**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

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**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.*

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**3. Composition/Information on ingredients**

*Summary*: molybdenum 59 % mass fraction, rhenium 41 % mass fraction


*Hazardous components*: none

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**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.

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**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.

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**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).

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**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.

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**8. Exposure controls/personal protection**

*Exposure thresholds*: workplace: molybdenum 10 mg/m³ inhalable fraction, mean daily value

*Dust-like emissions*: General 5 mg/m³

*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.*

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**9. Physical and chemical properties**

*Appearance*: solid grey material

*Melting point*: > 2610°C

*Density*: Mo5Re: 10.7 g/cm³ at 20°C Mo41Re: 14.6 g/cm³ 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.

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**10. Stability and reactivity**

*Conditions to be avoided*: high temperatures in air (strong oxidation beginning around 600°C, sublimation of MoO₃ beginning around 700°C).

*Substances to be avoided*: none

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**11. Toxicological information**

*No known toxic effects.*

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**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.

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**13. Disposal considerations**

*Dispose of residues as metal waste. *Obey national or regional regulations.

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**14. Transport information**

*ADR / RID / ADN / IATA (ICAO) / IMDG*: not a dangerous good pursuant to international transport regulations.

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**15. Regulatory information**

*No labeling required. *The exposure thresholds given under item 8 pertain to Austrian legal regulations. *Obey national regulations.

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**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.*