

Safety Data Sheet

düring ag

According to Regulation (EC) No. 1907/2006 (REACH)

Revision Date: 27.10.14

Print Date: 27.10.14

durgol® surface

Revision: ds_2014_V.1 en

1. Identification of the Substance/Mixture and the Company/Undertaking

1.1	Product name:	durgol® surface
1.2	Relevant identified uses of the substance or mixture:	Bathroom Cleaner & Decalcifier
1.3	Manufacturer:	düring ag Brunnenwiesenstrasse 14 CH-8108 Dällikon
1.4	Telephone/Technical Information:	+41 44 847 27 47 Mon-Thu: 8:00-12:00 and 13:30-16:30 (Fri.-16:00)
	Homepage:	www.dueringag.ch
	Fax:	+41 44 844 38 90
	E-mail address:	info@dueringag.ch
1.5	Distributor/Importer:	Frieling USA, Inc. 398 York Southern Rd Fort Mill, SC 29715-7715 - USA
	Telephone:	+1 704 329 51 00
1.6	Emergency telephone number:	
	Swiss Toxicological Information Centre, Zurich	145 or +41 44 251 51 51
	Poison emergency center of the Charité - University of medicine, Berlin	+49 30 306 867 90

2. Identification of potential hazards

2.1	Classification of the substance or mixture according to Directive 67/548/EEC and 1999/45/EC:	The product is not a hazardous preparation.
2.2	Label elements in accordance with Annex II to Directive 67/548/EEC and 1999/45/EC:	
	Symbol of danger:	The labeling with a symbol of danger is not necessary.
	Designation of danger:	An indication of danger is not necessary.
	Hazard-determining components of labelling:	
	Contains:	Sulfamic acid (voluntary indication)
2.3	Hazard warnings according to Directive 67/548/EEC Annex III (R-phrases):	According to official regulations hazard warnings are not required.
2.4	Safety precautions according to Directive 67/548/EEC Annex IV (S-phrases):	According to official regulations safety precautions are not necessary. The following information are voluntary.
	S2	Keep out of the reach of children.
	S24/25	Avoid contact with skin and eyes.
	S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
	S28.1	After contact with skin, wash immediately with plenty of water.

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2. Continuation

2.5 Classification of the substance or mixture according to Regulation (EC) No 1272/2008, Annex VII:
A classification of the mixture is due to the concentration of each ingredient not required.

2.6 Label elements in accordance with Regulation (EC) No 1272/2008, Annex VII:
Due to the classification of the mixture label elements are not required.

Hazard-determining components of labelling:

Contains: **Sulfamic acid (voluntary indication)**

2.7 Hazard warnings according to GHS/Regulation (EC) No 1272/2008 (H-phrases):
Health Hazards: **None**

2.8 Safety precautions according to GHS/Regulation (EC) No 1272/2008 (P-phrases):
According to official regulations safety precautions are not necessary.
The following information are voluntary.

General:

P102 Keep out of reach of children.

Reaction:

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







P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.

3. Composition/Information on ingredients

3.1 Chemical characterization:

The product is an aqueous mixture containing ingredients that are safe in the concentrations present.

3.2 Hazardous Ingredients:

CAS-No.	EC-No.	Index-No.	Name of substance	Content
5329-14-6	226-218-8	016-026-00-0	Sulfamic acid  Xi R36/38, R52/53  Eye Irrit. 2, H319  Skin Irrit. 2, H315 Aquatic Chronic 3, H412	< 10%
26183-52-8	Polymer	-	Deceth-10  Xn R22, Xi R41  Eye Dam. 1, H318  Acute Tox. 4, H302	< 3.0%

Additional Information:

The wording of the risk phrases is listed in Section 16.3

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4. First-Aid measures

4.1 General information:

Remove contaminated clothing immediately. If you feel unwell, consult a doctor/medical service. Show this datasheet or the label.

4.2 After inhalation:

If aerosol, vapour or mist was inhaled, breathe fresh air. In case of irritation of the respiratory system seek medical attention.

4.3 After skin contact:

Wash affected skin with soap and plenty of water.

4.4 After eye contact:

Remove any contact lenses. Rinse opened eye for several minutes with plenty of water. If necessary, consult an ophthalmologist.

