

Redox: 1117212

Der Redoxfilter 1117212 besteht aus mikrokristallinem Filtermaterial, das in einer sogenannten Filterkartusche eingebettet ist.

Der Filter wird als 'Redoxfilter' bezeichnet, weil er mit nicht näher benannten gasförmigen Substanzen eine chemische Reaktion eingeht, wobei diese Substanzen oxidiert und das Filtermaterial Silbermanganat(VII) resp. AgMnO_4 , reduziert werden.

Die Sättigung des Filters ist durch Abweichungen im Justierverhalten des NOVASINA-Sensors gegeben.

Achtung: Selbst nach Gebrauch nicht anbohren oder verbrennen.

Die Entsorgung Redoxfilter 1117212 hat unter Beachtung der örtlichen und nationalen gesetzlichen Vorschriften als Sonderabfall zu erfolgen. Europäischer Abfallkatalog Code (EAK-Code): 15 02 02.

Filter-Kartusche Redox 1117212 ist ein Erzeugnis, für das keine gesetzliche Vorschrift für ein Sicherheitsdatenblatt abgeleitet werden kann.

Das Sicherheitsdatenblatt in der Anlage beschreibt ausschliesslich die Eigenschaften und Merkmale der enthaltenen Wirkungschemikalie Silbermanganat(VII) resp. AgMnO_4 . Die Merkmale der Reaktionsprodukte werden nicht weiter ausgewiesen.

The Redoxfilter 1117212 consists of microcrystalline filter material, which is embedded in a so-called filter cartridge.

The filter is termed as "Redox-filter" because it reacts with unspecified gaseous substances, whereby these substances are oxidized, whereas the filter material Silver manganate (VII), resp. AgMnO_4 is reduced.

The saturation of the filter is indicated by variations during calibration the NOVASINA sensor.

Attention: Do not pierce or burn the filter, even after use.

The disposal of the Redoxfilter 1117212 shall be made in compliance with local and national regulations as hazardous waste. European waste catalog code (EWC code): 15 02 02.

The filter cartridge is a product for which there is no legal requirement for a Material Safety Data Sheet (MSDS).

The MSDS provided hereby only covers the properties and characteristics of the active ingredient contained – Silver manganate (VII), respectively AgMnO_4 . The characteristics of the reaction products are not reported.

SAFETY DATA SHEET

according to Regulation (EU) No. 453/2010

Silver manganate (VII) (Redox-filter)

1. Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product code Redox-filter 1117212

Synonyms None.

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the Substance/Preparation Active ingredient: in NOVASINA-Filter Redox 1117212

1.3. Details of the supplier of the safety data sheet

Company/Undertaking Identification Novasina AG
Neuheimstrasse 12
CH-8853 Lachen
Switzerland

+41 55 642 67 67
Info-desk: info@novasina.ch / www.novasina.com

1.4. Emergency telephone number STIZ - Tel. 145 / +41 44 251 51 51 (Swiss Toxicological Info Centre) - 24h/7d)

Issuing date 19.12.2013

Version 1

2. Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 (GHS/CLP)

Acute toxicity, oral, Cat. 4, H302
Acute toxicity, dermal, Cat. 4, H312
Acute toxicity, inhal., Dusts and Mists, Cat. 4, H332
Serious eye damage/eye irritation, Cat. 2, H319
Oxidising solids, Cat. 2, H272

Classification according to EU Directives 67/548/EEC or 1999/45/EC

O; R8
Xn; R22

Additional information

For the full text of the phrases mentioned in this Section, see Section 16.

2.2. Label elements



Signal Word
Hazard Statements

Danger
H272: May intensify fire; oxidiser.
H302+H312+H332: Harmful if swallowed, in contact with skin or if inhaled.

Precautionary statements

H319: Causes serious eye irritation.
P210b: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P221: Take any precaution to avoid mixing with combustibles.
P260d: Do not breathe dust.
P280: Wear protective gloves/ protective clothing/ eye protection/ face protection.
P302+P352: IF ON SKIN: Wash with plenty of 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.
P405: Store locked up.
P501: Dispose of contents/ container to an approved waste disposal plant.

