

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2019

Version number 6

Revision: 05.04.2019

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

1.1 Product identifier

- Trade name: **Anti-Slide R9**
- Article number: 11861, 11862, 11864/11865

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

- Application of the substance / the mixture: Discharging agent

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



GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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.



GHS05 GHS07

- Signal word

Danger

- Hazard-determining components of labelling:

ammonium bifluoride
Aliphatic alcohols, C13-C15, largely linear, ethoxylated
phosphoric acid
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.

- Hazard statements

(Contd. on page 2)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2019

Version number 6

Revision: 05.04.2019

Trade name: Anti-Slide R9

(Contd. of page 1)








- Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312	IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
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 [or 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.
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:

	non-ionic surfactants  Eye Dam. 1, H318  Acute Tox. 4, H302	1-5%
CAS: 1341-49-7 EINECS: 215-676-4 Index number: 009-009-00-4 Reg.nr.: 01-2119489180-38-xxxx	ammonium bifluoride  Acute Tox. 3, H301  Skin Corr. 1B, H314	<10%
CAS: 112-34-5 EINECS: 203-961-6 Index number: 603-096-00-8 Reg.nr.: 01-2119475104-44-xxxx 02-2119751533-40-0000	2-(2-butoxyethoxy)ethanol  Eye Irrit. 2, H319	1-5%
CAS: 7664-38-2 EINECS: 231-633-2 Index number: 015-011-00-6 Reg.nr.: 01-2119485924-24	phosphoric acid  Met. Corr. 1, H290; Skin Corr. 1B, H314; Eye Dam. 1, H318  Acute Tox. 4, H302	1-5%

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

(Contd. on page 3)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2019

Version number 6

Revision: 05.04.2019

Trade name: Anti-Slide R9

(Contd. of page 2)

- After skin contact: Immediately wash with water and soap and rinse thoroughly.
Immediately rinse with water.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- Information for doctor: Inhalation of hydrogen halides (e.g., hydrogen fluoride, HF): coughing, throttling; after symptom free interval fever, cyanosis (blue colouring of skin and mucous membranes due to lack of oxygen saturation of blood, lung edema.
Therapy in inhalation of HF: glucokortikoids as inhaler and intravenous.
Local effects of hydrohalogenous acids (e.g., HF): corrosion, in areas of eyes danger of sight loss, severe pain.
Therapy in skin corrosion: immediate rinsing of skin and mucous membranes with plenty of water; injection/infusion of
1) Hyaluronidase in Procain (2%),
2) Injection of a 1:1 mixture of Procain (4%) and calcium gluconate (20%) solution
3) initially parenteral and local application of glucocorticoids, followed by oral or local administration.
Acute poisoning: corrosive necroses, body pain, nausea, diarrhea, cramps, shock conditions.
In case of poisoning/exposition: immediate hospital admission, gastric rinsing with calcium chloride solution (1%), if indicated with suspension of calcium carbonate; domestic poisoning: administration of milk, provoke vomiting; application of calcium gluconate intravenous under control of hematology parameters.
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%).
- **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**
Wear protective equipment. Keep unprotected persons away.

(Contd. on page 4)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2019

Version number 6

Revision: 05.04.2019

Trade name: Anti-Slide R9

(Contd. of page 3)

- **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.
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).
Use neutralising agent.
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.
- **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:** Provide acid-resistant floor.
- **Information about storage in one common storage facility:** Do not store together with oxidising and acidic materials as well as heavy-metal compounds.
- **Further information about storage conditions:** Protect from frost.
Keep container tightly sealed.
- **7.3 Specific end use(s)** No further relevant information available.

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:**

112-34-5 2-(2-butoxyethoxy)ethanol

WEL	Short-term value: 101.2 mg/m ³ , 15 ppm
	Long-term value: 67.5 mg/m ³ , 10 ppm

7664-38-2 phosphoric acid

WEL	Short-term value: 2 mg/m ³
	Long-term value: 1 mg/m ³

- **DNELs**

1341-49-7 ammonium bifluoride

Oral	DNEL (Kurzzeit-akut)	0.015 mg/kg bw/day (BEV)
	DNEL (Langzeit-wiederholt)	0.015 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	3.8 mg/m ³ Air (ARB)
	DNEL (Langzeit-wiederholt)	2.3 mg/m ³ Air (ARB)
		0.045 mg/m ³ Air (BEV)

