

Safety Data Sheet SODIUM TUNGSTATE Dihydrate

SDS no. YNU7EDST • Version 1.0 • Date of issue: 2023-03-01

SECTION 1: Identification

GHS Product identifier

Product name SODIUM TUNGSTATE Dihydrate

Recommended use of the chemical and restrictions on use

Intermediate in preparation of tungsten compounds, (e.g., phosphotungstate, silicotungstate); catalyst used in the oxidation of maleic acid; fireproofing and waterproofing fabrics and cellulose; reagent for biological products; a dye component; precipitant for alkaloids, blood sugar, uric acid and laboratory reagent.

Supplier's details

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SECTION 2: Hazard identification

General hazard statement

Not classified as dangerous goods according to the Australian Dangerous Goods Code (ADG).

Classified as Hazardous according to the Globally Harmonised System of classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classification of the substance or mixture

GHS classification in accordance with: UN GHS revision 7

- Acute toxicity, oral, Cat. 4

GHS label elements, including precautionary statements

Pictograms



Signal word

Warning

Hazard statement(s)

H302

Harmful if swallowed

Precautionary statement(s)

P264

Wash hands thoroughly after handling.

P270

Do not eat, drink or smoke when using this product.

P301+P312

IF SWALLOWED: Call a POISON CENTER/doctor/physician if you feel unwell,

P330

Rinse mouth.

P501

Dispose of contents/container to an approved waste disposal facility

SECTION 3: Composition/information on ingredients

Mixtures

Molecular weight: 329.86

Components

Component	Concentration
Sodium tungstate Dihydrate (CAS no.: 10213-10-2)	<= 100 % (weight)
CLASSIFICATIONS: Acute toxicity, oral, Cat. 4. HAZARDS: H302 - Harmful if swallowed.	

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice

First Aid Facilities: Maintain eye wash and normal washroom facilities.
If symptoms persist, call a physician. Show this safety data sheet to the doctor in attendance.

If inhaled

Remove to fresh air. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If symptoms persist, call a physician. If not breathing, give artificial respiration.

In case of skin contact

Get medical attention if symptoms occur. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes.

In case of eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

If swallowed

Clean mouth with water and drink afterwards plenty of water. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Consult a physician if necessary.

Personal protective equipment for first-aid responders

No action shall be taken involving any personal risk or without suitable training. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

Indication of immediate medical attention and special treatment needed, if necessary

Treat symptomatically based on judgement of doctor and individual reactions of the patient.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use extinguishing media appropriate for surrounding fire.

Specific hazards arising from the chemical

Toxic and/or irritating fumes or vapours of sodium oxide (Na₂O) and tungsten oxide.

Special protective actions for fire-fighters

Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) operated in positive pressure mode. Fight fire from safe location.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment as required. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes or clothing. Evacuate personnel to safe areas.

Keep people away from and upwind of spill/leak.

Methods and materials for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

SECTION 7: Handling and storage

Precautions for safe handling

Avoid ingestion or inhalation of dust. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Minimize dust generation and accumulation. Keep containers closed when not in use. Use only with adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Wear appropriate protective equipment. Practice good personal hygiene, that is, always wash hands before eating, drinking smoking or using the toilet facilities. Keep away from incompatibles such as oxidizing agents.

Conditions for safe storage, including any incompatibilities

Store in tightly closed containers, in a cool, dry, well-ventilated area away from incompatible materials. Separate from oxidising agents. Protect against physical damage, heat and sources of ignition. Inspect regularly for deficiencies such as damage or leaks.

SECTION 8: Exposure controls/personal protection

Appropriate engineering controls

Use ventilation adequate to keep exposures (airborne levels of dust, fume, vapor, gas, etc.) below recommended exposure limits.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

The use of a face shield, chemical goggles or safety glasses with side shield protection as appropriate. Must comply with Australian Standards AS 1337 and be selected and used in accordance with AS 1336.

Skin protection

Clean impervious clothing should be worn. Clothing for protection against chemicals should comply with AS 3765 Clothing for Protection Against Hazardous Chemicals.

Hand Protection: Normally not required but if in doubt ensure hand protection should comply with AS 2161, Occupational protective gloves - Selection, use and maintenance.

