

Boundary Composition in Lead Registrant Dossier

Substance: Slags, ferromolybdenum-manufg., silicothermic (ferromolybdenum slags)

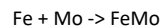
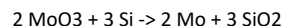
EC Number 282-217-2

Type of substance: UVCB

Name of boundary composition: "Boundary composition: Slags, ferromolybdenum-manufg., silicothermic"

State / form: solid: particulate/powder

Description of composition: Ferro-molybdenum slags are produced during the production of ferro-molybdenum (FeMo). Molybdenum sulfide (MoS₂), roasted, CAS-number 86089-09-0 (also called Roasted Molybdenite Concentrate, RMC) is converted into metallic molybdenum and alloyed with iron to manufacture ferromolybdenum by the following silicothermic reduction reaction:



Degree of purity 100 % (w/w)

typical	min	max
% (w/w)	% (w/w)	% (w/w)

Constituents

silicon dioxide (amorphous)
tridymite (SiO₂)
quartz (SiO₂)
cristobalite (SiO₂)

oxygen compound / oxygen equivalent

	ca.	>=	<=	Selected Substance References	
				EC number	CAS number
silicon dioxide (amorphous)	28.3	>= 21.6	<= 47.8	231-545-4	7631-86-9
tridymite (SiO ₂)	0.5	>= 0.3	<= 0.7	239-487-1	15468-32-3
quartz (SiO ₂)	1.9	>= 0.9	<= 4.2	238-878-4	14808-60-7
cristobalite (SiO ₂)	40.1	>= 21.3	<= 45.7	238-455-4	14464-46-1
oxygen compound / oxygen equivalent	11.4	>= 11.1	11.9	-	-

Impurities Relevant for C&L

Remarks

This reference substance for this constituent has been set up by the registrant of FeMo slags ("Slags, Ferromolybdenum-manufg, silicothermic", EC No. 282-217-2) to describe various oxygen compounds contained in this UVCB. Oxygen is contained in FeMo Slags in the form of various "substances", such as metal oxides or others. Because of the nature of the slags, the exact chemical identity of oxygen compounds is variable and can hardly be verified analytically. Therefore, this "group entry" for O-compounds has been set up. The typical concentration and concentration range are expressed as concentrations of the element oxygen.

calcium compound / calcium equivalent

ca. 5.5 >= 0 <= 9

iron compounds / iron equivalent

ca. 5 >= 1 <= 25

aluminium compounds / aluminium equivalent

ca. 5 >= 1 <= 7.5

magnesium compounds / magnesium equivalent

ca. 2 >= 1 <= 7.5

molybdenum compounds / molybdenum equivalent

ca. 0.4 >= 0 <= 2

This reference substance for this constituent has been set up by the registrant of FeMo slags ("Slags, Ferromolybdenum-manufg, silicothermic", EC No. 282-217-2) to describe various calcium compounds contained in this UVCB. Calcium is contained in FeMo Slags in the form of various "substances", such as oxides, silicates or others. Because of the nature of the slags, the exact chemical identity of calcium compounds is variable and can hardly be verified analytically. Therefore, this "group entry" for Ca-compounds has been set up. The typical concentration and concentration range are expressed as concentrations of the element calcium. The concentration range of the SIEF is >=0,1% - <=9,0% (w/w).

This reference substance for this constituent has been set up by the registrant of FeMo slags ("Slags, Ferromolybdenum-manufg, silicothermic", EC No. 282-217-2) to describe various iron compounds contained in this UVCB. Iron is contained in FeMo Slags in the form of various "substances", such as oxides, silicates or others. Because of the nature of the slags, the exact chemical identity of iron compounds is variable and can hardly be verified analytically. Therefore, this "group entry" for Fe-compounds has been set up. The typical concentration and concentration range are expressed as concentrations of the element iron. The concentration range of the SIEF is >=1,0% - <=25,0% (w/w).

This reference substance for this constituent has been set up by the registrant of FeMo slags ("Slags, Ferromolybdenum-manufg, silicothermic", EC No. 282-217-2) to describe various aluminium compounds contained in this UVCB. Aluminium is contained in FeMo Slags in the form of various "substances", such as oxides, silicates or others. Because of the nature of the slags, the exact chemical identity of Aluminium compounds is variable and can hardly be verified analytically. Therefore, this "group entry" for Al-compounds has been set up. The typical concentration and concentration range are expressed as concentrations of the element aluminium. The concentration range of the SIEF is >=1,0% - <=7,5% (w/w).

This reference substance for this constituent has been set up by the registrant of FeMo slags ("Slags, Ferromolybdenum-manufg, silicothermic", EC No. 282-217-2) to describe various magnesium compounds contained in this UVCB. Magnesium is contained in FeMo Slags in the form of various "substances", such as oxides, silicates or others. Because of the nature of the slags, the exact chemical identity of magnesium compounds is variable and can hardly be verified analytically. Therefore, this "group entry" for Mg-compounds has been set up. The typical concentration and concentration range are expressed as concentrations of the element magnesium. The concentration range of the SIEF is >=0,1% - <=7,5% (w/w).

This reference substance for this constituent has been set up by the registrant of FeMo slags ("Slags, Ferromolybdenum-manufg, silicothermic", EC No. 282-217-2) to describe various molybdenum compounds contained in this UVCB. Molybdenum is contained in FeMo Slags in the form of various "substances", such as oxides, silicates or others. Because of the nature of the slags, the exact chemical identity of molybdenum compounds is variable and can hardly be verified analytically. Therefore, this "group entry" for Mo-compounds has been set up. The typical concentration and concentration range are expressed as concentrations of the element molybdenum. The concentration range of the SIEF is >=0,0% - <=2,0% (w/w).

Impurities

Not applicable. All substances in a UVCB substance are constituents, not impurities

Additives

Not applicable. All substances in a UVCB substance are constituents, not additives