



Material Safety Data Sheet

According to US Regulation ANSI Z400.1-2004

Created: February 16th 2010

Section 1: Product and Company Identification

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| * Product Name: | durgol[®] surface |
| * Product Description: | Foaming Bathroom Decalcifier |
| * Manufacturer: | Düring AG Brunnenwiesenstrasse 14 CH-8108 Dällikon - Switzerland |
| * Phone: | +41 44 847 27 47 |
| * Distributor / Importer: | Frieling USA, Inc. The Frieling Building 1920 Center Park Drive Charlotte, NC 28217 - USA |
| * Email: | durgol@frieling.com |
| * Phone: | +1 704 329 5100 |
| * Emergency Telephone Number: | +1 800 827 2582 |

Section 2. Hazards Identification

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| * Emergency Overview: | Eye and mild skin irritant. Avoid contact with eyes and skin. Contains Sulfamic acid and Polyoxyethylene(10)decyl ether. Keep out of reach of children. |
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Section 3. Composition and Information on Ingredients

* Composition:

| Chemical Name | CAS # | Content [% by weight] | ACGIH – Occupational Exposure Limits – TWA's | Symbol and R-Phrases ¹⁾ |
|----------------------------------|------------|--------------------------|---|---------------------------------------|
| Polyoxyethylene (10) decyl ether | 26183-52-8 | < 3.0 % | Not evaluated | Xi; R41 |
| Sulfamic acid | 5329-14-6 | < 7.5 % | Not evaluated | C; R36/38, R52/53 |

¹⁾ The text of each R-Phrase is written in Section 16.

Section 4. First Aid Measures

- * Inhalation: (Vapor/Aerosol) Move to fresh air.
- * Skin Contact: Wash off with soap and plenty of water.
- * Eye Contact: If in eyes, immediately flush eyes thoroughly with water, remove any contact lenses and rinse with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
- * Ingestion: Rinse mouth. Never give anything by mouth to an unconscious person. Consult a physician if necessary.
- * Notes to Physicians: Treat symptomatically.
- * Aggravated Medical Conditions: No information available.

Section 5. Fire Fighting Measures

The Product is not flammable. If this product is involved in a fire, the decomposition products generated will include irritating vapors and gases and some carbon monoxide.

- * Flash Point: Not flammable
- * Autoignition Temperature: Not established
- * Flammable Limits (in air by volume,%)
 - * Lower (LEL): Not applicable
 - * Upper (UEL): Not applicable
- * Suitable Extinguishing Materials: Use extinguishing media appropriate for surrounding fire. Water Spray; Carbon Dioxide; Foam; Dry Chemicals and Halon is O.K.
- * Extinguishing Materials which must not be used for safety reasons: No information available
- * Specific Hazards: Not applicable
- * Unusual Hazards: None known
- * Special Protective Equipment for Fire Fighters: As in any fire, wear self-contained breathing apparatus, pressure-demand, MSHA / NIOSH (approved or equivalent) and full protective gear.
- * Precautions for Fire Fighters: Standard procedure for chemical fires.
- * Flammability (NFPA 704): 0 = Materials that will not burn.

Section 6. Accidental Release Measures

- * Personal Precautions: Use personal protective equipment. Avoid contact with skin and eyes.
- * Environmental Precautions: Do not allow material to contaminate ground water system.

- * **Methods for Cleaning Up:** Clean contaminated surface thoroughly. Take up mechanically and collect in suitable container for disposal. Large spills of concentrated material should be contained, collected and evaluated for disposal according to state, provincial and federal hazardous waste regulations.

Section 7. Handling and Storage

- * **Handling:**
 - * **Safe Handling Advice:** CAUTION: Harmful if swallowed.
CAUTION: Eye and skin irritant.
Avoid contact with skin and eyes.
Do not breathe vapours.
Contains Sulfamic acid.
Do not mix with any other products.
- * **Storage:**
 - * **Storage:** Store in original container in areas inaccessible to small children and pets.
 - * **Conditions for Safe Storage:** Keep in a dry, cool place. Avoid temperatures above 50°C / 120°F for a long period of time.

