CHEMICAL SAFETY REPORT

Update 5: Submitted July 2021

(Replaces Update 4: June 2016, Update 3: Nov 2014, Update2: December 2013, Original: 2010)

Substance Name: Slags, ferromolybdenum-manufg., silicothermic
EC Number: 282-217-2
CAS Number: 84144-95-6
Registrant's Identity: Joint CSR submitted by the Lead Registrant (Molymet Belgium) on behalf of all members of the joint submission MOCONJS-FEMOSLAGS. Document prepared by the IMOA REACH Molybdenum Consortium (MoCon)

See also the ***2014 OECD Highly Soluble Molybdenum Salts Mutual Acceptance of Data (MAD) dataset (containing primarily sodium molybdate data used for read-across in many instances in this CSR),*** which is attached in IUCLID Section 13.2. The afore-mentioned MAD status data is:

1) likewise contained in the relevant individual sections within this CSR
2) also downloadable from the OECD website at:

http://webnet.oecd.org/HPV/UI/SIDS_Details.aspx?id=5c88d62f-4401-4cad-b521-521a4bd710f3

Several supporting documents/reports are to be considered together with the CSR. They are referenced in the CSR, and are attached in the technical registration dossier in IUCLID section 13.2:

- MoCon read-across concept/justification for human health hazards
- MoCon read-across concept/justification for environmental hazards
- Speciation of molybdenum compounds in water: UV spectra (in support of the above)
- DNEL derivation report
- Background document – Environmental Effects Assessments (updated July 2021)
- Background document – Environmental Fate properties (updated May 2021)
- Background document – Regional / ambient monitoring data (water, soil, sediment)
- OECD SIDS Initial Assessment Profile (SIAP), containing the dataset with MAD status
- List of assessors (list of professionals that contributed to the registration dossier).

2. MANUFACTURE AND USES

Table 4. Quantities (in tonnes/year)

Year	Tonnages (tonnes per year)
-	For confidentiality reasons the data on manufactured or imported **quantities per registrant are not provided in this joint CSR**, but are instead provided by each individual registrant of this substance in their technical registration dossier (section 3.2 in IUCLID).

2.1. Manufacture

Table 5. Manufacture

	Manufacture
M-1	**Manufacture of ferromolybdenum slags** Further description of manufacturing process: see description in boundary composition Contributing activity/technique for the environment : **- ERC1: Manufacture of the substance** Contributing activity/technique for the workers : **- PROC 3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions** **- PROC 21: Low energy manipulation of substances bound in materials and/or articles** **- PROC 22: Potentially closed processing operations with minerals/metals at elevated temperature. Industrial setting** **- PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles** **- PROC 26: Handling of solid inorganic substances at ambient temperature** **- PROC28: Manual maintenance (cleaning and repair) of machinery** Tonnage of substance for that use: tonnes/year Related assessment: use not assessed

2.2. Identified uses

Table 6. Formulation

	Formulation
F-1	**Formulation of ferromolybdenum slags** Further description of the use: Contributing activity/technique for the environment : **- ERC3: Formulation into solid matrix** Contributing activity/technique for the workers : **- PROC 3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions** **- PROC 4: Chemical production where opportunity for exposure arises** **- PROC 5: Mixing or blending in batch processes** **- PROC 21: Low energy manipulation of substances bound in materials and/or articles** **- PROC 26: Handling of solid inorganic substances at ambient temperature** **- PROC28: Manual maintenance (cleaning and repair) of machinery** **Technical function of the substance:** no technical function Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such

