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| 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. |

Information about the content

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| Prepared/Updated: | Plansee |
| Released: | Plansee |
| Valid from: | 12-Jul-2022 |

Changes to last version

| Replacement for | Changes to last version |
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| 007 / SD-MR-02 | <ul style="list-style-type: none"> ■ No change in content ■ Numbering Key, Storage Type and Layout changed |