

## Material Safety Data Sheet

### According to 91/155 EEC

Reviewed on 15.02.2006

#### \* 1 Identification of substance:

- **Product details:** Reagent for water analysis
- **Product name:** Silica HR Set (Silica HR Molybdate)
- **Catalog number:** 251 412 **Model:** Si-2 TP (HR)
- **Supplier:**  
WTW Wissenschaftlich-Technische Werkstätten GmbH  
Dr.-Karl-Slevogt-Straße 1  
D-82362 Weilheim  
Fax: +49(0)881 183-420  
Tel.: +49(0)881 183-0  
Tel.: +49(0)881 183-100  
Internet: <http://www.WTW.com>  
E-Mail: [Info@WTW.com](mailto:Info@WTW.com)
- **Emergency information:**  
Poison Center Berlin, Germany  
phone: +49(0)30 19240

#### 2 Composition/Data on components:

- **Chemical characterization:**
- **CAS No. Designation:**  
10102-40-6 sodium molybdate
- **Identification number(s):**
- **EINECS Number:** 231-551-7

#### \* 3 Hazards identification

- **Hazard designation:** void
- **Information pertaining to particular dangers for man and environment** void

#### \* 4 First aid measures

- **General information** Instantly remove any clothing soiled by the product.
- **After inhalation** Supply fresh air.
- **After skin contact** Instantly wash with water and soap and rinse thoroughly.
- **After eye contact** Rinse opened eye for several minutes under running water.
- **After swallowing**  
Drink copious amounts of water, induce vomiting.  
In case of persistent symptoms consult doctor.
- **Information for doctor**
- **The following symptoms may occur:**  
after inhalation:  
coughing  
mucous membrane irritation  
after swallowing:  
sickness  
diarrhoea  
vomiting  
general feeling of sickness

(Contd. on page 2)

# Material Safety Data Sheet

## According to 91/155 EEC

Reviewed on 15.02.2006

---

**Product name: Silica HR Set (Silica HR Molybdate)**

---

---

drop in blood pressure

---

(Contd. of page 1)

---

**\* 5 Fire fighting measures**

---

- **Suitable extinguishing agents** Use fire fighting measures that suit the environment.
  - **Protective equipment:**
    - Wear self-contained breathing apparatus.
    - Wear full protective suit.
  - **Additional information**
    - Ambient fire may liberate hazardous vapours.
    - Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
    - Collect contaminated fire fighting water separately. It must not enter drains.
- 

---

**6 Accidental release measures**

---

- **Person-related safety precautions:**
    - Wear protective equipment. Keep unprotected persons away.
    - Avoid causing dust.
  - **Measures for environmental protection:** Do not allow product to reach sewage system or water bodies.
  - **Measures for cleaning/collecting:**
    - Collect mechanically.
    - Ensure adequate ventilation.
    - Dispose of contaminated material as waste according to item 13.
  - **Additional information:** No dangerous materials are released.
- 

---

**\* 7 Handling and storage**

---

- **Handling**
  - **Information for safe handling:** Thorough dedusting.
  - **Information about protection against explosions and fires:** The product is not flammable
  - **Storage**
  - **Requirements to be met by storerooms and containers:** Store in cool location.
  - **Information about storage in one common storage facility:** Not required.
  - **Further information about storage conditions:**
    - Store under dry conditions.
    - Protect from humidity and keep away from water.
    - Protect from the effects of light.
- 

---

**\* 8 Exposure controls and personal protection**

---

- **Components with limit values that require monitoring at the workplace:**
    - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - **Additional information:** The lists that were valid during the compilation were used as basis.
  - **Personal protective equipment**
  - **General protective and hygienic measures**
    - The usual precautionary measures should be adhered to general rules for handling chemicals.
  - **Breathing equipment:** Use breathing protection against the effects of fumes/dust/aerosol.
  - **Recommended filter device for short term use:** Filter P1
  - **Protection of hands:**
    - Preventive skin protection by use of skin-protecting agents is recommended.
    - No chemical-protective gloves required.
  - **Eye protection:** Safety glasses
- 

(Contd. on page 3)

# Material Safety Data Sheet

## According to 91/155 EEC

Reviewed on 15.02.2006

Product name: **Silica HR Set** (Silica HR Molybdate)

(Contd. of page 2)

· **Body protection:** Protective work clothing.