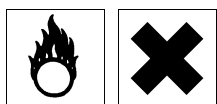
Additional advice

None.

GHS product identifier

Silver manganate (VII), CAS-No. 7783-98-4, EC-No. 232-040-1

Labelling according to Directives 67/548/EEC or 1999/45/EC



O - Oxidising.
Xn - Harmful.

R-phrases(s)

R8: Contact with combustible material may cause fire.
R22: Harmful if swallowed.

S-phrases(s)

S1: Keep locked up.
S17: Keep away from combustible material.
S36/37: Wear suitable protective clothing and gloves.
S29/56: Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

Hazardous component(s) which must be listed on the label

Silver manganate (VII), CAS-No. 7783-98-4, EC-No. 232-040-1

2.3. Other hazards

Contact with combustible material may cause fire.

3. Composition/information on ingredients

Components		Product identifier
Silver manganate (VII)	> 90%	CAS-No.: 7783-98-4 EC-No.: 232-040-1

For the full text of the phrases mentioned in this Section, see Section 16.

Hazardous impurities

None known.

4. First aid measures

4.1. Description of first aid measures

Inhalation

Move to fresh air. Consult a physician for severe cases.

Skin contact

Wash off immediately with plenty of water. If skin irritation persists, call a physician.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Protect unharmed eye. If eye irritation persists, consult a specialist.

Ingestion

Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice.

4.2. Most important symptoms and effects, both acute and delayed

None known.

4.3. Indication of any immediate medical attention and special treatment needed

None known.

5. Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray mist or foam.

Extinguishing media which must not be used for safety reasons

High volume water jet.

5.2. Special hazards arising from the substance or mixture	Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Oxidizing agents.
5.3. Advice for firefighters	
Special protective equipment for firefighters	Standard procedure for chemical fires.
Specific methods	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel	Use personal protective equipment. Avoid contact with skin and eyes. Avoid dust formation. Do not breathe vapours/dust.
Advice for emergency responders	Avoid dust formation. Use personal protective equipment.

6.2. Environmental precautions	Do not flush into surface water or sanitary sewer system.
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6.3. Methods and material for containment and cleaning up	Use mechanical handling equipment. Keep in suitable and closed containers for disposal.
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6.4. Reference to other sections	See chapter 8 and 13.
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7. Handling and storage

7.1. Precautions for safe handling	Wear personal protective equipment. Avoid contact with skin and eyes. Avoid dust formation. Keep away from combustible material.
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7.2. Conditions for safe storage, including any incompatibilities	Store in a place accessible by authorized persons only. Store in original container. Keep container tightly closed.
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7.3. Specific end use(s)	Use only in accordance with our recommendations.
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8. Exposure controls/personal protection

8.1. Control parameters

Exposure limit(s)	respirable dust Exposure limit(s): 0.01 mg/m ³ .
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8.2. Exposure controls

Occupational exposure controls	Handle in accordance with good industrial hygiene and safety practice.
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Personal protection equipment

<i>Respiratory protection</i>	Effective dust mask. Half mask with a particle filter P2 (EN 143).
<i>Hand protection</i>	Protective gloves complying with EN 374. Gloves made of Nitril. Break through time: > 6 h.
<i>Eye protection</i>	Safety glasses with side-shields conforming to EN 166. Eye wash bottle with pure water.
<i>Skin and body protection</i>	Lab coat. Choose body protection according to the amount and concentration of the dangerous substance at the work place.
Thermal hazards	Oxidizing agents. Keep product and empty container away from heat and sources of ignition.
Environmental exposure controls	Prevent product from entering surface water or sewage.

