

IMOA Molybdenum Consortium Substance Portfolio for REACH

Hazard Classification Table - Final

EC Substance Name	Synonyms	Formula	EINECS No.	CAS	Reach Substance Type	SIEF agreed Classification July 2010	Remarks
1 Molybdenum Sulfide (MoS ₂), roasted	Roasted Molybdenite Concentrate, tech oxide, moly oxide technical grade, molybdic oxide	MoO ₃ is the formula of the main component. Complex compound sintered. See Substance Id document on Classification page of MoCon website.	289-178-0	86089-09-0	UVCB	Hazard classification & category code: Carcinogenicity Category 2 Hazard Statement: H351 = suspected of causing cancer via inhalation	Self-classification by industry EU REACH hazard assessment
2 Molybdenum Trioxide	Molybdenum Trioxide (pure)	MoO ₃	215-204-7	1313-27-5	Mono-Constituent Substance	Hazard classification & category code: Carc. 2; Eye Irrit. 2; STOT SE3, Hazard Statements: H351 = suspected of causing cancer via inhalation, H319 = causes serious eye irritation, H335 = may cause respiratory irritation	Existing EU CLP classification, 1st ATP
3 Molybdenum	Molybdenum Metal	Mo	231-107-2	7439-98-7	Mono-Constituent Substance	No classification	Conclusion by industry EU REACH hazard assessment
4 Disodium Molybdate	Sodium Molybdate, SoMo	Na ₂ MoO ₄ Na ₂ MoO ₄ ·2H ₂ O	231-551-7 & 231-551-7	7631-95-0 & 10102-40-6	Mono-Constituent Substance	No classification	Conclusion by industry EU REACH hazard assessment
5 Diammonium Dimolybdate	Ammonium Dimolybdate, ADM	(NH ₄) ₂ Mo ₂ O ₇	248-517-2	27546-07-2	Mono-Constituent Substance	No classification	Conclusion by industry EU REACH hazard assessment
6 Hexaammonium Heptamolybdate	Ammonium Heptamolybdate	(NH ₄) ₆ Mo ₇ O ₂₄ ·XH ₂ O (NH ₄) ₆ Mo ₇ O ₂₄ ·4H ₂ O	234-722-4 & 234-320-9	12027-67-7 & 12054-85-2	Mono-Constituent Substance	No classification	Conclusion by industry EU REACH hazard assessment
7 Tetraammonium Hexamolybdate	Ammonium Octamolybdate	(NH ₄) ₄ Mo ₆ O ₂₆ ·5H ₂ O	235-650-6	12411-64-2	Mono-Constituent Substance	No classification	Conclusion by industry EU REACH hazard assessment
8 Iron, compound with molybdenum (2:3)	Ferromolybdenum, FeMo		304-589-8	94277-04-0	Special Preparation	No classification	Conclusion by industry EU REACH hazard assessments of Mo and Fe
9 Slags, Ferromolybdenum	Ferromolybdenum Slags, FeMo Slags		282-217-2	84144-95-6	UVCB	No classification	Conclusion by industry EU REACH hazard assessment
10 Molybdenum Dioxide	Mo Dioxide	MoO ₂	242-637-9	18868-43-4	Mono-Constituent Substance	No classification	Conclusion by industry EU REACH hazard assessment
11 Calcium Molybdate	CaMo	CaMoO ₄	232-192-9	7789-82-4	Mono-Constituent Substance	No classification	Conclusion by industry EU REACH hazard assessment
12 Diiron Trimolybdenum Dodecaoxide	Iron Molybdate	Fe ₂ Mo ₃ O ₁₂	237-389-3	13769-81-8	Mono-Constituent Substance	No classification	Conclusion by industry EU REACH hazard assessment
13 Molybdenum Sulfide*	chemically-produced MoS ₂	MoS ₂	235-721-1	12612-50-9	Mono-Constituent Substance	No classification	Conclusion by industry EU REACH hazard assessment

Note: For FeMo it is metallic iron and mo metal that require REACH-registration, not FeMo itself.

UVCB = Unknown or Variable Composition, Complex Reaction Products or Biological Materials)

* The chemically-produced molybdenum disulfide listed in the above table is a substance manufactured as a component of catalytic mixtures used by the petro-chemical industry and it requires REACH registration. It is not the molybdenum disulfide that is the naturally-occurring, non-chemically modified ore and concentrate produced by the mining industry that is exempt from REACH-registration, as per Annex V of the REACH Regulation (page 5, point 7).