4.5 After swallowing:

Rinse mouth thoroughly with water and drink plenty of water in small sips. Do not induce vomiting. In case of indisposition, seek medical advice.

5. Firefighting measures

5.1 Extinguishing media:

Suitable extinguishing media:

Water spray, foam, carbon dioxide and powder.

Unsuitable extinguishing media:

Water spray jet.

5.2 Specific hazards posed by the substance or mixture:

The product is not flammable. In the event of a fire and a temperature of above 200 ° C the formation of sulfur oxides, nitrogen oxides and carbon oxides can occur.

5.3 Advice for fire fighting:

Staying in hazard area only with protective clothing and a self-contained breathing apparatus. Cool endangered packagings and containers with sprayed water and, if possible, remove them out of the danger zone. Prevent the penetration of extinguishing water into surface water or groundwater.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

Do not breathe vapour or mist. Ensure adequate ventilation. Avoid skin and eye contact.

6.2 Environmental protection measures:

Prevent the penetration of the product and large quantities of contaminated wash water in water and soil. Confine with sand or similar material. Collect product mechanically and fill it in marked vessels. Cover drains to prevent the entering of product into the canalisation, if necessary.

6.3 Methods and materials for containment and cleaning:

Pump off large quantities of product. Take up residues with absorbent materials (sand, sawdust etc.), collect it in suitable containers and dispose it in accordance to official regulations. Dilute small spilled quantities (up to approx. 1 Liter) with much water and dispose it in the drains.

6.4 Reference to other sections:

Observe protective measures in sections 7., 8. and 13.

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7. Handling and Storage

7.1 Precautions for Safe Handling:

Do not leave containers open. Avoid contact with eyes and skin. Use only in well ventilated areas.

Measures to protect against fire and explosions:

The product is not flammable and not explosive.

General hygiene measures:

In areas where people work with the product, do not eat, drink or smoke. Wash hands after use.

7.2 Conditions for safe storage, including incompatibilities:

Information about storage conditions:

Store product in original container tightly closed in a cool, well ventilated place. Do not store together with medicines, foods, beverages or feedstuffs.

Storage class: 12 (VCI) Non-combustible liquids.

Recommended storage conditions: 5 - 40°C

durability: At least 3 years

7.3 Specific end uses:

Bathroom Cleaner & Decalcifier with beading effect against limescale deposits on faucets and surfaces.

8. Exposure control/Personal protection

8.1 Control parameters:

The product (mixture/preparation) does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

8.2 Exposure controls:

8.2.1 Appropriate engineering controls:

Technical measures are not required for the application of the product.

8.2.2 Individual protection measures/Personal protective equipment:

Eye/Face protection:



A special eye / face protection is not required. A direct eye contact with the product should be avoided.

Skin protection:

Gloves:



A special skin protection is not required. A direct skin contact with the product should be avoided.

Body protection:



A special protective equipment is not required.

Respiratory protection:



When used as directed, a respiratory protection is not necessary.

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9. Physical and chemical Properties

9.1 Information on basic physical and chemical properties:

Physical state:	Liquid		
Colour:	Blue		
Odour:	Weak, characteristic		
pH value [20°C] undiluted:	< 1.5		DIN 19268
Melting point/Freezing point [1013 hPa]:	ca. 0	°C	according to Tottoli
Initial boiling point/Boiling range [1013 hPa]:	ca. 100	°C	DIN 38404 C4
Flash point:	Not applicable		
Flammability:	The product is not flammable or explosive.		
Lower flammability or explosive limits:	Not applicable		
Upper flammability or explosive limits:	Not applicable		
Vapour pressure [20°C]:	ca. 23	hPa	calculated
Relative density [20°C]:	1.1	g/cm ³	DIN 51 757 D
Water solubility:	The product is completely soluble and miscible.		
Dynamic viscosity [25°C]:	1.6	cP (mPa s)	DIN 53 221
Kinematic viscosity [25°C]:	1.5	cSt	calculated
VOC content:	Not applicable		

9.2 Additional information:

No data available.

10. Stability and reactivity

10.1 Reactivity:

Reacts with strong oxidants and bases under intense generation of heat. Reacts rapidly with carbonates to form carbon dioxide.

10.2 Chemical stability:

Under standard ambient conditions (room temperature), the product is chemically stable.

10.3 Possibility of hazardous reactions:

When used as directed no hazardous reactions are expected.