	Related assessment: use not assessed

Table 7. Uses at industrial sites

	Uses at industrial sites
IW-2	**Industrial use of ferromolybdenum slags (granulates/aggregates) in road construction sector** Further description of the use: Contributing activity/technique for the environment : **- ERC5: Use at industrial site leading to inclusion into/onto article** Contributing activity/technique for the workers : **- PROC 3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions** **- PROC 5: Mixing or blending in batch processes** **- PROC 21: Low energy manipulation of substances bound in materials and/or articles** **- PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles** **- PROC 26: Handling of solid inorganic substances at ambient temperature** **- PROC28: Manual maintenance (cleaning and repair) of machinery** **Product Category used:** PC 0: Other: UCN code: K35000 Construction materials, K35500: Road construction materials, K35900: Other construction materials **Sector of end use:** SU 19: Building and construction work **Technical function of the substance:** granulate/aggregate for construction industries Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such; in a mixture Subsequent service life relevant for that use: yes Link to the subsequent service life: Service life of ferromolybdenum slags-containing articles in industrial settings.COPY; Service life of ferromolybdenum slags-containing articles in professional settings.COPY Related assessment: use not assessed
IW-1	**Industrial use of ferromolybdenum slags (granulates/aggregates) in building industry** Further description of the use: Contributing activity/technique for the environment : **- ERC5: Use at industrial site leading to inclusion into/onto article** Contributing activity/technique for the workers : **- PROC 3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions** **- PROC 5: Mixing or blending in batch processes** **- PROC 21: Low energy manipulation of substances bound in materials and/or articles** **- PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles** **- PROC 26: Handling of solid inorganic substances at ambient temperature** **- PROC28: Manual maintenance (cleaning and repair) of machinery** **Product Category used:** PC 0: Other: UCN code K35000: Construction materials (building materials), K35100:Cement/concrete/mortar, K35900: Other construction materials **Sector of end use:** SU 19: Building and construction work **Technical function of the substance:** granulate/aggregate for construction industries Tonnage of substance for that use: tonnes/year Substance supplied to that use: as such; in a mixture Subsequent service life relevant for that use: yes Link to the subsequent service life: Service life of ferromolybdenum slags-containing articles in industrial settings.COPY; Service life of ferromolybdenum slags-containing articles in professional settings.COPY Related assessment: use not assessed

Table 8. Uses by professional workers

	Uses by professional workers
PW-2	**Professional use of ferromolybdenum slags (granulates/aggregates) in road construction sector** Further description of the use: Contributing activity/technique for the environment : **- ERC8f: Widespread use leading to inclusion into/onto article (outdoor)** Contributing activity/technique for the workers : **- PROC 3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions** **- PROC 5: Mixing or blending in batch processes** **- PROC 21: Low energy manipulation of substances bound in materials and/or articles** **- PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles** **- PROC 26: Handling of solid inorganic substances at ambient temperature** **Product Category used:** PC 0: Other: UNC code: K35000: Construction materials, K35500: Road construction materials, K35900: Other construction materials **Sector of end use:** SU 19: Building and construction work **Technical function of the substance:** granulate/aggregate for construction industries Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: yes Link to the subsequent service life: Service life of ferromolybdenum slags-containing articles in professional settings.COPY Related assessment: use not assessed
PW-1	**Professional use of ferromolybdenum slags (granulates/aggregates) in building industry** Further description of the use: Contributing activity/technique for the environment : **- ERC8f: Widespread use leading to inclusion into/onto article (outdoor)** Contributing activity/technique for the workers : **- PROC 3: Manufacture or formulation in the chemical industry in closed batch processes with occasional controlled exposure or processes with equivalent containment conditions** **- PROC 5: Mixing or blending in batch processes** **- PROC 21: Low energy manipulation of substances bound in materials and/or articles** **- PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles** **- PROC 26: Handling of solid inorganic substances at ambient temperature** **Product Category used:** PC 0: Other: UNC code: K35000: Construction materials (building materials), K35100: Cement/concrete/mortar, K35900: Other construction materials **Sector of end use:** SU 19: Building and construction work **Technical function of the substance:** granulate/aggregate for construction industries Tonnage of substance for that use: tonnes/year Subsequent service life relevant for that use: yes Link to the subsequent service life: Service life of ferromolybdenum slags-containing articles in professional settings.COPY Related assessment: use not assessed

Table 9. Article service life

	Article service life
SL-1	**Service life of ferromolybdenum slags-containing articles in industrial settings** Further description of the use: Article used by: workers Substance intended to be released from article: **Article category related to subsequent service life (AC):** AC 0: Other: granulate/aggregate for building industry and road construction Contributing activity/technique for the environment: **- ERC12c: Use of articles at industrial sites with low release** Contributing activity/technique for consumers:

	Contributing activity/technique for the workers: **- PROC 21: Low energy manipulation of substances bound in materials and/or articles** **- PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles** **Technical function of the substance:** granulate/aggregate for construction industries Tonnage of substance for that use: tonnes/year Related assessment: use not assessed
SL-2	**Service life of ferromolybdenum slags-containing articles in professional settings** Further description of the use: Article used by: workers Substance intended to be released from article: **Article category related to subsequent service life (AC):** AC 0: Other: granulate/aggregate for building industry and road construction Contributing activity/technique for the environment: **- ERC10a: Widespread use of articles with low release (outdoor)** Contributing activity/technique for consumers: Contributing activity/technique for the workers: **- PROC 21: Low energy manipulation of substances bound in materials and/or articles** **- PROC 24: High (mechanical) energy work-up of substances bound in materials and/or articles** **Technical function of the substance:** granulate/aggregate for construction industries Tonnage of substance for that use: tonnes/year Related assessment: use not assessed