Section 8. Exposure Controls / Personal Protection

- * **Exposure Controls:**

| Chemical Name | CAS # | ACGIH – Occupational Exposure Limits – TWA’s |
|----------------------------------|------------|---|
| Polyoxyethylene (10) decyl ether | 26183-52-8 | Not evaluated |
| Sulfamic acid | 5329-14-6 | 15 mg/m ³ TWA (total dust) OSHA 5 mg/m ³ TWA (Respirable fraction) OSHA 4 mg/m ³ TWA (Inhalable fraction) DFG MAK 1.5 mg/m ³ TWA (Respirable fraction) DFG MAK |

- * **Engineering Controls:** None required under normal use conditions.
- * **Personal Protection:**
 - * **Respiratory Protection:** Do not breathe vapours.
 - * **Hand Protection:** Wear impermeable gloves when handling.
 - * **Eye Protection:** Avoid contact with eyes. Wear safety glasses with side-shields. Emergency responders should wear full eye and face protection.
 - * **Skin and Body Protection:** Usual safety precautions while handling the product will provide adequate protection against injury or irritation. Follow product label instructions.
 - * **Hygiene Measures:** Avoid contact with eyes, skin and clothing.

Section 9. Physical and Chemical Properties

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| * Physical State: | Liquid |
| * Appearance: | Liquid, clear |
| * Colour: | Blue |
| * Odour: | Characteristic |
| * pH-Value: | approx. 1.0 |
| * Melting Point / Area: | approx. 0°C / 32°F |
| * Boiling Point / Area: | approx. 100°C / 212°F |
| * Vapour Pressure: | Not determined |
| * Flash Point: | Not flammable |
| * Autoignition Temperature: | Not established |
| * Flammable Limits (in air by volume,%) | |
| * Lower (LEL): | Not applicable |
| * Upper (UEL): | Not applicable |
| * Specific Gravity / Density: | approx. 1.0 g/cm ³ (20°C / 68°F) |
| * Solubility in Water: | Completely miscible |
| * Viscosity (dynamic): | approx. 3 cP [mPa s] |

Section 10. Stability and Reactivity

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| * Stability: | Stable under recommended storage conditions. |
| * Hazardous Decomposition Products: | Oxides of carbon and unknown organic compounds. |
| * Materials to Avoid: | Do not mix with other household chemicals. |
| * Conditions to Avoid: | Extremes of temperature and direct sunlight, dirt, chemical contamination, ultraviolet (UV) or ionizing radiation. |

Section 11. Toxicological Information

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| * Product Toxicity Data: | No information available. |
| * Acute Effects: | |
| * Eye Irritation: | Irritating to eyes. |
| * Skin Irritation: | Irritating to skin. |
| * Inhalation: | None expected during normal conditions of use. |
| * Ingestion: | Ingestion could cause irritation of the mouth and throat. |
| * Sensitization: | Not expected to be a skin sensitiser. |
| * Chronic Effects: | No information available. |

- * Specific Effects:
 - * Carcinogenic Effects: Not listed as carcinogenic by OSHA, NTP or IARC.
 - * Mutagenic Effects: No information available.
 - * Reproductive Toxicity: No information available.
- * Additional Toxicity Information: Information given is based on available data on the components and the toxicity of similar products.
- * Component Toxicity Data:

| Chemical Name / CAS # | Application | Method | Specie | Acute Toxicity |
|--|-------------|--------|------------|----------------|
| Polyoxyethylene (10) decyl ether CAS 26183-52-8 | Oral | LD 50 | Rat | > 2000 mg/kg |
| Sulfamic acid CAS 5329-14-6 | Oral | LD 50 | Rat | 3160 mg/kg |
| | Oral | LD 50 | Mouse | 1312 mg/kg |
| | Oral | LD 50 | Guinea Pig | 1050 mg/kg |

Section 12. Ecological Information

- * Product Toxicity Data: No information available.
- * Component Toxicity Data:

| Chemical Name / CAS # | Method | Specie | Aquatic Toxicity |
|--|--------|---------------------|-----------------------|
| Polyoxyethylene (10) decyl ether CAS 26183-52-8 | - | - | No data available |
| Sulfamic acid CAS 5329-14-6 | LC 50 | Pimephales promelas | 70.3 mg/l über 96 h |
| | EC 10 | Pseudomonas putida | > 1000 mg/l über 16 h |

- * Other Information:
 - * Ozone Depletion Potential (ODP): No information available.
 - * Global Warming Potential (GWP): No information available.
- * Additional Toxicity Information: Information given is based on available data on the components and the ecotoxicology of similar products.

