

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/BUSINESS**1.1 Identification of the substance/preparation****FILTROLIT****1.2 Use of the substance/preparation**

Filter material/adsorbent for removal of anorganics (especially heavy metals) out of drinking and process waters

1.3 Company/business information

BWT - AG

Walter Simmer Str. 4

A-5310 Mondsee - AUSTRIA

☎ + 43-6232-5011-0

Fax + 43-6232-5011-1229

1.3.1 Responsible person

Dipl. Ing. L. Nagl: +43-6232-5011-1505 (office hours)

E-mail.: lois.nagl@bwt.at

1.4 Emergency telephone

Poison information center Vienna ☎ +43-1-4064343

1.5 Date of issue/revision

07.05.2008

2. HAZARDS IDENTIFICATION**2.1 Hazards identification**

Not a hazardous product as specified in Directive 67/548/EEC

2.2 Special hazards information for persons and environment

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3. COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Chemical characterisation (substance)****3.1.1 Description**

Natural Zeolite

3.1.2 Hazardous components

None

3.1.3 Classification

CAS-No.: % mass

1318-02-1 100

R-phrases

None

Symbol

None

3.1.3 Identification numbers

EINECS No.: -

EEC number: -

4. FIRST AID MEASURES**4.1 General recommendations**

Do not inhale dust.

Avoid skin-/eye contact

4.2 After inhalation

Fresh air. In case of shortness of breath inhale oxygen.

4.3

Seek medical advice immediately

4.3 After skin contact

Remove contaminated clothing/shoes. Wash affected skin with plenty of running water.

4.4 After eye contact

Flush eyes with plenty of water for at least 10-15 minutes immediately while keeping the eyelids wide open. Consult an ophthalmologist immediately in all cases.

4.5 After ingestion

Rinse mouth immediately with plenty of water, spit out the water again and then drink plenty of water. Induce vomiting. Immediately summon a doctor.

4.6 Advice to doctor**5. FIRE FIGHTING MEASURES****5.1 Suitable extinguishing media**

To suit environment

5.2 Inappropriate extinguishing media

No restriction

5.3 Specific hazards

-

5.4 Special protective equipment

Not required

6. ACCIDENTAL RELEASE MEASURES**6.1 Person-related precautionary measures**

See item 8

6.2 Environmental precautions

Not required

6.3 Methods for cleaning up/taking up

Take up dry. Forward for disposal. Avoid formation of dust. Clean up the affected area with large quantities of water

6.4 Additional information

See items 7 and 13

7. HANDLING AND STORAGE

7.1 Handling

- | | | |
|-------|---|---|
| 7.1.1 | Advice on safety handling | No special requirements. Avoid formation of dust. |
| 7.1.2 | Unloaded filter material | Avoid formation of dust. Do not inhale dust
Keep container closed
Provide sufficient ventilation or wear suitable respiratory equipment. |
| 7.1.3 | Loaded/worn out filter material | Avoid contact with skin and eyes.
The filter material absorbs radioactive substances, therefore when used in water with increased radioactivity the local dosage rate on the filter should be monitored continuously. In case of increased radioactivity, personal dosimetry should be carried out.
Only open a filter with a safe local dosage rate.
To eliminate any increased radon concentration, provide suction or good ventilation when opening a filter. |
| 7.1.4 | Advice on protection against fire and explosion | Not required |

7.2 Storage

- | | | |
|-------|--|--|
| 7.2.1 | Requirements for storage rooms and vessels | Store tightly closed in a dry, well ventilated place |
| 7.2.2 | Advice on storage compatibility | - |
| 7.2.3 | Further information on storage conditions | Keep only in the original containers |

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Additional advice on system design

If the filter material is used in water with increased radioactivity, proper ventilation and, if necessary, shielding of filters/containers, as well as adsorption and drainage systems for filter backwash water is essential. The ventilation lines should be installed outside of the building (not in the suction area of the ventilation or air conditioning systems or in areas where people are located, if possible above the roof).

8.2 Ingredients with occupational exposure

- | | | |
|-------|--|---|
| 8.2.1 | CAS-No., Hazardous ingredient, Code, Value, Unit | Monitor local dosage rate radioactivity. Perform personal dosimetry. Effective dose: 20 mSv/a or 6 mSv/a for persons under the age of 18. Radon-222: 2×10^6 Bq x h/m ³ (intervention level) |
| 8.2.2 | Additional information | |