10.4 Conditions to avoid:

The product should not be used in combination with other cleaning/descaling agents.

10.5 Incompatible materials:

Acid-labile resins (POM), inferior stainless steel, thin/damaged chrome plating, silver and marble are attacked.

10.6 Hazardous decomposition products:

Under normal conditions, hazardous decomposition products are not expected.

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11. Toxicological Information

11.1 Information on toxicological effects:

11.1.1 **Substance name:** Sulfamic acid

CAS-No.: 5329-14-6 EC-No.: 226-218-8 Index-No.: 016-026-00-0

Acute toxicity:

Toxicity values:

LD50 (oral, rat), 3160 mg/kg (IUCLID)

LD50 (oral, mouse), 1312 mg/kg (IUCLID)

LD50 (oral, guinea pig), 1050 mg/kg (IUCLID)

Irritating effects:

Skin (rabbit), moderate skin irritation (IUCLID)

Skin (rabbit), 24h, severe skin irritation (IUCLID)

Skin (human), mild skin irritation (IUCLID)

Eyes (rabbit), moderate eye irritation (IUCLID)

Eyes (rabbit), moderate eye irritation (IUCLID)

Corrosive effects:

No data available

Sensitizing effects:

No data available

Germ cell mutagenicity:

No data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity:

No data available

Specific target organ toxicity - single exposure:

No data available

Specific target organ toxicity - repeated exposure:

No data available

Aspiration hazard:

No data available

Potential health effects:

Inhalation:

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion:

May be harmful if swallowed.

Skin:

May be harmful if absorbed through skin. Causes skin irritation.

Eyes:

Causes eye burns.

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11. Continuation

Signs and Symptoms of Exposure:

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Symptoms and signs of poisoning are: burning sensation, cough, wheezing, laryngitis, shortness of breath, headache, Nausea, vomiting. Inhalation may provoke the following symptoms: spasm, inflammation and edema of the bronchi, spasm, inflammation and edema of the larynx. Aspiration or inhalation may cause chemical pneumonitis.

Additional Information:

RTECS: no data available

11.1.2 **Substance name:** Deceth-10
CAS-No.: 26183-52-8 EC-No.: Polymer Index-No.: -

Acute toxicity:

Toxicity values:

LD50 (oral, rat), > 2000 mg/kg (Manufacturer)

Irritating effects:

On the skin: No irritation (Manufacturer)

On the eye: Strong irritant with the danger of severe eye injury (Manufacturer)

Corrosive effects:

No data available

Sensitizing effects:

No sensitizing effects known (Manufacturer)

Germ cell mutagenicity:

No data available

Carcinogenicity:

No data available

Reproductive toxicity:

No data available

Specific target organ toxicity - single exposure:

No data available

Specific target organ toxicity - repeated exposure:

No data available

Aspiration hazard:

No data available

Potential health effects:

Inhalation:

May be harmful if inhaled. Causes respiratory tract irritation.

Ingestion:

May be harmful if swallowed.

Skin:

May be harmful if absorbed through skin. Causes skin irritation.

Eyes:

Causes severe eye irritation.

Signs and Symptoms of Exposure:

No data available

Additional Information:

RTECS: no data available

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12. Ecological Information

12.1 Aquatic toxicity:

12.1.1 **Substance name:** Sulfamic acid
CAS-No.: 5329-14-6 EC-No.: 226-218-8 Index-No.: 016-026-00-0

Toxicity values:

Acute Toxicity to Fish:

Pimephales promelas (Fathead minnow); LC50 (96h); 70.3 mg/l (IUCLID)

Poecilia reticulata (Guppy); LC50 (24h); > 2000 mg/l (IUCLID)

Acute Toxicity to Aquatic Invertebrates:

No data available

Toxicity to Aquatic Plants e.g. Algae:

No data available

Toxicity to Microorganisms e.g. Bacteria:

Pseudomonas putida; EC10 (16h); > 1000 mg/l (IUCLID)

Sewage treatment plant, Activated sludge (anaerobic); EC50 (24h); > 10000 mg/l (IUCLID)

Chronic Toxicity to Fish:

No data available

Chronic Toxicity to Aquatic Invertebrates:

No data available

12.1.2 **Substance name:** Deceth-10
CAS-No.: 26183-52-8 EC-No.: Polymer Index-No.: -

Toxicity values:

Acute Toxicity to Fish:

No data available

Acute Toxicity to Aquatic Invertebrates:

No data available

Toxicity to Aquatic Plants e.g. Algae:

No data available

Toxicity to Microorganisms e.g. Bacteria:

No data available

Chronic Toxicity to Fish:

No data available

Chronic Toxicity to Aquatic Invertebrates:

No data available

12.2 Persistence and degradability:

The surfactants contained in this product comply with the biodegradability criteria as laid down in Regulation (EC) No. 648/2004 on detergents.

