

<b>1. Identification of substance and manufacturer</b>	<p><b>*Substance name:</b> Ceramic materials: niobium oxides (<math>Nb_2O_5</math>, <math>Nb_2O_{4,98}</math>), tantalum oxides (<math>Ta_2O_5</math>, <math>Ta_2O_{4,9}</math>, <math>Ta_2O_{4,75}</math>), tungsten oxides (<math>WO_3</math>, <math>WO_{2,9}</math>, <math>WO_{2,72}</math>), molybdenum oxides (<math>MoO_2</math>), zirconium oxides (<math>ZrO_2</math>, <math>ZrO_{2-3Y}</math>, <math>ZrO_{2-8Y}</math>, <math>ZrO_{1,75}</math>)</p> <p><b>*Application:</b> sputtering targets <b>*Manufacturer:</b> PLANSEE GmbH, Siebenbürgerstr. 23, D-86983 Lechbruck, Tel.: +49 (8862) 773-0</p>
<b>2. Composition / Data on components</b>	<p><b>*Composition:</b> Oxides of Nb, Ta, W, Mo, Zr and Y</p> <p><b>*Dangerous components:</b> None</p>
<b>3. Hazards identification</b>	<b>*Hazard description:</b> None
<b>4. First aid measures</b>	<p><b>*Inhalation:</b> Supply fresh air</p> <p><b>*Skin contact:</b> Remove dust by washing with water and soap</p>
<b>5. Fire fighting measures</b>	<p><b>*Suitable extinguishing agents:</b> No restrictions</p> <p><b>*Special risks:</b> None *Substances are not combustible</p>
<b>6. Accidental release measures</b>	<p><b>*Person-related safety precautions:</b> Avoid formation of airborne dust *Ensure effective ventilation</p> <p><b>*Environmental protection measures:</b> No special requirements</p>
<b>7. Handling and storage</b>	<p><b>*Handling:</b> Avoid formation of airborne dust <b>*Storage:</b> No special requirements</p>
<b>8. Exposure controls and personal protection</b>	<p><b>*Threshold limit value:</b> 15 mg/m<sup>3</sup> (daily average, inhaleable fraction), *Install exhaustion at workplaces with unavoidable dust <b>*Personal protective equipment:</b> In case of exposure to dust use protective mask P2</p>
<b>9. Physical and chemical properties</b>	<p><b>*Appearance:</b> variegated solids <b>*Melting point:</b> 1500 - 2200 °C</p> <p><b>*Density:</b> 5.6 - 9.2 g/cm<sup>3</sup> at 20 °C</p>
<b>10. Stability and reactivity</b>	*No dangerous reactions known
<b>11. Toxicological information</b>	*No toxic effects known
<b>12. Ecological information</b>	*No ecotoxicological effects known
<b>13. Disposal considerations</b>	*Notice national and regional regulations
<b>14. Transport information</b>	*No dangerous good for transportation
<b>15. Regulations</b>	*No labelling required *Notice national regulations
<b>16. Other information</b>	<p>* This material safety data sheet replaces "CER-02" dated 2004-10-15</p> <p>*This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.</p>