Section 13. Disposal Considerations

- * Waste from residues / unused: Dispose of in accordance with local regulations.
- * Contaminated Packaging: Dispose of as unused product.
- * Additional Information:
 - * European Waste-Code #: 060199
 - * European Water Hazard Classification: 1 (slightly hazardous to water)

Section 14. Transport Information

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| * U.S. Department of Transportation Hazard Class: | Not regulated |
| * General Remarks: | For long distance transport of bulk material or shrinked paletts take into consideration sections 7 and 10. |
| * DOT: | Not regulated |
| * TDG: | Not regulated |
| * MEX: | Not regulated |
| * ICAO: | Not regulated |
| * IATA: | Not regulated |
| * IMDG/IMO: | Not regulated |
| * RID/ADR: | Not regulated |
| * ADN: | Not regulated |
| * DOT: | Not regulated |
| * DOT: | Not regulated |
| * DOT: | Not regulated |
| * DOT: | Not regulated |
| * DOT: | Not regulated |
| * DOT: | Not regulated |

Section 15. Regulatory Information

| Chemical Name | CAS # | PICCS | TSCA | DSL | ENCS/MITI | EINECS ELINCS | AICS |
|-------------------------------------|------------|---------|---------|-----|------------|------------------|------|
| Polyoxyethylene (10) decyl ether | 26183-52-8 | Present | Present | X | Not listed | 245-512-7 | X |
| Sulfamic acid | 5329-14-6 | Present | Present | X | 1-402 | 226-218-8 | X |

* U.S. Regulations:

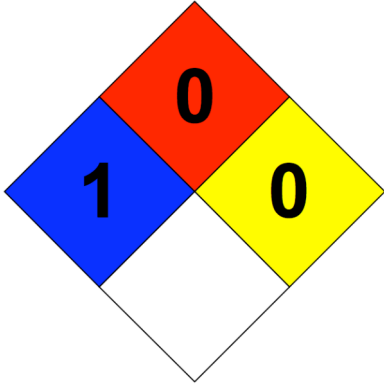
| Chemical Name | CAS # | NJRTK | Appearance | SARAH313 | California Prop. 65 |
|-------------------------------------|------------|------------|-----------------------------------|----------|------------------------|
| Polyoxyethylene (10) decyl ether | 26183-52-8 | Not listed | Clear, slightly yellow, liquid | None | Not listed |
| Sulfamic acid | 5329-14-6 | Not listed | White crystals, solid | None | Not listed |

* WHMIS (Canada):

* WHMIS Hazard Class: Not determined

Section 16. Other Information

* NFPA:



* HMIS:

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|---|----------|
| Health Hazard Slightly Hazardous | 1 |
| Fire Hazard Will not burn | 0 |
| Reactivity Stable | 0 |
| Personal Protection No Specific Information | 0 |

* Text of R-Phrases (See Section 2.):

- * R41 Risk of serious damage to eyes.
- * R36/38 Irritating to eyes and skin.
- * R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

* Created by:

Düring AG

* Creator:

Dr. H. Hopfstock

* Date:

February 16th 2010

* Version:

ds01/10/US

* Reasons for revisions:

Not applicable

* Additional Advice:

Consult your supplier if the material is to be used for special applications such as in the food industry or for hygiene, medical or surgical end-use.

* Additional Information:

* TSCA:

The U.S. Toxic Substances Control Act is close equivalent to the European Regulations 67/548/EWG and (EG) 1907/2006 (REACH)

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.