DOC-Elimination: 90.0 % OECD 302 B (28d)

Mineralization: 73.0 % th.CO₂ OECD 302 B (28d)

The product can according to the terms of the guideline OECD 302 B be described as "ultimately biodegradable".

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12.3 Bioaccumulative potential:

No data available

12.4 Mobility in soil:

No data available

12.5 Results of PBT and vPvB assessment:

No data available

12.6 Other adverse effects:

No data available

13. Disposal considerations

13.1 Waste treatment methods:

According to the Waste Catalogue Ordinance 2001/118/EC (AVV) the product/product leftovers are not classified as a hazardous waste. If recycling is not possible, waste must be removed in compliance with local regulations.

Product:

Waste code according to Waste Catalogue 2001/118/EC Regulation (AVV):

20 01 30

Detergents

Recommendation:

The correct waste code number has to be determined in accordance with the local waste disposer.

Packaging:

Packing material:

PET (bottles); PP (spray heads); HDPE (canisters)

Contaminated packaging:

Empty, not dried out container must be disposed of as containers of harmful residues.

Waste code according to Waste Catalogue 2001/118/EC Regulation (AVV):

15 01 02

Plastic packaging

Cleaned packaging:

Uncontaminated and cleaned packaging can be recycled.

Recommended cleaning agent:

Water

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14. Transport Information

General information:

The product (Mixture/Preparation) is not dangerous goods under transport regulations.

14.1	UN-Number (ADR / RID, IMDG, IATA):	Not applicable
14.2	UN proper shipping name:	
	ADR/RID:	Not applicable
	IMDG:	Not applicable
	IATA:	Not applicable
	UN Model Regulations:	Not applicable
14.3	Transportation hazard class and transport labeling:	
	Class (ADR / RID, IMDG, IATA):	Not applicable
		Not applicable
	Classification Code (ADR):	Not applicable
14.4	Packing Group (ADR / RID, IMDG, IATA):	Not applicable
14.5	Transport category (ADR):	Not applicable
	Maximum total quantity per transport unit (ADR):	Not applicable
	Limited and exempted amount (ADR):	Not applicable
14.6	Environmental hazards:	
	ADR/RID:	No
	IMDG Marine pollutant:	No
14.7	Special precautions for user:	
	Ems-No.:	Not applicable
	Hazchem Code:	Not applicable
	Hazard no. (Kemler):	Not applicable
	Tunnel restriction code:	Not applicable
14.8	Additional information:	
	Additional precautions for user: See also Section 6. and 8.	

15. Regulatory Information

15.1	Safety, health and environmental regulations / Legislation specific for the substance or mixture: The product is not hazardous or classified as dangerous under Directives 1999/45/EC and Regulations (classification, packaging and labeling of dangerous preparations), 67/548/EEC (packaging and labeling regulation) and (EC) 648 / 2004 (Detergent). The designated rules will be replaced on 1 June 2015 by the CLP Regulation (EC) 1272/2008 as part of the GHS.
15.2	EU legislation:
	Regulation (EC) No 2037/2000 (Substances that deplete the ozone layer): Not applicable
	Regulation (EC) No 850/2004 (Persistent Organic Pollutants): Not applicable
	Regulation (EC) No 689/2008 (Export and import of dangerous chemicals): Not applicable
	Regulation (EC) No 648/2004 (Detergent): The product (Mixture/Preparation) meets the criteria laid down in Regulation (EC) No 648/2004.
	Restrictions set forth in Title III of Regulation (EC) No 1907/2006 (REACH): Not applicable

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15. Continuation

15.3 National regulations:

Water hazard class according VwVwS, Annex 4:

1 (weakly water polluting)

Solvents Regulation (31. BImSchV):

VOC content: **Not applicable**

Hazardous Incident Ordinance (12. BImSchV):

Not applicable

Technical Instructions on Air Quality (TA-Luft; Germany):

Not applicable

Reference to technical rules for hazardous substances (TRGS):

None

15.4 Chemical safety assessment:

The product (Mixture/Preparation) was not subjected to safety assessment.

