for disposal. Absorb spillage to prevent material-damage. Provide ventilation.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed	: May be corrosive to metals.
Precautions for safe handling	: Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapors/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.
Hygiene measures	: Wash contaminated clothing before reuse. Always wash hands after handling the product. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep out of the reach of children. Keep container tightly closed. Keep only in original container. Store in a cool, well-ventilated place. Protect from freezing.
Incompatible materials	: Refer to Section 10 on Incompatible Materials.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Reactive Rust Remover	
No additional information available	
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, C12-14-alkyl ethers, sodium salts (68891-38-3)	
No additional information available	
2-Bromo-2-nitro-1,3-propanediol (52-51-7)	
No additional information available	
Sodium p-cumenesulphonate (15763-76-5)	
No additional information available	
Benzaldehyde (100-52-7)	
USA - AIHA - Occupational Exposure Limits	
WEEL TWA [ppm]	2 ppm
WEEL STEL [ppm]	4 ppm (15-min. STEL)
AIHA chemical category	Skin sensitizer



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Acetic acid, mercapto-, monoammonium salt (5421-46-5)

No additional information available

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers. Provide readily accessible eye wash stations and safety showers.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Wear suitable gloves resistant to chemical penetration. butyl rubber gloves. Neoprene. nitrile rubber gloves

Permeation	Thickness (mm)	Penetration
6 (> 480 minutes)	> 0.5 mm	> 480 min

Eye protection:

Wear eye/face protection

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: No data available.
Color	: Reddish
Odor	: Characteristic
Odor threshold	: No data available
pH	: No data available
pH solution	: 7 – 8
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: 1.12

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Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: Product is not explosive.
Oxidizing properties	: Not oxidizing.

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use. May be corrosive to metals.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Incompatible materials.

10.5. Incompatible materials

Strong bases. Strong oxidizing agents. Corrosive to metals.

10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. Sulphur oxides. Oxides of nitrogen. irritating fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Reactive Rust Remover	
ATE US (oral)	311.753 mg/kg body weight
Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, C12-14-alkyl ethers, sodium salts (68891-38-3)	
LD50 oral rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg

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2-Bromo-2-nitro-1,3-propanediol (52-51-7)	
LD50 oral rat	180 mg/kg
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 inhalation rat	> 5 g/m³ (Exposure time: 6 h)
ATE US (oral)	180 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
Sodium p-cumenesulphonate (15763-76-5)	
LD50 oral rat	≥ 3346 mg/kg body weight Animal: rat, Guideline: EPA OTS 798.1175 (Acute Oral Toxicity), 95% CL: 3196 - 3503
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	> 6.41 mg/l (Exposure time: 232 min)
Benzaldehyde (100-52-7)	
LD50 oral rat	1292 mg/kg
LD50 dermal rabbit	> 1250 mg/kg
LC50 inhalation rat	1 – 5 mg/l air Animal: rat, Guideline: OECD Guideline 436 (Acute Inhalation Toxicity: Acute Toxic Class Method)
ATE US (oral)	1292 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
Acetic acid, mercapto-, monoammonium salt (5421-46-5)	
LD50 oral rat	3500 mg/kg
LD50 dermal rat	> 2000 mg/kg
ATE US (oral)	100 mg/kg body weight
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Sodium p-cumenesulphonate (15763-76-5)	
NOAEL (chronic,oral,animal/female,2 years)	≥ 60 mg/kg body weight Animal: rat, Animal sex: female, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: other:
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
2-Bromo-2-nitro-1,3-propanediol (52-51-7)	
STOT-single exposure	May cause respiratory irritation.
Benzaldehyde (100-52-7)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: Not classified

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Sodium p-cumenesulphonate (15763-76-5)	
NOAEL (oral, rat, 90 days)	1000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 407 (Repeated Dose 28-Day Oral Toxicity Study in Rodents)
Benzaldehyde (100-52-7)	
LOAEL (oral, rat, 90 days)	300 mg/kg body weight Animal: other: rat and mouse
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: Causes skin irritation. Symptoms may include redness, drying, defatting and cracking of the skin. May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
Symptoms/effects after ingestion	: Harmful if swallowed. May cause gastrointestinal irritation, nausea, vomiting and diarrhea.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : May cause long-term adverse effects in the aquatic environment.

Poly(oxy-1,2-ethanediyl), .alpha.-sulfo-.omega.-hydroxy-, C12-14-alkyl ethers, sodium salts (68891-38-3)	
LC50 - Fish [1]	7.1 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	7.4 mg/l Test organisms (species): Daphnia magna
NOEC (chronic)	0.27 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	0.14 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '28 d'
2-Bromo-2-nitro-1,3-propanediol (52-51-7)	
EC50 - Crustacea [1]	1.4 mg/l Test organisms (species): Daphnia magna
LOEC (chronic)	0.88 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	0.27 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	21.5 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '49 d'
Sodium p-cumenesulphonate (15763-76-5)	
LC50 - Fish [1]	≥ 1580 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 1020 mg/l Test organisms (species): Daphnia magna
Benzaldehyde (100-52-7)	
LC50 - Fish [1]	10.6 – 11.8 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
LC50 - Fish [2]	12.69 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
NOEC chronic fish	0.12 mg/l Test organisms (species): Pimephales promelas Duration: '7 d'



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12.2. Persistence and degradability

Reactive Rust Remover

Persistence and degradability	Not established.
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12.3. Bioaccumulative potential

Reactive Rust Remover

Bioaccumulative potential	Not established.
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Benzaldehyde (100-52-7)

BCF - Fish [1]	(no significant bioaccumulation)
Partition coefficient n-octanol/water	1.48 (at 20 °C)

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other information : No other effects known.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

DOT NA No	: UN1760
UN-No. (IMDG)	: 1760
UN-No. (IATA)	: 1760

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Corrosive liquids, n.o.s. (ammonium-mercaptoacetate)
Proper Shipping Name (IMDG)	: CORROSIVE LIQUID, N.O.S. (ammonium-mercaptoacetate)
Proper Shipping Name (IATA)	: Corrosive liquid, n.o.s. (ammonium-mercaptoacetate)

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	: 8
Hazard labels (DOT)	: 8

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IMDG

Transport hazard class(es) (IMDG) : 8
Hazard labels (IMDG) : 8



IATA

Transport hazard class(es) (IATA) : 8
Hazard labels (IATA) : 8



14.4. Packing group

Packing group (DOT) : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

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

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Sodium p-cumenesulphonate

CAS-No. 15763-76-5

15.2. International regulations

No additional information available



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15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012.

Issue date : 08/09/2022
Revision date : 08/09/2022
Other information : None.
Prepared by : Nexreg Compliance Inc.
www.Nexreg.com



Full text of H-phrases

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Met. Corr. 1	Corrosive to metals Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization, Category 1

Safety Data Sheet (SDS), USA

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