1. Identification of the substance and of the company

- Identification of the substance: Mo, TZM, MHC, ML, MLR, MLS, MY
- Use of the substance: products such as for lighting technology, coating technology, medical technology, electronics, kiln engineering, glass manufacturing
- 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, addition of Ti, Zr, La, Y oxides <1 % mass fraction
- EC no. 231-107-2
- CAS no.: 7439-98-7
- 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: none
- Protective equipment: none

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: 10 mg/m³ inhalable fraction, mean daily value
- Dust-like emissions: General 5 mg/m³
- Wastewater emissions: 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: 10.2 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.

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

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 evidence of bioaccumulation potential.

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.