

# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006  
(amended by Regulation (EU) 2015/830)

## Silbermanganat (VII) - Redox Filter

### **SECTION 1: Identification of the substance/mixture and of the company/undertaking**

#### 1.1. Product identifier

**Product name** Silbermanganat (VII) - Redox Filter

**Synonyms** NOTE:

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

The filter is termed as "Redoxfilter" because it reacts with unspecified gaseous substances, whereby these substances are oxidized, whereas the filter material Silver manganate (VII), resp.  $\text{AgMnO}_4$  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 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  $\text{AgMnO}_4$ . The characteristics of the reaction products are not reported.

**Product code** 1117212, 2601330

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

**Use of the Substance/Mixture** Silvermanganate(VII):  
- Redox agent in NOVASINA-Redox Filter

**Uses advised against** No further relevant information available.

#### 1.3. Details of the supplier of the safety data sheet

Silbermanganat (VII) - Redox Filter

Print Date 30.12.2019

1 / 9

<b>Company/Undertaking Identification</b>	Novasina AG Neuheimstrasse 12 CH-8853 Lachen Switzerland  +41 55 642 67 67 Info-desk: info@novasina.ch / www.novasina.com
<b>1.4. Emergency telephone number</b>	Tox Info Suisse : [24h/7d] Tel. 145 / +41 44 251 51 51 – info@toxi.ch
<b>Issuing date</b>	01.01.2020
<b>Version</b>	2

---

## **SECTION 2: Hazards identification**

### **2.1. Classification of the substance or mixture**

<b>Classification according to Regulation (EC) No. 1272/2008</b>	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
--	--

<b>Additional information</b>	For the full text of the phrases mentioned in this Section, see Section 16.
-------------------------------	---

### **2.2. Label elements**



<b>Signal Word</b>	Danger
<b>Hazard Statements</b>	H272: May intensify fire; oxidiser. H302+H312+H332: Harmful if swallowed, in contact with skin or if inhaled. H319: Causes serious eye irritation.
<b>Precautionary statements</b>	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 soap and 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.
<b>Supplemental information</b>	None.

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

**Contents of package < 125 ml**



Danger

H302+H312+H332: Harmful if swallowed, in contact with skin or if inhaled.

P262: Do not get in eyes, on skin, or on clothing.

P260: Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.

**2.3. Other hazards** Contact with combustible material may cause fire.

---

## **SECTION 3: Composition/information on ingredients**

### **3.2. Mixtures**

<b>Components</b>		<b>CLP Classification</b>	<b>Product identifier</b>
Silver manganate (VII)	> 90%	Acute Tox. 4 H302, Acute Tox. 4 H312, Eye Irrit. 2 H319, Acute Tox. 4 H332, Ox. Sol. 2 H272	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.

---

## **SECTION 4: First aid measures**

### **4.1. Description of first aid measures**

<b>Inhalation</b>	Move to fresh air. Consult a physician for severe cases.
<b>Skin contact</b>	Wash off immediately with plenty of water. If skin irritation persists, call a physician.
<b>Eye contact</b>	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.
<b>Ingestion</b>	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.

## **SECTION 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.

---

## **SECTION 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.

**6.3. Methods and material for containment and cleaning up** Use mechanical handling equipment. Keep in suitable and closed containers for disposal.

**6.4. Reference to other sections** See chapter 8 and 13.

---

## **SECTION 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.

**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.

**7.3. Specific end use(s)** Use only in accordance with our recommendations.

## **SECTION 8: Exposure controls/personal protection**

### **8.1. Control parameters**

**Exposure limit(s)**                      respirable dust  
Exposure limit(s): 0.01 mg/m<sup>3</sup>.

### **8.2. Exposure controls**

**Appropriate engineering controls**    Handle in accordance with good industrial hygiene and safety practice.

#### **Personal protection equipment**

*Respiratory protection*                      Effective dust mask. Half mask with a particle filter P2 (EN 143).

*Hand protection*                              Protective gloves complying with EN 374. Gloves made of Nitril. Break through time: > 6 h.

*Eye protection*                                Safety glasses with side-shields conforming to EN166. Eye wash bottle with pure water.

*Skin and body protection*                      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.

