

# SAFETY DATA SHEET (EC 1907/2006)

## Flussmittel DS 1

**DeguDent**  
A Dentsply International Company

Material no.		Version	1.6 / GB
Specification	102910	Revision date	06.10.2010
VA-Nr		Print Date	07.10.2010
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### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

#### Product information

Trade name	Flussmittel DS 1
Company	DeguDent GmbH Postfach 1364 D-63403 Hanau
Telephone	+49 (0)6181/59-5767
Telefax	+49 (0)6181/59-5879
Email address	SDB@degudent.de
Emergency telephone number	+49 (0)180 / 23 24-555

Use of the Substance / Preparation For dental use only.

REACH Registration No.: if available listed in Chapter. 3

### 2. HAZARDS IDENTIFICATION

#### Classification as per Directive 67/548/EC or Directive 1999/45/EC

Xn, Harmful

R48/20/22: Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.

#### Other Hazards

Irritation and on occasion caustic effects to the skin and mucous membranes (eyes, respiratory channels, in the stomach/intestinal tracts after swallowing) are to be expected from local contact.  
hydrogen fluoride is released during processing.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### Information on ingredients / Hazardous components as per Directive 67/548/EC or Directive 1999/45/EC

• <b>tripotassium-hexafluoroaluminate</b>	9% - 11%
CAS-No. 13775-52-5	EC-No. 237-409-0
• <b>Mixture of Borates</b>	45% - 50%
CAS-No.	
• <b>Silicon dioxide, chemically prepared</b>	7% - 11%
CAS-No. 7631-86-9	EC-No. 231-545-4

See chapter 16 for text of risk phrases

### 4. FIRST AID MEASURES

#### Description of first aid measures

Remove contaminated or saturated clothing.

#### Inhalation

Move victims into fresh air.

Upon formation of vapours / fumes are formed:

Possible discomfort:

irritation of mucous lining (nose, throat, eyes)

cough, sneezing, flow of tears

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Symptoms may occur with delay.  
If breathing difficulties occur:  
Keep patient half sitting with upper body raised.  
Consult a physician immediately.

### **Skin contact**

Wash off with plenty of water.

### **Eye contact**

Keeping eyelid open, immediately rinse thoroughly for at least 5 minutes using plenty of water or, if necessary, eye rinsing solution.  
In case of persistent discomfort:  
Consult an ophthalmologist.

### **Ingestion**

Have the mouth rinsed with water.  
Have patient drink plenty of water in small sips.  
Consult a physician immediately.

### **Indication of any immediate medical attention and special treatment needed**

Following inhalation of vapours / fumes:  
Formation of a toxic lung edema is possible if product continues to be inhaled despite acute irritative effect (e.g. if it is not possible to leave the danger area).  
Prophylaxis of a toxic lung oedema with inhalative steroids (Dexamethasone aerosol dosing spray, f.ex. auxilosone).  
Alleviation of throat irritation with antitussive cough mixture (hydrocodon hydrogen tartrate, e.g. Dicodid).  
If substance has been swallowed:  
After oral intake, release of fluoride ions cannot be precluded.  
Gastric irrigation under gastroscopic observation using calcium gluconate (formation of insoluble calcium fluorides in gastro-intestinal tract).

## **5. FIRE-FIGHTING MEASURES**

### **Suitable extinguishing media**

All extinguishing substances suitable.

### **Unsuitable extinguishing media**

None known

### **Special hazards arising from the substance or mixture**

Risk of decomposition when exposed to heat.  
In case of combustion or decomposition of the product, the fumes produced lead to irritations or inflammations of the respiratory tract.  
In the case of fire, the following hazardous smoke fumes may be produced: hydrogen fluoride.

### **Special protective equipment for fire-fighters**

In the event of fire, wear self-contained breathing apparatus.

### **Advice for firefighters**

Water used to extinguish fire should not enter drainage systems, soil, or stretches of water. Ensure there are sufficient retaining facilities for water used to extinguish fire. Contaminated fire-extinguishing water must be disposed of in accordance with the regulations issued by the appropriate local authorities. Fire residues should be disposed of in accordance with the regulations.

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**6. ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

In case product dust is released:  
Do not breathe dust.  
Avoid formation of dust. Ensure sufficient ventilation.  
Avoid contact with skin, eyes and clothing.

**Environmental precautions**

Prevent penetration into soil, stretches of water and drainage systems.

**Methods and material for containment and cleaning up**

Absorb in water or rinse away with water and collect in suitable containers.

**7. HANDLING AND STORAGE****Handling****Precautions for safe handling**

Ensure suitable suction/aeration at the work place and with operational machinery.  
Do not breathe vapour.  
If necessary: Local ventilation.

