

Date of print: 2007-10-31
 Date of last alteration: 2007-10-31 - Version: English
 Art. -No., product name: **02678 smartpen®**

DETAX**1 Identification of the substance / preparation and of the company / undertaking**

- 1.1 Identification of the substance or preparation:
- 1.1.1 Commercial Product Name: smartpen®
- 1.1.2 Use: Cleaning pen for hearing aids.
- 1.2 Company / undertaking identification:
- Manufacturer / distributor: DETAX GmbH & Co. KG
 Street / POB-No.: Carl-Zeiss-Str. 4
 State / postal code / city: D-76275 Ettlingen
 Telephone: +49 7243/510-0 Telefax: +49 7243/510-100

2 Composition / information on ingredients

- 2.1 Chemical characterisation (preparation): Description: Mixture of aqueous-organic solvents.
- 2.2 Substances presenting a health hazard:
- | | | |
|------------------------|-----------------|--------------------------|
| | <u>Butanone</u> | <u>Isopropyl alcohol</u> |
| Concentration: | 15 – 25% | 15 - 25% |
| CAS-No.: | 78-93-3 | 67-63-0 |
| Identification letter: | F Xi | F Xi |
| EC/R: | 11-36-66-67 | 11-36-67 |

3 Hazards identification

- 3.1 Critical hazards to man and environment: Risk phrases: 11-36-66-67
 Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

4 First aid measures

- 4.1 General information: Take off all contaminated clothing.
- 4.2 After inhalation: Move immediately to fresh air. In case of respiratory distress, seek medical advice.
- 4.3 After contact with the skin: Wash immediately with plenty of water and soap. In case of persisting irritation, seek medical advice.
- 4.4 After contact with the eyes: Rinse the open eyes immediately with plenty of water for at least 15 minutes, seek immediately medical advice.
- 4.5 After swallowing: Rinse mouth well with water and drink plenty of water. If you feel unwell, seek medical advice.

5 Fire fighting measures

- 5.1 Suitable extinguishing media: Water mist, dry powder, foam, carbon dioxide.
- 5.2 Extinguishing media which must not be used for safety reasons: Water jet.
- 5.3 Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases: Do not breathe combustion gases.
- 5.4 Special protective equipment for fire fighting: Use respiratory protection independent of recirculated air. Accomplish decontamination by means of explosion-proofed equipment.

6 Accidental release measures

- 6.1 Personal precautions: Avoid unprotected exposure to the leaked liquid.
- 6.2 Environmental precautions: Observe local byelaws. Keep away from sewage treatment plants, in-shore waters and earth.
- 6.3 Methods for cleaning up: Remove with an absorbent cloth or wood pulp tissue, do not breathe vapours. Dispose of according to regulations.

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7 Handling and storage

- 7.1 Handling:
 Precautions for safe handling: Do not splash about the content of the pen. Avoid contact with eyes, skin and clothing.
 Precautions against fire and explosion: Keep away from sources of ignition - No smoking. Cool endangered pens with water mist.
- 7.2 Storage:
 Conditions for storage rooms and vessels: Store in a cool and dry place, away from foodstuffs. Provide for sufficient ventilation.
 Advice for storage of incompatible materials: Incompatible material are unknown.
 Further information for storage: Keep at temperature not exceeding 25 °C / 77 °F .

8 Exposure controls / personal protection

- 8.1 Further information for system design and engineering measures: No further information.
- 8.2 Associate substance with specific control parameters such as limit values (Air limits according to EC-guideline 2000/39/EC and TRGS 900 respectively):
- | CAS-No. | Substance | mg/m ³ |
|---------|-------------------|---------------------------------|
| 78-93-3 | Butanone | 600 mg/m ³ = 200 ppm |
| 67-63-0 | Isopropyl alcohol | 500 mg/m ³ = 200 ppm |
- 8.3 Personal protection equipment:
 General protection and hygiene measures: The usual precautions in handling with cleansing agents are to be observed. Do not breathe vapours.
 Respiratory protection: Not necessary, if the pen is applied appropriately.
 Hand protection: Not necessary, if the pen is applied appropriately.
 Eye protection: Not necessary, if the pen is applied appropriately.

