

Safety Data Sheet

pursuant to Regulation (EC) 1907/2006 (REACH)
REACH reg. no. --

Trade name: **Tungsten-Thorium**
SDS no. SD-WT-02



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1. Identification of the substance and of the company	* Identification of the substance: WT20, WVMT, WVMWT * Use of the substance: products such as for Electrodes for lighting technology, welding technology, electron tubes, plasma melting, -cutting, -spraying *Company: PLANSEE SE, A-6600 Reutte, e-mail: info@plansee.com *Emergency number: phone +43 (5672)600-0
2. Hazards Identification	*Classification: not hazardous material pursuant to Regulation (EC) no. 1272/2008 EC or EC Directive 67/548/EEC *Compact Metal / Alloy with no Risk to Human Health or the Environment. *Radioactive, α-emitter *No immediate hazard by ThO₂ because of the tungsten matrix. Accumulation in the body, e.g. by prolonged exposure through inhalation of WTh-dust, may cause serious damage to health
3. Composition/Information on ingredients	*Summary: tungsten, 1-2 % mass fraction thoriumoxide (specific activity: 3568 Bq/g) EC no. tungsten: 231-143-9 CAS no. tungsten: 7440-33-7, thoriumoxide: 1314-20-1 *Hazardous components: ThO ₂ : radioactive, specific activity: 3568 Bq/g
4. First-aid measures	*Inhalation: supply fresh air *Skin contact: wash dust off thoroughly with soap and water. *Doctor is needed or advisable: consult a physician after prolonged exposure to dust.
5. Fire-fighting measures	*Suitable extinguishing media: The product itself is not flammable. *Adapt extinguishing measures to surroundings. *Special hazard: increased fire hazard during dust formation. *Protective equipment: breathing protection in the presence of dust.
6. Accidental release measures	*Personnel-related precautionary measures: dust should be suction cleaned directly at source. *Environmental protection measures: no particular environmental protection measures are required.
7. Handling and storage	*Handling: Avoid dust formation. Use suction cleaning if unavoidable and when processing at high temperatures (sublimate formation, see item 10). *Storage: no special measures required.
8. Exposure controls/personal protection	*Exposure thresholds: workplace: tungsten 5 mg/m ³ inhalable fraction, mean daily value, *Dust-like emissions: General 5 mg/m ³ *Wastewater emissions: tungsten 5 mg/l *dose limit: 1 mSv/a (for individual inhabitants) *Workplace exposure: install suction cleaning when working with dust and sublimate and use at least one FFP3 respirator. *Environmental exposure: install suction cleaning with filter when working with dust formation. *Do not empty into drains.
9. Physical and chemical properties	*Appearance: solid grey material *Melting point: 3410°C *Density: 19,3 g/cm ³ at 20°C *Solubility: insoluble in water, acids and bases; soluble only in hydrofluoric acid or a base in combination with a strong oxidizing agent.
10. Stability and reactivity	*Conditions to be avoided: high temperatures in air (strong oxidation beginning around 400°C, sublimation of WO ₃ beginning around 850°C). *Substances to be avoided: none
11. Toxicological information	*Radioactive substance, α-emitter, danger of serious damage to health in case of prolonged exposure through inhalation.
12. Ecological information	*Ecotoxicity: No known ecotoxic effects. *Mobility: low mobility due to low solubility. *Persistence and degradability: stable inorganic material. *Bioaccumulation potential: no data available.
13. Disposal considerations	*Dispose WT-residues according to national regulations for radioactive waste.
14. Transport information	*ADR / RID / ADN / IATA (ICAO) / IMDG: UN-No. 2909, class 7 (Radioactive substances, excepted packages—products made of natural thorium).
15. Regulatory information	*Directive 96/29/Euratom *Labelling pursuant to international Dangerous Goods Regulations. *The exposure limits stated under item 8 refer to the Austrian legal provisions *Notice national regulations.
16. Other information	*Above information corresponds to our current state of knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. *Detailed results of the toxicological and ecotoxicological effects are described in the chemical safety report for REACH registration / Tungsten: REACH reg. no. 01-2119488910--30-0000