**Storage****Conditions for safe storage, including any incompatibilities**

Keep tightly sealed in original packing.

**Storage stability**

Keep at temperatures of between 5 °C and 30 °C.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Control parameters**

<b>• tripotassium-hexafluoroaluminate</b>			
CAS-No.	13775-52-5	EC-No.	237-409-0
Control parameters	2.5 mg/m <sup>3</sup> Indicative		Time Weighted Average (TWA):(EU ELV)
Control parameters	2 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	2.5 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 WEL)
<b>• hydrogen fluoride</b>			
CAS-No.	7664-39-3	EC-No.	231-634-8
Control parameters	1.8 ppm 1.5 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 WEL)
Control parameters	3 ppm 2.5 mg/m <sup>3</sup>		Short Term Exposure Limit (STEL):(EH40 WEL)
Control parameters	1.8 ppm 1.5 mg/m <sup>3</sup> Indicative		Time Weighted Average (TWA):(EU ELV)
Control parameters	3 ppm 2.5 mg/m <sup>3</sup> Indicative		Short Term Exposure Limit (STEL):(EU ELV)
<b>• related to: fluoride</b>			
CAS-No.	16984-48-8		
Control parameters	2.5 mg/m <sup>3</sup>		MAK:(TRGS 900)

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Short-time value	4
type of exposition	as an inhalable fraction

**• Silicon dioxide, chemically prepared**

CAS-No.	7631-86-9	EC-No.	231-545-4
Control parameters	6 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 WEL)
type of exposition	Inhalable dust.		
Control parameters	2.4 mg/m <sup>3</sup>		Time Weighted Average (TWA):(EH40 WEL)
type of exposition	Respirable dust.		

**Engineering measures**

hydrogen fluoride is released during processing.  
Ensure suitable suction/aeration at the work place and with operational machinery.

**Personal protective equipment****Respiratory protection**

When working without/without sufficient suction of objects:  
Respirator with grey B-type filter  
Do not inhale fumes, dust, vapour.  
Draw off hydrogen fluoride vapours.

**Hand protection**

protective gloves

**Eye protection**

Safety glasses with side-shields

**Skin and body protection**

No particular measures required.

**Hygiene measures**

When using, do not eat, drink or smoke. Wash face and/or hands before break and end of work.  
After contact with skin, wash immediately with plenty of water.  
Do not swallow product.  
Use suitable skin protective agents before handling product. Cleanse and apply cream to skin after work.  
Preventive skin protection recommended.

**Protective measures**

Handle in accordance with good industrial hygiene and safety practices.  
If there is the possibility of skin/eye contact, the indicated hand/eye/body protection should be used.

**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form	paste
Colour	light brown
Odour	odourless

**Information on basic physical and chemical properties**

pH	ca. 8	(10 g / l)	(20 °C)
	Medium:	water	
Melting point/range	ca. 700 °C		
Boiling point/range	110 °C		
Density	ca. 1.50 g/cm <sup>3</sup>		

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Water solubility	ca. 180 g/l (20 °C)
Viscosity, dynamic	thixotropic paste

**10. STABILITY AND REACTIVITY**

Stability	Stable at room temperature.
Hazardous decomposition products	decomposition products if heated above melting point. hydrogen fluoride-vapours  decomposition products on heating sulphuric acid hydrogen fluoride
Possibility of hazardous reactions	No dangerous reactions are known to occur with correct handling and storage.

**11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	LD50 Rat: > 5110 mg/kg
Skin irritation	Rabbit not irritating
Eye irritation	Rabbit not irritating

**12. ECOLOGICAL INFORMATION****Further information on ecology**

Further Information	Danger to groundwater and drinking water. Do not allow into stretches of water without pre-treating. The following substances are to be precipitated from rinsing and washing water using lime milk and disposed of: flouride
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**13. DISPOSAL CONSIDERATIONS****Product**

Disposal according to local authority regulations.

**Uncleaned packaging**

Do not reuse empty containers and dispose of in accordance with the regulations issued by the appropriate local authorities.

**14. TRANSPORT INFORMATION**

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Not classified as dangerous in the meaning of transport regulations.

**15. REGULATORY INFORMATION****Labelling according to EC Directives****hazard-defining component(s)**

- tripotassium-hexafluoroaluminate

<b>R-pharse(s)</b>	R48/20/22	Harmful: danger of serious damage to health by prolonged exposure through inhalation and if swallowed.
<b>S-pharse(s)</b>	S23 S26 S28 S37/39	Do not breathe gas/fumes/vapour/spray. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of water. Wear suitable gloves and eye/face protection.

**National legislation**

employment restriction

Note employment restrictions for pregnant and lactating women.

**16. OTHER INFORMATION****Risk phrase (R phrase) texts****Further information**

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.