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Solid.
Colour	Black.
Odour	None.
Odour Threshold	No information available.
pH:	not applicable
Melting point/range:	No information available.
Boiling point/range:	No information available.
Flash point:	No information available.
Evaporation Rate:	No information available.
Flammability:	No information available.
Explosion limits:	No information available.
Vapour pressure:	No information available.
Vapor density:	No information available.
Relative density:	4.49
Water solubility:	9 g/L (20°C)
Partition coefficient (n-octanol/water):	No information available.
Autoignition temperature:	No information available.
Decomposition temperature:	No information available.
Viscosity:	No information available.
Combustion/explosion hazards:	May form flammable dust-air mixture.
Oxidizing properties:	oxidising

9.2. Other information

General Product Characteristics	No information available.
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10. Stability and reactivity

10.1. Reactivity	Risk of ignition.
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10.2. Chemical stability	No decomposition if stored and applied as directed.
10.3. Possibility of hazardous reactions	May form explosive dust-air mixture.
10.4. Conditions to avoid	Avoid creating dust. Direct sources of heat.
10.5. Incompatible materials	Flammable materials. Reducing agents.
10.6. Hazardous decomposition products	None under normal use.

11. Toxicological information

11.1. Information on toxicological effects

Acute toxicity	No data is available on the product itself.
Skin corrosion/irritation	May irritate skin.
Serious eye damage/eye irritation	Severe eye irritation.
Respiratory / Skin Sensitisation	None.
Carcinogenicity	Carcinogenicity classification not possible from current data.
Germ cell mutagenicity	Classification not possible from current data.
Reproductive toxicity	Classification not possible from current data.
Specific target organ toxicity (single exposure)	No data available.
Specific target organ toxicity (repeated exposure)	No data available.
Aspiration hazard	No data available.
Human experience	No data available.

12. Ecological information

12.1. Toxicity No information available.

Silver manganate (VII) (CAS 7783-98-4)

No data is available on the product itself.

12.2. Persistence and degradability No information available.

12.3. Bioaccumulative potential Bioaccumulation is unlikely.

12.4. Mobility in soil No information available.

12.5. Results of PBT and vPvB assessment	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
12.6. Other adverse effects	No information available.

13. Disposal considerations

13.1. Waste treatment methods

Waste from residues / unused products	Do not empty into drains or dispose with household waste. In accordance with local and national regulations. Product rest to be treated as hazardous waste.
Contaminated packaging	Also after use, do not open with force or burn. Dispose of as unused product.

14. Transport information

ADR/RID	Proper shipping name OXIDIZING SOLID, N.O.S. (Silver manganate (VII)) UN No 1479. Class 5.1. Packing group III. ADR/RID-Labels 5.1. Classification code O2. Risk No. 50. Limited quantity 5 kg. Tunnel code E
IMDG	Proper shipping name Oxidizing solid, n.o.s. (Silver manganate (VII)) UN No 1479. Class 5.1. Packing group III. IMDG-Labels 5.1. Limited quantity 5 kg. EmS F-A, S-Q. Marine Pollutant no
IATA	Proper shipping name Oxidizing solid, n.o.s. (Silver manganate (VII)) UN No 1479. Class 5.1. IATA label 5.1. Packing group III. Packing instruction (passenger aircraft): 559 (25 kg). Packing instruction (LQ): Y546 (10 kg). Packing instruction (cargo aircraft): 563 (100 kg).
Further Information	None.

15. Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Regulatory Information	Water contaminating class 2. Merkblatt BG Chemie: M050 Umgang mit Gefahrstoffen (für die Beschäftigten) VOC (CH) = 0%
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15.2. Chemical safety assessment	Not required.
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16. Other information

Key or legend to abbreviations and acronyms	CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS/CLP) DSD/DPD: Classification according to EU Directives 67/548/EEC or 1999/45/EC VOC: Volatile organic compounds (VOC) content
Key literature references and sources for data	Information taken from reference works and the literature.
Classification procedure	Calculation method.
Full text of phrases referred to under sections 2 and 3	H272: May intensify fire; oxidiser. H302: Harmful if swallowed. H312: Harmful in contact with skin. H319: Causes serious eye irritation. H332: Harmful if inhaled. R22: Harmful if swallowed. R8: Contact with combustible material may cause fire.
Training advice	For further information, refer to the product technical data sheet.
Further information	Take notice of the directions of use.
Instructions for use	Restricted to professional users. Keep away from children.
Disclaimer	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. It is not to be considered a warranty or quality specification.