16. Other Information

16.1 Changes since the last version:

Correction in Section 9.

Author of the safety data sheet:

Dr. H. Hopfstock, Duering AG, Division R&D/QA, herbert.hopfstock@dueringag.ch

16.2 Literature and data sources:

Regulations:

Preparation Directive 1999/45/EC, as last amended by Regulation (EC) No 1907/2006.

Substances Directive 67/548/EEC, as last amended by Directive 2009/2/EC.

REACH Regulation (EC) No 1907/2006, as last amended by Regulation (EC) No 253/2011.

CLP Regulation (EC) No 1272/2008, as amended by Regulation (EC) No 790/2009.

AGW Directives 2000/39/EC of 8 June 2000; 2006/15/EC of 7 February 2006 and 2009/161/EC of 17 December 2009.

Internet:

<http://esis.jrc.ec.europa.eu>

<http://www.bag.admin.ch/>

16.3 Hazard warnings which are referred in section 2. and 3.:

According to directive 67/548/EEC and Dangerous Preparations Directive 1999/45/EC:

R22 Harmful if swallowed.

R36/38 Irritating to eyes and skin.

R41 Risk of serious damage to eyes.

R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

According to the CLP Regulation (EC) No 1272/2008:

Eye Irrit. 2, H319; Serious eye damage/Eye irritation, Category 2; Causes severe eye irritation.

Irrit skin. 2, H315; Skin corrosion, Category 2; Causes skin irritation.

Aquatic Chronic 3, H412; CHRONIC AQUATIC TOXICITY - Category 3; Harmful to aquatic life with long lasting effects.

Eye Dam. 1, H318, Serious eye damage/eye irritation - Category 1; Danger of serious damage to eyes.

Acute Tox. 4, H302, Acute Toxicity - Category 4; Harmful if swallowed.

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16.4 Methods according to Article 9 of the Regulation (EC) No 1272/2008 of the evaluation of data for classification purposes:

Classification in accordance with Regulation (EC) No 1272/2008, Annex VII (Conversion table).

16.5 Other product-related information:

Kosher product; Rabbinat kashrus list of the Israelite Society Zurich (IRGZ)

16.6 Abbreviations used:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BImSchV	Ordinance for the implementation of the Federal Pollution Control Act
CAS	Chemical Abstracts Service
CLP	Classification, Labelling and Packaging (Regulation)
DIN	Standards of the German Institute for Standardization
DOC	Dissolved Organic Carbon
EC	Effective concentration
EG	European Community (EC)
EWG	European Economic Community (EEC)
GHS	Globally Harmonized System of Classification and Labelling of Chemicals
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association - Dangerous Goods Regulations
IMDG	International Maritime Dangerous Goods - International Regulations for the carriage of dangerous goods by sea
IUCLID	International Uniform Chemical Information Database
LC	Lethal concentration
LD	Lethal dose
NIOSH	US National Institute of Occupational Safety & Health
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent, bioaccumulative, toxic
PE-HD	High density polyethylene, thermoplastic
PET	Polyethylene terephthalate, thermoplastic
POM	Polyoxymethylene (polyacetal) thermoplastic
REACH	Registration, Evaluation and Authorisation of Chemicals (Regulation)
RID	Rules for international carriage of dangerous goods by rail
RTECS	Registry of Toxic Effects of Chemical Substances
TRGS	Technical Rules for Hazardous Substances
UN	United Nations
VCI	Association of Chemical Industry (Germany)
VOC	Volatile Organic Compounds
vPvB	Very persistent and very bioaccumulative
VwVwS	Administrative Regulation on substances hazardous to water (Germany)

This safety data sheet corresponds to Article 31 and Annex II of the REACH Regulation (EC) No 1907/2006 (as amended by Regulation (EU) No 453/2010). The above information is based on our present knowledge and describes the safety requirements of the substances or the product (Mixture/Preparation), however they are no assurance of product properties and do not justify a contractual legal relationship.