1. Identification of the substance and of the company

*Identification of the substance: MW50, MW70, MW80
*Use of the substance: products such as for components for zinc production, glass production, coating technology

*Company: PLANSEE Composite Materials GmbH, Siebenbürgenstr. 23, D-86983 Lechbruck, e-mail: environment.management@plansee.com

*Emergency number: phone +49 8862 773-0

2. Hazards Identification

*Classification: not hazardous material pursuant to regulation (EC) no. 1272/2006 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 50-80 % mass fraction, tungsten 20-50 % mass fraction

*EC no. molybdenum: 231-107-2, tungsten: 231-143-9

*CAS no. molybdenum: 7439-98-7, tungsten: 7440-33-7

*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: 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 (sublimation formation, see item 10). *Storage: no special measures required.

8. Exposure controls/personal protection

*Exposure thresholds: workplace: molybdenum 10 mg/m³ inhalable fraction, mean daily value, tungsten 5 mg/m³ inhalable fraction, mean daily value

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

*Wastewater emissions: molybdenum 5 mg/l, tungsten 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: 12.0 to 14.8 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 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.