

Safety Data Sheet

pursuant to Regulation (EC) 1907/2006 (REACH)
REACH reg. no. 01-2119472304-43-0000 (molybdenum)

Trade name: **Molybdenum-Rhenium**
SDS no. SD-MR-02



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page 1 of 1

1. Identification of the substance and of the company	*Identification of the substance: Mo5Re, Mo41Re *Use of the substance: products such as for e.g. high temperature thermoelements *Company: PLANSEE SE, A-6600 Reutte, e-mail: environment.management@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.
3. Composition/Information on ingredients	*Summary: molybdenum 59 % mass fraction, rhenium 41 % mass fraction EC no. molybdenum: 231-107-2, rhenium: 231-124-5 CAS no. molybdenum: 7439-98-7, rhenium: 7440-15-5 *Hazardous components: none
4. First-aid measures	*Inhalation: no exposure when used as directed. *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: avoid contamination of agricultural soils (see item 12).
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: molybdenum 10 mg/m ³ inhalable fraction, mean daily value *Dust-like emissions: General 5 mg/m ³ *Wastewater emissions: molybdenum 5 mg/l *Workplace exposure: install suction cleaning when working with dust and sublimate and use at least one FFP2 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: > 2610°C *Density: Mo5Re: 10,7 g/cm ³ at 20°C Mo41Re: 14,6 g/cm ³ at 20°C *Solubility: insoluble in water, acids and bases; soluble only in complex-forming acids (sulphuric or phosphoric) or bases in combination with a strong oxidizing agent.
10. Stability and reactivity	*Conditions to be avoided: high temperatures in air (strong oxidation beginning around 600°C, sublimation of MoO ₃ beginning around 700°C). *Substances to be avoided: none
11. Toxicological information	*No known toxic effects.
12. Ecological information	*Ecotoxicity: "molybdenosis (copper deficiency disease caused by Mo in ruminants) *No other ecotoxicological effects. *Mobility: low mobility due to low solubility. *Persistence and degradability: stable inorganic material *Bioaccumulation potential: no data available.
13. Disposal considerations	*Dispose of residues as metal waste. *Obey national or regional regulations.
14. Transport information	*ADR / RID / ADN / IATA (ICAO) / IMDG: not a dangerous good pursuant to international transport regulations.
15. Regulatory information	*No labeling required. *The exposure thresholds given under item 8 pertain to Austrian legal regulations. *Obey 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 toxicological and ecotoxicological effects are described in the chemical safety report for REACH registration.