### 9 Physical and chemical properties:

|                                                          |                             |
|----------------------------------------------------------|-----------------------------|
| · <b>Form:</b>                                           | Powder                      |
| · <b>Colour:</b>                                         | White                       |
| · <b>Odour:</b>                                          | Odourless                   |
| · <b>Melting point/Melting range:</b>                    | 690°C                       |
| · <b>Boiling point/Boiling range:</b>                    | Not applicable              |
| · <b>Flash point:</b>                                    | Not applicable              |
| · <b>Inflammability (solid, gaseous)</b>                 | Product is not inflammable. |
| · <b>Danger of explosion:</b>                            | Product is not explosive.   |
| · <b>Density at 20°C</b>                                 | 3.6 g/cm <sup>3</sup>       |
| · <b>Settled apparent density at 20°C</b>                | ~ 1000 kg/m <sup>3</sup>    |
| · <b>Solubility in / Miscibility with Water at 20°C:</b> | 840 g/l                     |
| · <b>pH-value (10.3 g/l) at 20°C:</b>                    | 7.2                         |
| · <b>Organic solvents:</b>                               | 0.0 %                       |
| · <b>Solids content:</b>                                 | 100.0 %                     |

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** To avoid thermal decomposition do not overheat.
- **Dangerous reactions** No dangerous reactions known
- **Dangerous products of decomposition:** see chapter 5

### \*11 Toxicological information

· **Acute toxicity:**

|                                                               |      |                    |
|---------------------------------------------------------------|------|--------------------|
| · <b>LD/LC50 values that are relevant for classification:</b> |      |                    |
| <b>10102-40-6 sodium molybdate</b>                            |      |                    |
| Oral                                                          | LD50 | 4233 mg/kg (rat)   |
| Dermal                                                        | LD50 | > 2000 mg/kg (rat) |

· **Primary irritant effect:**

- **on the skin:** temporary erythema possible
- **on the eye:** Irritant effect.
- **Sensitization:** No sensitizing effect known.

· **Experience with humans:**

molybdenum(VI):  
Can cause liver damages.  
Can cause kidney damages.

· **Additional toxicological information:**

When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.

The material is not subject to classification according to EC lists in the last version.

(Contd. on page 4)

# Material Safety Data Sheet

## According to 91/155 EEC

Reviewed on 15.02.2006

**Product name:** Silica HR Set (Silica HR Molybdate)

(Contd. of page 3)

The usual precautionary measures should be adhered to general rules for handling chemicals.

### \*12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:** Methods for the determination of biodegradability are not applicable to inorganic substances.
- **Ecotoxicological effects:**

- **Aquatic toxicity:**

**10102-40-6 sodium molybdate**

EC50 330 mg/l/48h (Daphnia magna)

LC50 7600 mg/l/96h (Oncorhynchus mykiss)

- **Remark:**

Toxic for fish:

molybdenum compounds in general: &gt; 25 mg/l

- **Algae toxicity:** CAS-No. 10102-40-6: Selenastrum capricornutum IC50: > 100 mg/l/72 h
- **Bacterial toxicity:** CAS-No. 10102-40-6: Pseudomonas putida EC10: 50 mg/l/18 h

- **General notes:**

Water hazard class 1 (German Regulation) (Assessment by list): slightly hazardous for water.

Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

Must not reach sewage water or drainage ditch undiluted or unneutralized.

### 13 Disposal considerations

- **Product:**
- **Recommendation** Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

16 05 09 discarded chemicals other than those mentioned in 16 05 06, 16 05 07 or 16 05 08

- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### 14 Transport information

- **Land transport ADR/RID (cross-border)**
- **ADR/RID-GGVS/E Class:** -

- **Maritime transport IMDG:**

- **IMDG Class:** -
- **Marine pollutant:** No

- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **Transport/Additional information:** Not dangerous according to the above specifications.

— GB —  
(Contd. on page 5)

# Material Safety Data Sheet

## According to 91/155 EEC

Reviewed on 15.02.2006

---

**Product name: Silica HR Set (Silica HR Molybdate)**

---

(Contd. of page 4)

### \*15 Regulatory information

**· Designation according to EC guidelines:**

The product is not subject to identification regulations under EC Directives and the Ordinance on Hazardous Materials (GefStoffV).

### 16 Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**· Department issuing data specification sheet:** Department TSS, Dr. Manfred Kaul**· Data compared to the previous version altered.**

---

GB

---