

Safety Data Sheet

In accordance with Regulation (EC) No. 1907/2006

Trade name of the product: Sodiummetatungstate / Sodumpolytungstate

Revised in: November 2009

Version: 01/2009

Printed in: November 2009

01. Identification of the substance/preparation and the company

Product name: Sodiummetatungstate / Sodumpolytungstate

Application/Use: For the preparation of aqueous heavy-liquids

Producer/Supplier: TC-Tungsten Compounds

Street: Tannenweg 2

Postal code: 96271 Grub am Forst, Germany.

Contact for technical information:

Contact Person: Dr. Rainer Kamps

Tel.: +49 (0)9560-742

Fax: +49 (0)9560-1707

e-mail: service@heavy-liquid.com

Emergency telephone number round the clock: 0049 (0) 228-19 240

Universitätsklinikum Bonn -Center of Information about contamination-

02. Hazards Identification

Classification (in accordance with Directive 67/548/EEC)

Xn; R22, Xi; R41, R 52/53

Hazards to human health and the environment

Harmful if swallowed. Risk of serious damage to eyes. Harmful to aquatic organisms. May cause long - term adverse effects in the aquatic environment.

03. Composition/Information on ingredients

Chemical characteristics

Sodiummetatungstate: CAS No. CAS No: 12141-67-2 ; CAS No : 12333-13-0

EG #: 412-770-9, Index No. 074-001-00-1

Hazardous components

Sodiummetatungstate, percentage: 100 %

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04. First - aid measures

General information

Inhalation

After inhalation, take the patient into the fresh air. Symptomatic treatment

Skin contact

After contact with skin, wash immediately with plenty of water.

Eye contact

After contact with the eyes, rinse eyes with water for at least 15 minutes, keeping the lids open.

Consult a doctor.

Ingestion

In case of swallowing, drink plenty of water. Induce vomiting. Symptomatic treatment.

Consult a doctor.

05 . Fire - fighting measures

Suitable extinguishing media

No restriction in fire situation

Special risk due to the substance or the preparation itself, its combustion products or the gas being produced:

In case of fire, tungsten trioxide is formed (solid substance).

Special protective equipment when fighting fires:

Firemen have to wear self-contained breathing apparatus which must be adjusted to the fire situation.

06. Measures to be taken in the event of accidental release

Personal precaution

Avoid contact with skin and eyes,

Use the personal protective equipment listed in Chapter 8.

(Wear safety glasses, gloves and lab coat)

Environmental precaution

Do not empty into drains or waters.

Method for clean up / taking up

Method for cleaning up/taking up: Take up mechanically, avoid dust formation. Fill into labelled, sealable containers. Note German Technical Regulation on Dangerous Substances No. 200/201.

Additional references

Observe general warnings on the handling of chemicals.

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07. Handling and storage

Information on safe handling

Avoid contact with skin and eyes.

Use the personal protective equipment listed in Chapter 8.

Information on fire and explosion prevention:

none

Storage / Requirements as to storerooms and containers

It is recommended to use filling and siphoning units which can be sealed in a dust-tight manner.

The Wasserhaushaltsgesetz (Water Resources Management Act), the relevant Landeswassergesetz (Local Waste Water Act) as well as the Regulations on Plants for Storing, Filling and Transportation of Substances which are Hazardous to Water must be observed.

Information on common storage

Products of Storage Class 13 may be stored in the same section of the warehouse.

Further information on storage conditions:

Keep in sealed original containers in a dry place.

Storage Class according to the VCI (Association of the German Chemical Industry): 13

08. Exposure controls/Personal protection

For exposure controls see Chapter 2.

Respiratory protection

While filling the substance into receptacles, wear respiratory masks or use respiratory equipment with filter type P in accordance with DIN EN 143.

Hand protection

Wear protective gloves, e.g. disposable gloves Cat. III in accordance with EN 374.

Eye protection

Tightly fitting protective goggles (acid-protection goggles).

Body protection:

Wear protective clothing.

Other controls (work hygiene)

Do not eat, drink or smoke if you use this substance. Do not let this substance come into contact with food or beverages.

09. Physical and chemical properties

Appearance/Form: crystalline powder or granules or aqueous solution

State of aggregation: solid or liquid (aqueous solution)

Colour: solid substance – ranging from white to grey; solution – ranging from colourless to slightly greenish or brownish.