8.3 Personal protection equipment

- | | | |
|-------|--|--|
| 8.3.1 | Respiratory protection | In unusual situations and when handling loaded/worn out material, use particle filter P3 |
| 8.3.2 | Hand protection | Protective plastic gloves |
| 8.3.3 | Eye protection | Wear eye protection |
| 8.3.4 | Skin protection | Wear suitable protective clothing |
| 8.3.5 | General protective measures [^] | In case of increased radioactivity, pregnant women are not permitted in the area surrounding the filter. Before handling loaded/worn products, the type of contamination and the protective measures must be determined.
Keep away from food, drink and animal feed.
Change contaminated clothing.
Application of skin-protective barrier cream recommended |
| 8.3.6 | Hygiene measures | Do not eat/drink while working
Wash hands after work/before breaks |

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance

- | | | |
|-------|--------|---------------|
| 9.1.1 | Form | - |
| 9.1.2 | Colour | solid, glassy |
| 9.1.3 | Odour | brownish |
| 9.1.3 | Odour | odourless |

9.2 Data relevant for safety

- | | | | |
|-------|---------------------------|---------|------|
| 9.2.1 | pH-value | T=20 °C | - |
| 9.2.2 | Changes in physical state | | n.d. |

9.2.3	Flash point		n.a.
9.2.4	Ignition (solid/gas)		n.d.
9.2.5	Ignition temperature		n.a.
9.2.6	Autoignition (solid/gas)		n.a.
9.2.7	Oxidizing properties		n.a.
9.2.8	Explosive properties		n.a.
9.2.9	Explosive limits	Lower e.l./Upper e.l.:	none
9.2.10	Specific gravity		2.6 kg/l
9.2.11	Bulk density	(TI) 20 °C	1.2 kg/l
9.2.12	Solubility in water	T=25 °C	not soluble in water

10. STABILITY AND REACTIVITY

10.1	Conditions to avoid	Stable under normal conditions Strongly exothermic in contact with water
10.2	Materials to avoid	-
10.3	Hazardous decomposition products	none

11. TOXICOLOGICAL INFORMATION

11.1	Toxicity test	
11.1.1	Acute toxicity (LD ₅₀ /LC ₅₀ values relevant to classification)	LD ₅₀ oral, rat: 10000 mg/kg
11.1.2	Specific symptoms in biological assay	
11.1.3	Irritability/Corrosiveness	Slightly irritant to eyes and respiratory tract
11.1.4	Sensitization	-
11.1.5	Effects after short- or long-term exposure	Irritant for skin
11.1.6	Mutagenity, teratogenity, carcinogenity	
11.2	Experiences made in praxis	
11.2.1	Observations important for validation	For used products, observe contamination characteristics.
11.3		Up to now, no averse health effects are known

12. ECOLOGICAL INFORMATION

12.1	Data on elimination (persistence and degradability)	Inorganic product – not biodegradable
12.2	Behaviour in environmental compartments	
12.3	Ecotoxicological effects	
12.3.1	Aquatic toxicity	None
12.3.2	Behaviour in sewage plant	-
12.4	Further information/ecology	
12.4.1	COD-value	mg/kg
12.4.2	BOD-values	mg/g
12.4.3	AOX	-
12.4.4	Contains following heavy metals and compounds of 76/464/EEC	No organic halogens contained
12.4.5	General information	None

13. DISPOSAL CONSIDERATIONS

13.1	Product	-
13.1.1	Recommendations	There are no uniform EC regulations for the disposal of chemicals or residues. Chemical residues generally count as special waste. The disposal of the latter is regulated individually in the EC member countries. We recommend contacting the local authorities in charge or an approved waste disposal company
13.2	Contaminated packaging	
13.2.1	Recommendations	Disposal in compliance with official regulations. Handle contaminated packaging like the substance itself. If not officially specified differently, non-contaminated packaging may be treated like household waste or recycled.
13.2.2	Recommended cleansing agent	Water

14. TRANSPORT INFORMATION

Not subject to transport regulations

Loaded/worn filter material should be classified according to contamination.

15.

15.1 Labelling according to EC-regulations

15.1.1 Labelling	No labelling necessary according to EC directives
15.1.2 Symbols and hazard classification	-
15.1.3 Hazardous component(s) to be indicated on label	none
15.1.4 R-phrases	none
15.1.5 S-phrases	Not required

15.2 National regulations

15.2.1 Restriction of occupation	-
15.2.2 Degree of interference/remarks	-
15.2.3 Classification according to VbF/remarks	-
15.2.5 Water hazard class (German only)	WGK 1: non-polluting substance
15.2.6 Further information	When used in water with increased radioactivity radiation protection regulations must be observed.

16. OTHER INFORMATION

16.1 List of relevant R-phrases	Not required
16.2 Items changed	None

The information of this safety data sheet is based on the present state of our knowledge. It characterises the product with regard to the appropriate safety precaution. It does not represent a guarantee of the properties of the product.