Body protection

Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Respiratory protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable vapor/ mist filter should be used. Refer to relevant regulations for further information concerning respiratory protective requirements. Reference should be made to Australian Standards AS/ NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

SECTION 9: Physical and chemical properties

Basic physical and chemical properties

Physical state	Solid
Appearance	Colourless or white fine, orthorhombic crystals, crystalline powder, or fine, crystalline flakes.
Color	No data available.
Odor	Odourless.
Odor threshold	No data available.
Melting point/freezing point	698 °C (anhydrous).
Boiling point or initial boiling point and boiling range	No data available.
Flammability	No data available.
Lower and upper explosion limit/flammability limit	No data available.
Flash point	No data available.
Explosive properties	No data available.
Auto-ignition temperature	No data available.
Decomposition temperature	> 100 °C (release of crystalline water).
Oxidizing properties	Moderately strong oxidizing agent.
pH	Aqueous solution is slightly alkaline, pH 8-9 (5% aq. sol. 20 °C).
Kinematic viscosity	No data available.
Solubility	Solubility in Water: Soluble (~ 730 g/l (20 °C)). Solubility in Organic Solvents: Slightly soluble in ammonia; insoluble in alcohol (ethanol) and acid.
Partition coefficient n-octanol/water (log value)	No data available.
Vapor pressure	Negligible at 20 °C.
Evaporation rate	No data available.
Density and/or relative density	Specific Gravity: 3.25.
Relative vapor density	No data available.

Particle characteristics

No data available.

Supplemental information regarding physical hazard classes

No data available.

Further safety characteristics (supplemental)

Other Information: Effloresces in dry air.

Bulk Density: 1,770 kg/l.

SECTION 10: Stability and reactivity

Reactivity

None under normal use conditions.

Chemical stability

Stable under normal temperatures, pressures and conditions of handling and storage.

Possibility of hazardous reactions

None under normal use conditions.

Hazardous Polymerization: Will not occur.

Conditions to avoid

Strong heating, dust generation and incompatible materials.

Incompatible materials

Strong oxidizing agents, reducing agents.

Hazardous decomposition products

Toxic and/or irritating fumes of tungsten oxide and sodium oxide (Na₂O).

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Acute Toxicity - Oral: LD50 (rat): 1190 mg/kg (anhydrous substance)

Acute Toxicity - Inhalation: LC50 (rat): > 5.01 mg/l /4h.

ingestion: Harmful if swallowed. May cause irritation of the digestive tract, gastrointestinal symptoms, gastric upset, headache, fatigue, nausea, vomiting, hypermotility and diarrhoea. It may affect behavior/nervous system (somnolence, excitement, muscle weakness, convulsions, ataxia), cardiovascular system, respiration (respiratory depression), and blood. Exposure has caused anorexia, muscle incoordination, weight loss, and death in experimental animals.

Inhalation: May be harmful if inhaled. Inhalation of dust may cause irritation to respiratory system.

The ATE (oral) of the mixture is: 500 mg/kg bw

Skin corrosion/irritation

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May cause skin irritation. Symptoms may include redness and itchiness. May be harmful if absorbed through the skin.

Serious eye damage/irritation

May cause slight eye irritation. Symptoms may include redness, tearing, stinging and blurred vision.

Respiratory or skin sensitization

No data available.

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

Summary of evaluation of the CMR properties

No data available.

Specific target organ toxicity (STOT) - single exposure

No data available.

Specific target organ toxicity (STOT) - repeated exposure

No data available.

Aspiration hazard

No data available.

Additional information

No data available.

SECTION 12: Ecological information

Toxicity

No data available.

Persistence and degradability

Soluble in water Persistence is unlikely based on information available

Bioaccumulative potential

No data available.

Mobility in soil

Will likely be mobile in the environment due to its water solubility.

Results of PBT and vPvB assessment

No data available.

Endocrine disrupting properties

No data available.

Other adverse effects

No data available.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Waste material must be disposed of in accordance with the national and local regulations. Leave chemicals in original containers.

Other disposal recommendations

Do not discharge this material into waterways, drains and sewers.

SECTION 14: Transport information

UN Number	None	
UN Proper Shipping Name	None	
14.3	Transport hazard class(es)	None
14.4	Packing group	None
Environmental hazards	None	
Special precautions for user	None	
Transport in bulk according to IMO instruments	None	

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

Australia SUSMP

Poison Schedule: NS

SECTION 16: Other information

Further information/disclaimer

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Standard for the Uniform Scheduling of Medicines and Poisons, Commonwealth of Australia
National Road Transport Commission, 'Australian Code for the Transport of Dangerous Goods by Road and Rail 7th. Ed.'
Safe Work Australia, 'National Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals', July 2020.
Safe Work Australia, 'National Guide for Classifying Hazardous Chemicals', July 2020.

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Safe Work Australia, Workplace Exposure Standards for Airborne Contaminants, December 2019
Safe Work Australia, Hazardous Chemical Information System (HCIS), hcis.safeworkaustralia.gov.au
IATA, Dangerous Goods Regulations (DGR)
IMO, International Maritime Dangerous Goods Code (IMDG)