



Lead REACH
CONSORTIUM

Grade name:	Slags, lead smelting (General Grade)
Substance:	Slags, lead smelting
EC Number:	273-825-9
CAS Number:	69029-84-1
Substance Type:	UVCB
Degree of purity:	100 % (w/w)
Description of Product:	Slags lead smelting are iron silicate based slags that are produced to remove high melting point impurities during the smelting of lead.

Composition:

Constituents	Typical concentration	Concentration range	Remarks
Lead EC no.: 231-100-4	<= 49.57 % (w/w)	>= 0 — <= 81 % (w/w)	Refers to % element. Pb is generally present in the metallic form. Sometimes Pb may also be present in form of compounds such as sulphides (e.g. (Fe,Zn,Cu,Pb)S) and/or in the form of an alloy (e.g. PbZnMo).
Copper EC no.: 231-159-6	<= 1.5 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Cu is generally present in the form of sulphides (e.g. (Fe,Zn,Cu,Pb)S) or in the form of an alloy (e.g. Cu(Sn,Sb)).
Cobalt EC no.: 231-158-0	<= 0.098 % (w/w)	>= 0 — <= 0.1 % (w/w)	Refers to % element. Co is assumed to be present in the oxide form.
Sulfur EC no.: 231-722-6	<= 4 % (w/w)	>= 0 — <= 35 % (w/w)	Refers to % element. S is generally present in the sulphide form (e.g. FeS, (Fe,Zn,Cu,Pb)S) and/or sulphates (e.g. FeSOx).
Arsenic EC no.: 231-148-6	<= 0.38 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. As is generally present in the form of an arsenide (e.g. FeAs).
Zinc EC no.: 231-175-3	<= 14.9 % (w/w)	>= 0 — <= 60 % (w/w)	Refers to % element. Zn is generally present in the form of sulphides (e.g. (Fe,Zn,Cu,Pb)S), oxides (e.g. ZnFe2O4, Fe(Zn)O) and/or in the form of an alloy (e.g. PbZnMo).
Cadmium EC no.: 231-152-8	<= 0.02 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Cd is assumed to be present in the oxide form.
Iron EC no.: 231-096-4	<= 37.5 % (w/w)	>= 0 — <= 60 % (w/w)	Refers to % element. Fe is generally present in the compounds form such as oxides (e.g. FeO, Fe3O4, Fe(Zn)O),

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			sulphides (e.g. FeS, (Fe,Zn,Cu,Pb)S), sulphates (e.g. FeSOx) and/ or silicates (e.g. Fe ₂ SiO ₄) and may also be present in the form of an alloy (e.g. FeCrNi) and/or arsenide (e.g. FeAs).
Nickel EC no.: 231-111-4	<= 0.04 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Ni is generally present in the form of an alloy (e.g. FeCrNi).
Silver EC no.: 231-131-3	<= 0.01 % (w/w)	>= 0 — <= 0.02 % (w/w)	Refers to % element. Ag is assumed to be present in the oxide form.
Bismuth EC no.: 231-177-4	<= 0.1 % (w/w)	>= 0 — <= 5 % (w/w)	Refers to % element. Bi is assumed to be present in the oxide form.
Tin EC no.: 231-141-8	<= 1.5 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Sn is generally present in the form of an alloy (e.g. Cu(Sn,Sb)).
Selenium EC no.: 231-957-4	<= 0.01 % (w/w)	>= 0 — <= 0.1 % (w/w)	Refers to % element. Se is assumed to be present in the oxide form.
Tellurium EC no.: 236-813-4	<= 0.023 % (w/w)	>= 0 — <= 0.1 % (w/w)	Refers to % element. Te is assumed to be present in the oxide form.
Aluminium EC no.: 231-072-3	<= 7.54 % (w/w)	>= 0 — <= 15 % (w/w)	Refers to % element. Al is generally present in the form of compounds such as silicates.
Chromium EC no.: 231-157-5	<= 0.9 % (w/w)	>= 0 — <= 5 % (w/w)	Refers to % element. Cr is generally present in the form of an alloy (e.g. FeCrNi).
Manganese EC no.: 231-105-1	<= 1 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Mg is generally present in the form of compounds such as silicates.
Antimony EC no.: 231-146-5	<= 0.3 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Sb is generally present in the form of alloys (e.g. Cu(Sn,Sb)).
Silicon EC no.: 231-130-8	<= 29.3 % (w/w)	>= 0 — <= 35 % (w/w)	Refers to % element. Si is generally present in the form of silicates (e.g. Fe ₂ SiO ₄).
Calcium EC no.: 231-179-5	<= 24 % (w/w)	>= 0 — <= 25 % (w/w)	Refers to % element. Ca is generally present in the form of silicates (e.g. Ca ₃ Mg(SiO ₄) ₂).
Magnesium EC no.: 231-104-6	<= 3.91 % (w/w)	>= 0 — <= 20 % (w/w)	Refers to % element. Mg is generally present in the form of compounds such as silicates.
Barium EC no.: 231-149-1	<= 1.85 % (w/w)	>= 0 — <= 2 % (w/w)	Refers to % element. Ba is assumed to be present in the oxide form.
Potassium EC no.: 231-119-8	<= 0.24 % (w/w)	>= 0 — <= 20 % (w/w)	Refers to % element. K is assumed to be present in the form of compounds.
Sodium EC no.: 231-132-9	<= 0.71 % (w/w)	>= 0 — <= 20 % (w/w)	Refers to % element. Na is assumed to be present in the

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			form of compounds.
Chlorine EC no.: 231-959-5	<= 0.09 % (w/w)	>= 0 — <= 7 % (w/w)	Refers to % element. Cl is assumed to be present in the form of compounds.
Molybdenum EC no.: 231-107-2	<= 0.02 % (w/w)	>= 0 — <= 0.02 % (w/w)	Refers to % element. Mo is generally present in the form of an alloy (e.g. PbZnMo).

Classification:

Dangerous Substances Directive 67/548/EEC - Not classified as hazardous.

Classification Labelling and Packaging Regulation EC 1272/2008 - Not classified as hazardous.

Industry classification proposals - Industry proposes to classify slags, lead smelting (general grade) to bring it into line with the latest scientific data and knowledge. The proposed classification will be:

DSD

Xn; R20/22: Harmful; Harmful by inhalation and if swallowed.

T; R48/23/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation, and if swallowed.

Carc. Cat. 3; R40: Limited evidence of a carcinogenic effect.

Repr. Cat. 1; R60: May impair fertility.

Repr. Cat. 1; R61: May cause harm to the unborn child.

N; R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

CLP

Acute Tox. 4; H302: Harmful if swallowed.

Acute Tox. 4; H332: Harmful if inhaled.

Repr. 1A; H360FD: May damage fertility. May damage the unborn child.

Carc. 2; H351: Suspected of causing cancer.

STOT Rep. Exp. 1; H372: Causes damage to organs through prolonged or repeated exposure

Aquatic Chronic 3; H412: Very toxic to aquatic life.

Labelling:

Signal word: Danger

Hazard pictograms:

GHS07: exclamation mark



GHS08: health hazard



Hazard statements:

H302	Harmful if swallowed.
H332	Harmful if inhaled.
H360FD	May damage fertility. May damage the unborn child.
H351	Suspected of causing cancer.
H372	Causes damage to central nervous system, blood and kidneys through prolonged or repeated exposure by inhalation or ingestion.
H412	Harmful to aquatic life with long lasting effects.

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