(Contd. on page 5)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2019

Version number 6

Revision: 05.04.2019

Trade name: Anti-Slide R9

(Contd. of page 4)

112-34-5 2-(2-butoxyethoxy)ethanol

Oral	DNEL (Langzeit-wiederholt)	1.3 mg/kg bw/day (BEV)
Dermal	DNEL (Langzeit-wiederholt)	20 mg/kg bw/day (ARB)
		10 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	14 mg/m ³ Air (ARB)
		7.5 mg/m ³ Air (BEV)
	DNEL (Langzeit-wiederholt)	67.5 mg/m ³ Air (ARB)
		34 mg/m ³ Air (BEV)

7664-38-2 phosphoric acid

Dermal	DNEL (Langzeit-wiederholt)	0.1 mg/kg bw/day (BEV)
Inhalative	DNEL (Kurzzeit-akut)	2 mg/m ³ Air (ARB)
	DNEL (Langzeit-wiederholt)	1-10.7 mg/m ³ Air (ARB)
		0.36-4.57 mg/m ³ Air (BEV)

· PNECs

1341-49-7 ammonium bifluoride

PNEC (wässrig)	76 mg/l (KA)
	1.3 mg/l (SW)
PNEC (fest)	22 mg/kg Trockengew (BO)

112-34-5 2-(2-butoxyethoxy)ethanol

PNEC (wässrig)	200 mg/l (KA)
	0.1 mg/l (MW)
	1 mg/l (SW)
PNEC (fest)	0.4 mg/kg Trockengew (BO)
	0.4 mg/kg Trockengew (MWS)
	4 mg/kg Trockengew (SWS)

· 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.
 Avoid contact with the eyes and skin.

· 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.

· Protection of hands:

Preventive skin protection by use of skin-protecting agents is recommended.
 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>)

(Contd. on page 6)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2019

Version number 6

Revision: 05.04.2019

Trade name: Anti-Slide R9

(Contd. of page 5)

Skin protection agent recommendation for skin aftercare:

**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

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>).

· Material of gloves

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

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 trough 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:

Nitrile rubber, NBR
Camatril (KCL, Art_No. 730, 731, 732, 733)
Fluorocarbon rubber (Viton)
Vitoject (KCL, Art_No. 890)
Butyl rubber, BR
Butoject (KCL, Art_No. 897, 898)

· 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:

Natural rubber, NR
Leather gloves
Strong material gloves

· Eye protection:

**Tightly sealed goggles**

(Contd. on page 7)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2019

Version number 6

Revision: 05.04.2019

Trade name: Anti-Slide R9

· Body protection: Protective work clothing

(Contd. of page 6)

SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· General Information

· Appearance:

<u>Form:</u>	Fluid
<u>Colour:</u>	Colourless
· <u>Odour:</u>	Characteristic

· pH-value at 20 °C: 2

· Change in condition

<u>Melting point/freezing point:</u>	Undetermined.
<u>Initial boiling point and boiling range:</u>	100 °C

· Flash point: Not applicable.

· Ignition temperature: 225 °C

· Auto-ignition temperature: Product is not selfigniting.

· Explosive properties: Product does not present an explosion hazard.

· Vapour pressure at 20 °C: 23 hPa

· Density at 20 °C: 1.04 g/cm³

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· Viscosity:

<u>Dynamic:</u>	Not determined.
<u>Kinematic at 20 °C:</u>	11 s (DIN 53211/4)

· Solvent content:

<u>Organic solvents:</u>	5.0 %
<u>Water:</u>	83.4 %

· **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.

(Contd. on page 8)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2019

Version number 6

Revision: 05.04.2019

Trade name: Anti-Slide R9

(Contd. of page 7)

· LD/LC50 values relevant for classification:

ATE (Acute Toxicity Estimates)

Oral	LD50	1,804 mg/kg
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1341-49-7 ammonium bifluoride

Oral	LD50	130 mg/kg (rat)
Inhalative	LC50/1h	342 mg/l (mouse) 1,276 mg/l (rat)

112-34-5 2-(2-butoxyethoxy)ethanol

Oral	LD50	5,660 mg/kg (rat)
Dermal	LD50	4,120 mg/kg (rbt)