Odour: odourless

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Important health, safety and environmental information

pH value: approx. 3 at 4000 g/l water at 20 °C

Melting point: decomposition

Spontaneous flammability: no

Inflammability: no

Explosive properties: not relevant

Ignition temperature: not relevant

Oxidizing properties: no

Boiling point: not applicable for crystals

Boiling point of solution: > 100 °C (depending on the density of the aqueous solution)

Vapour pressure: not relevant

Density: approx. 5.47 g/cm³ at 20 °C

Bulk density: approx. 1570 kg/m³

Solubility in water: > 1000 g/l at 20 °C

Solubility in fat: < 0.7 mg/100 g fat at 37 °C

Partition coefficient n-octanol/water: Log POW = < - 5.2 at 20 °C

Viscosity: not applicable for crystals;

Viscosity of the solution: > 1 mPas (depending on the density of the aqueous solution)

10. Stability and reactivity

Conditions to be avoided: none

Substances to be avoided: none known

Hazardous decomposition products: in case of fire, the solid substance tungsten trioxide is formed.

Further information: at room temperature stable product

11. Toxicological information

Toxicological tests

Acute toxicity: LD₅₀ oral, rat: 1715 mg/kg

Acute toxicity: LD₅₀ dermal, rat: > 2000 mg/kg

Irritation of the eyes/rabbit: irritant, risk of serious damage to eyes
(method: Directive 84/449/EEC, B.5.).

Irritation of the skin/rabbit (exposure 4 h): non-irritant.
(method: Directive 84/449/EEC, B.4.).

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Non-sensitizing

(method: Directive 84/449/EEC, B.6.): Magnusson and Kligman maximization test

Effect after repeated or long-lasting exposure

Subacute toxicity:

NOEL, oral, rat: 150 mg (28-day test)

Mutagenic effect:

Salmonella/microsome test (Ames test): No indication of mutagenic effects.

Micronucleus test: No indication of plastogenic effects.

Laboratory experience

Material is used only as aqueous solution.

Information about substance of content

No further substances > 0.1 % exist.

12. Ecological Information

Ecology

Aquatic toxicity

96 h LC₀ = 320 mg/l (Cyprinus carpio)

96 h LC₅₀ = 420 mg/l (Cyprinus carpio)

Acute toxicity for daphnia:

48 h NOEC : 32 mg/l (Daphnia magna)

48 h EC₅₀ : 83 mg/l (Daphnia magna)

Persistence

No data available

Bioaccumulation potential

No data available

Other dangerous effects

Not known

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13. Disposal considerations

Material/Formulation

Unused material: reuse if possible. Address manufacturer for this purpose.

Recommendation

May be disposed of in approved landfills provided local regulations are observed.

Waste Code Number in accordance with the AVV (Waste Register Ordinance)

51540

Packaging/Contaminated packaging

Packaging which has not been cleaned is to be handled in the same manner as the substance.

14. Transport information

GGVSee*/IMDG Code: -- UN No.: -- EmS: --

* (Ordinance on Dangerous Goods with respect to Sea Traffic)

PG: -- MPO: NO

GGVSE**: Class -- PG: -- RID/ADR: Class -- PG: --

** (Ordinance on Dangerous Goods with respect to Road and Railway Traffic)

Warning sign: Hazard no. -- Substance no. --

ADNR: Class -- PG: -- Cat --

ICAO/IATA - DGR: **not restr.**

Approved in Germany as expedited freight (in accordance with the GGVSE): yes

Declaration for land shipment: --

Declaration for sea shipment: --

Declaration for shipment by air: --

Other information: **No dangerous cargo.** Keep separate from foodstuffs and natural stimulants.

15. Regulatory information

Labelling in accordance with Directive 67/548/EEC

Information on the warning label



Xn

Risk phrases: Harmful

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Risk phrases

- R 22: Harmful if swallowed.
- R 41: Risk of serious damage to eyes.
- R 52: Harmful to aquatic organisms.
- R 53: May cause long-term adverse effects in the aquatic environment.

Safety phrases

- S 2: Keep away from children.
- S 22: Do not inhale dust.
- S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S 39: Wear eye/face protection.
- S 61: Avoid release to the environment. Refer to special instructions/Safety Data Sheets.

National regulations (German regulation)

TRGS 900 „Atmospheric Threshold Value“
Tungsten compounds, soluble
Threshold: 1 mg/m³; Remark: 1.25

Handling restriction:

Jugendarbeitsschutzgesetz (JArbSchG) (Youth Employment Protection Act) : § 22
Mutterschutzrichtlinienverordnung (MuSchRiV) (Ordinance concerning the Guideline on Maternal Protection): § 5

Major Accidents Regulation:

not listed in the appendices

Regulation on Flammable Liquids:

not applicable

Technical Instruction on Air Pollution Control:

Item 3.1.3 total dust
Water Pollution Class (WGK): 2 - impairment of water quality
WGK = Classification in accordance with the German Water Resources Act

All other countries

Observe national regulations.

16. Other information

Further information regarding the application

Tested for laboratory use only. May exclusively be used by people who have the appropriate technical knowledge.

This material is only to be used for aqueous heavy-liquids.