Grade name: Lead alloy, base, Sn, Pb, dross

Substance: Lead alloy, base, Sn, Pb, dross

EC Number: 273-701-4

CAS Number: 69011-60-5

Substance Type: UVCB

Degree of purity: 100 % (w/w)

Description of Product: Lead alloy, base, Sn, Pb dross is formed on the surface of molten metal in the production of lead-tin based alloys (casting solders). Lead alloy, base, Sn, Pb, dross consists of variable amounts of lead, tin, sodium, copper and other metals in either alloy form or as compounds such as oxides and silicates.

Composition:

Constituents	Typical concentration	Concentration range	Remarks
Lead EC no.: 231-100-4	<= 75 % (w/w)	>= 0.5 — <= 90 % (w/w)	Refers to % element. In general Pb is mainly present in the metallic form and may also be present in the form of lead oxides (e.g. PbO) and as inclusion in silicates (e.g. Zn-,Sb-,Pb-bearing sodium silicate).
Copper EC no.: 231-159-6	<= 39.19 % (w/w)	>= 0 — <= 62 % (w/w)	Refers to % element. Cu is generally present in the metallic form and in the form of an alloy (e.g. Cu5Sn).
Sulfur EC no.: 231-722-6	<= 0.6 % (w/w)	>= 0 — <= 20 % (w/w)	Refers to % element. S is assumed to be present in the form of a compound.
Zinc EC no.: 231-175-3	<= 5 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Zn is generally present as an inclusion in silicates (e.g. Zn-,Sn-,Pb-bearing sodium silicate).
Cadmium EC no.: 231-152-8	<= 0.1 % (w/w)	>= 0 — <= 5 % (w/w)	Refers to % element. Cd is assumed to be present in the oxide form.
Iron EC no.: 231-096-4	<= 5.27 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Fe is assumed to be present in the oxide form.
Nickel EC no.: 231-111-4	<= 8.31 % (w/w)	>= 0 — <= 14 % (w/w)	Refers to % element. Ni is assumed to be present in the oxide form.
Silver EC no.: 231-131-3	<= 5 % (w/w)	>= 0 — <= 10 % (w/w)	Refers to % element. Ag is assumed to be present in the oxide form.
Antimony	<= 25 % (w/w)	>= 0 — <= 30 % (w/w)	Refers to % element. Sb is

Constituents	Typical concentration	Concentration range	Remarks
EC no.: 231-146-5			assumed to be present in the oxide form.
Arsenic EC no.: 231-148-6	<= 0.4 % (w/w)	>= 0 — <= 1 % (w/w)	Refers to % element. As is assumed to be present in the oxide form.
Bismuth EC no.: 231-177-4	<= 0.14 % (w/w)	>= 0 — <= 0.5 % (w/w)	Refers to % element. Bi is assumed to be present in the oxide form.
Tin EC no.: 231-141-8	<= 50 % (w/w)	>= 3 — <= 90 % (w/w)	Refers to % element. In general Sn is mainly present in the oxide form (e.g. Na2SnO3) and may also be present in the form of an alloy (e.g. Cu5Sn).
Aluminium EC no.: 231-072-3	<= 0.16 % (w/w)	>= 0 — <= 15 % (w/w)	Refers to % element. Al is assumed to be present in the oxide form.
Silicon EC no.: 231-130-8	<= 15.88 % (w/w)	>= 0 — <= 30 % (w/w)	Refers to % element. Si is present in the silicate form (e.g. Na4SiO4).
Sodium EC no.: 231-132-9	<= 17.2 % (w/w)	>= 0 — <= 20 % (w/w)	Refers to % element. Na is generally present in the silicate form(e.g. Sn-,Pb-,Zn-bearing sodium silicate).
Tellurium EC no.: 236-813-4	<= 0.01 % (w/w)	>= 0 — <= 0.1 % (w/w)	Refers to % element. Te is assumed to be present in the oxide form.

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 lead alloy, base, Sn, Pb, dross to bring it into line with the latest scientific data and knowledge. The proposed classification will be:

DSD
Xn; R22: Harmful if swallowed
T; R48/23/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation, and if swallowed.
Xi; R41: Risk of serious damage to eyes.
R43: May cause sensitisation by skin contact.
Carc. Cat. 1; R49: May cause cancer by inhalation.
Repr. Cat. 1; R60: May impair fertility.
Repr. Cat. 2; 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.
Skin Sens. 1; H317: May cause an allergic skin reaction.
Eye Dam. 1; H318: Causes serious eye damage.

Repr. 1A; H360FD: May damage fertility. May damage the unborn child.
Carc. 1A; H350: May cause cancer.
STOT Rep. Exp. 1; H372: Causes damage to organs through prolonged or repeated exposure.
Aquatic Chronic 3; H412: Harmful to aquatic life with long lasting effects.

Labelling:

Signal word: Danger

Hazard pictograms:
GHS05: corrosion

GHS07: exclamation mark

GHS08: health hazard

Hazard statements:

H302	Harmful if swallowed.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H350	May cause cancer.
H360FD	May damage fertility. May damage the unborn child.
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.