## **SECTION 9: Physical and chemical properties**

### **9.1. Information on basic physical and chemical properties**

<b>Appearance</b>	Solid.
<b>Colour</b>	Black.
<b>Odour</b>	None.
<b>Odour Threshold</b>	Not determined.
<b>pH:</b>	not applicable
<b>Melting point/range:</b>	Not determined.
<b>Boiling point/range:</b>	°C
<b>Flash point:</b>	Not determined.
<b>Evaporation Rate:</b>	Not determined.
<b>Flammability:</b>	Not determined.
<b>Explosion limits:</b>	Not determined.
<b>Vapour pressure:</b>	Not determined.
<b>Vapor density:</b>	Not determined.
<b>Relative density:</b>	4.49
<b>Water solubility:</b>	9 g/L (20°C)
<b>Partition coefficient (n-octanol/water):</b>	Not determined.
<b>Autoignition temperature:</b>	Not determined.
<b>Decomposition temperature:</b>	Not determined.
<b>Viscosity:</b>	Not determined.

**Explosive properties:** May form flammable dust-air mixture.  
**Oxidising properties:** oxidising

## 9.2. Other information

**General Product Characteristics** No information available.

---

## **SECTION 10: Stability and reactivity**

**10.1. Reactivity** Risk of ignition.

**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.

---

## **SECTION 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.

## **SECTION 12: Ecological information**

<b>12.1. Toxicity</b>	No information available.
<b>Silver manganate (VII) (CAS 7783-98-4)</b> No data is available on the product itself.	
<b>12.2. Persistence and degradability</b>	No information available.
<b>12.3. Bioaccumulative potential</b>	Bioaccumulation is unlikely.
<b>12.4. Mobility in soil</b>	No information available.
<b>12.5. Results of PBT and vPvB assessment</b>	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT).
<b>12.6. Other adverse effects</b>	WGK-D: 2 - distinctly water contaminating.

---

## **SECTION 13: Disposal considerations**

<b>13.1. Waste treatment methods</b>	
<b>Waste from residues / unused products</b>	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. European Waste catalogue code (EWC-code): 15 02 02.
<b>Contaminated packaging</b>	Also after use, do not open with force or burn.

---

## **SECTION 14: Transport information**

<b>ADR/RID</b>	UN 1479. Proper shipping name: OXIDIZING SOLID, N.O.S. (Silver manganate (VII)). Class 5.1. Packing group III. ADR/RID-Labels 5.1. Classification code O2. Hazard identification no. 50. Limited quantity 5 kg. Excepted quantity E1. Tunnel restriction code E
----------------	--

<b>IMDG</b>	UN 1479. Proper shipping name: OXIDIZING SOLID, N.O.S. (Silver manganate (VII)). Class 5.1. Packing group III. IMDG-Labels 5.1. Limited quantity 5 kg. Excepted quantity E1. EmS F-A, S-Q. Marine pollutant: No.
<b>IATA</b>	UN 1479. Proper shipping name: Oxidizing solid, n.o.s. (Silver manganate (VII)). Class 5.1. Packing group III. IATA label 5.1. Packing instruction (passenger aircraft): 559 (25 kg). Packing instruction (LQ): Y546 (10 kg). Packing instruction (cargo aircraft): 563 (100 kg).
<b>Inland navigation ADN</b>	UN 1479. Proper shipping name: OXIDIZING SOLID, N.O.S. (Silver manganate (VII)). Class 5.1. Packing group III. ADN labels 5.1. Classification code O2. Limited quantity 5 kg. Excepted quantity E1.
<b>Further Information</b>	None.

---

## **SECTION 15: Regulatory information**

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

**Regulatory Information**                      Storage class 5. (CH)

**15.2. Chemical safety assessment**                      Not required.

---

## **SECTION 16: Other information**

<b>Key or legend to abbreviations and acronyms</b>	CLP: Classification according to Regulation (EC) No. 1272/2008 (GHS) DSD/DPD: Classification according to EU Directives 67/548/EEC or 1999/45/EC VOC: Volatile organic compounds (VOC) content
<b>Key literature references and sources for data</b>	Information taken from reference works and the literature.
<b>Classification procedure</b>	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.

**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.