9 Physical and chemical properties

- 9.1 Appearance:
 Form: Pen containing liquid agent
 Colour of the liquid: colourless
 Odour: like lemon
- 9.2 Safety parameters (referring to the cleansing liquid):
- | Parameter | Value | Method (67 / 548 / EC) |
|---|--|------------------------|
| Change in physical state: | | |
| Boiling point..... | = 72 °C / 162 °F | DIN 51356 |
| Flash point .. | = 3 °C / 37 °F | DIN 51755 |
| Inflammability | not available | |
| Ignition temperature | = approx. 400 °C / 752 °F | DIN 51794 |
| Autoflammability..... | not available | |
| Oxidising properties | not available | |
| Explosive properties..... | not available | |
| Explosion limits | not available | |
| Vapour pressure | = approx. 73 hPa at 20 °C/68 °F • approx. 30 kPa at 50 °C/122 °F | |
| Density | = approx. 0.96 g/cm ³ at 20 °C / 68 °F | DIN 51757 |
| Solubility in water | = miscible | |
| pH-value..... | = approx. 6 at 20 °C/68 °F | |
| Distribution coefficient octanol / water: | not available | |
| Viscosity..... | not available | Brookfield |
- 9.3 Further information:
 Thermal decomposition: not available

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DETAX**10 Stability and reactivity**

- 10.1 Conditions to avoid: Unknown.
 10.2 Materials to avoid: Unknown.
 10.3 Hazardous decomposition products: None, if stored and handled appropriately.

11 Toxicological information

- 11.0 General information: The liquid may irritate the skin and the mucous membranes of eyes and respiratory system. Due to the small amount of liquid that is filled in the pen, further undesired effects are not to be expected.
- 11.1 Acute toxicity:
 Acute inhalational toxicity (LC₅₀): species rat 16 000 ppm (4 h)
 origin: literature
 these data refer to the ingredient isopropyl alcohol.

12 Ecological information

- 12.1 Information on elimination (persistence and degradability): No data known.
 12.2 Behaviour in environmental compartments: No data known.
 12.3 Ecotoxicological effects:
 Effects in sewage treatment plants (bacteria toxicity: respiration-/reproduction inhibition): Do not introduce large amounts into purification plants.
 12.4 Further ecological information: Do not lead into wastewater. Do not introduce into in-shore waters and earth.

13 Disposal considerations

- 13.1 Material: Recommendation: Dispose of according to regulations. Used pens can be disposed of along with domestic waste. Observe the local bye-laws.
 European Waste Catalogue Ref.No.: 07 01 04 (AVV).
 13.2 Contaminated packaging: Recommendation: Fully empty containers (no tear drops, no powder rest, scraped carefully). Containers may be recycled or re-used.
 Observe local/national byelaws.

14 Transportation information

- 14.1 Land transportation ADR/RDI and GGVS/GGVE:
 GGVS/GGVE-class..... : 3 cl.-code F1
 ADR/RID-class..... : 3 cl.-code F1
 Transportation emergency card number: 3
 Warning board - Hazard No.: 33 Substance No.: 1993 PG: II
 Nomenclature..... : Flammable liquid, n.o.s.
 (Vapour pressure at 50 °C/122 °F not more than 110 kPa)
 Further information..... : Contains butanone, isopropyl alcohol
 Limited Quantities : LQ4 (3 L / 30 kg)
- 14.2 Inland navigation ADN/ADNR:
 Further information: No data available.
- 14.3 Transportation by sea IMDG/GGVsea:
 IMDG/GGVsea-class .. : 3 Label 3 UN-No.: 1993 PG: II
 EmS-No..... : F-E, S-E

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Marine pollutant : no
 Proper shipping name.. : Flammable liquid, n.o.s.
 Technical name..... : Contains butanone, isopropyl alcohol
 Flash point : 3 °C c.c.
 LTD. QTY..... : 1 L / 30 kg

- 14.4 Air transportation ICAO-TI and IATA-DGR transportation by air:
 ICAO/IATA-class..... : 3 UN-No.: 1993 PG: II Page: 187 (48 edition)
 Proper shipping name.. : Flammable liquid, n.o.s.
 Technical name..... : Contains butanone, isopropyl alcohol
 Packing regulations..... : PAC: 305 Max. net.: 5 L
 CAO: 307 Max. net.: 60 L
 Excepted Quantities..... : 30 mL / 500 mL
 LTD.QTY..... : 1 L / 30 kg (Y305)
 Air mail transportation...: not permitted

15 Regulatory information

15.1 Identification according to EC directives:

Identification letters:

F Xi Hazard indication: highly flammable, irritating
 Contains: Butanone, isopropyl alcohol.

EC/R: 11-36-66-67

Highly flammable. Irritating to eyes. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

EC/S: 2-16-24-26

Keep out of reach of children. Keep away from sources of ignition - No smoking. Avoid contact with eyes. In case of contact with eyes rinse immediately with plenty of water and seek medical advice.

15.2 National regulations (Germany):

Classification of possible adverse effects in the aquatic environment (Wassergefährdungsklasse):
 Class 2 (adverse effects in the aquatic environment)

Classification according to VbF: B

16 Other information

n.a. = not applicable

n.s. = not subject to

The above information describes exclusively the safety requirements of the product(s) and is based on our present-day knowledge. It does not represent a guarantee for the properties of the product(s) described in terms of the legal warranty regulations.