Aliphatic alcohols, C13-C15, largely linear, ethoxylated

Oral	LD50	>2,000 mg/kg (Rat)
	LC50/48h	1 mg/l (Oncorhynchus mykiss)

7664-38-2 phosphoric acid

Oral	LD50	1,250 mg/kg (rat)
	NOAEL	≥410 mg/kg (rat)
Dermal	LD50	2,740 mg/kg (rabbit)
Inhalative	LC50	850 mg/l (rat)
	LC50/1h	1.69 mg/l (rat)

- Primary irritant effect:
- Skin corrosion/irritation Causes severe skin burns and eye damage.
- Serious eye damage/irritation Causes serious eye damage.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- 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:

1341-49-7 ammonium bifluoride

EC50	2,394 mg/l (BES)
LC100/96h	562 mg/l (Brachydanio rerio)
LC0/96h	237 mg/l (Brachydanio rerio)
EC10	1,317 mg/l (BES)

112-34-5 2-(2-butoxyethoxy)ethanol

EC50/24h	2,850 mg/l (daphnia magna) (DIN 38412)
EC50/96h	>100 mg/l (Desmodesmus subspicatus) >100 mg/l (Scenedesmus subspicatus)
EC10/16h	1,170 mg/l (pseudomonas putida)
EC5	73 mg/l (Entosiphon sulcatum)
EC50/48h	>100 mg/l (daphnia magna)
NOEC	>100 mg/kg (Desmodesmus subspicatus)

(Contd. on page 9)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2019

Version number 6

Revision: 05.04.2019

Trade name: Anti-Slide R9

(Contd. of page 8)

EC10	>1,995 mg/l (Klärschlamm: Atmungs-/Vermehrungshemmung)
EC50/72h	>100 mg/l (Desmodesmus subspicatus)
LC50/96h	1,300 mg/l (Iepomis macrochirus) >100 mg/l (Leuciscus idus) 1,150 mg/l (poecilia reticulata)

Aliphatic alcohols, C13-C15, largely linear, ethoxylated

EC10	>1,000 mg/l (BES)
EC50/48h	1-10 mg/l (daphnia magna)
EC50/72h	1-10 mg/l (Scenedesmus subspicatus)

7664-38-2 phosphoric acid

EC50	270 mg/l (BES) 270 mg/l (bacteria)
EC50/48h	>100 mg/l (daphnia magna)
NOELR/72h	100 mg/l (Desmodesmus subspicatus)
EC50/72h	>100 mg/l (Desmodesmus subspicatus)
LC50/96h	138 mg/l (Gambusia affinis) 98-106 mg/l (Iem) 3-3.25 mg/l (Iepomis macrochirus)

- **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:**

Must not reach sewage water or drainage ditch undiluted or unneutralised.
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
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.

- **European waste catalogue**

16 00 00	WASTES NOT OTHERWISE SPECIFIED IN THE LIST
16 10 00	aqueous liquid wastes destined for off-site treatment
16 10 01*	aqueous liquid wastes containing hazardous substances

- **Uncleaned packaging:**

- **Recommendation:**

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

(Contd. on page 10)

GB

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 05.04.2019

Version number 6

Revision: 05.04.2019

Trade name: Anti-Slide R9

(Contd. of page 9)

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

· ADR, IMDG, IATA UN3265

· 14.2 UN proper shipping name

· ADR 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (AMMONIUM HYDROGENDIFLUORIDE)

· IMDG, IATA CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (AMMONIUM HYDROGENDIFLUORIDE)

· 14.3 Transport hazard class(es)

· ADR



· Class 8 (C3) Corrosive substances.

· Label 8

· IMDG, IATA



· Class 8 Corrosive substances.

· Label 8

· 14.4 Packing group

· ADR, IMDG, IATA II

· 14.5 Environmental hazards:

· Marine pollutant: No

· 14.6 Special precautions for user

Warning: Corrosive substances.

· Danger code (Kemler): 80

· EMS Number: F-A,S-B

· Segregation groups Acids

· Stowage Category B

· Stowage Code SW2 Clear of living quarters.

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

Not applicable.

· Transport/Additional information:

· ADR

· Limited quantities (LQ) 1L

· Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

· Transport category 2

· Tunnel restriction code E

· IMDG

· Limited quantities (LQ) 1L

· Excepted quantities (EQ) Code: E2
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 500 ml

(Contd. on page 11)

