



<b>Grade name:</b>	Wastes, lead battery reprocessing (Lower carcinogenicity potential)
<b>Substance:</b>	Wastes, lead battery reprocessing
<b>EC Number:</b>	305-445-7
<b>CAS Number:</b>	94551-99-2
<b>Substance Type:</b>	UVCB
<b>Degree of purity:</b>	100 % (w/w)
<b>Description of Product:</b>	Wastes, lead battery reprocessing is made by recovering the lead compounds from exhausted lead-acid batteries and converting it into a prepared solid feed suitable for lead smelting. Lead is mainly present as oxides, sulphates and in metallic form.

**Composition:**

Constituents	Typical concentration	Concentration range	Remarks
Lead EC no.: 231-100-4	<= 74 % (w/w)	>= 50 — <= 80% (w/w)	Refers to % element. In general Pb is mainly present in form of oxides (e.g. Pb <sub>2</sub> O <sub>6</sub> , PbO, PbCaO <sub>6</sub> ). Pb may also be present in the sulphate form (e.g. PbSO <sub>4</sub> ) and/or metallic form.
Copper EC no.: 231-159-6	<= 0.03 % (w/w)	>= 0 — <= 0.1 % (w/w)	Refers to % element. Cu is assumed to be present in the sulphate form.
Sulfur EC no.: 231-722-6	<= 6 % (w/w)	>= 3 — <= 10 % (w/w)	Refers to % element. S is generally present in the sulphate form (e.g. PbSO <sub>4</sub> ).
Zinc EC no.: 231-175-3	<= 0.1 % (w/w)	>= 0 — <= 3 % (w/w)	Refers to % element. Zn is assumed to be present in the sulphate form.
Cadmium EC no.: 231-152-8	<= 0.005 % (w/w)	>= 0 — <= 0.005 % (w/w)	Refers to % element. Cd is assumed to be present in the sulphate form.
Iron EC no.: 231-096-4	<= 0.3 % (w/w)	>= 0 — <= 3 % (w/w)	Refers to % element. Fe is assumed to be present in the oxide form.
Nickel EC no.: 231-111-4	<= 0.004 % (w/w)	>= 0 — <= 0.004 % (w/w)	Refers to % element. Ni is assumed to be present in the sulphate form.
Antimony EC no.: 231-146-5	<= 0.2 % (w/w)	>= 0 — <= 5 % (w/w)	Refers to % element. Sb is assumed to be present in the oxide form.
Arsenic EC no.: 231-148-6	<= 0.075 % (w/w)	>= 0 — <= 0.075 % (w/w)	Refers to % element. As is assumed to be present in the oxide form.
Bismuth	<= 0.05 % (w/w)	>= 0 — <= 0.08 % (w/w)	Refers to % element. Bi is

Constituents	Typical concentration	Concentration range	Remarks
EC no.: 231-177-4			assumed to be present in the oxide form.
Tin EC no.: 231-141-8	<= 0.3 % (w/w)	>= 0 — <= 0.4 % (w/w)	Refers to % element. Sn is assumed to be present in the oxide form.
Aluminium EC no.: 231-072-3	<= 0.062 % (w/w)	>= 0 — <= 3 % (w/w)	Refers to % element. Al is assumed to be present in the oxide form.
Manganese EC no.: 231-105-1	<= 0.142 % (w/w)	>= 0 — <= 0.2 % (w/w)	Refers to % element. Mn is assumed to be present in the oxide form.
Silicon EC no.: 231-130-8	<= 1 % (w/w)	>= 0 — <= 3 % (w/w)	Refers to % element. Si is assumed to be present in the silicate form.
Carbon EC no.: 231-153-3	<= 0.3 % (w/w)	>= 0 — <= 1 % (w/w)	Refers to % element. C is assumed to be present in the form of hydrocarbons.
Magnesium EC no.: 231-104-6	<= 0.027 % (w/w)	>= 0 — <= 0.04 % (w/w)	Refers to % element. Mg is assumed to be present in the oxide form.
Calcium EC no.: 231-179-5	<= 1.5 % (w/w)	>= 0 — <= 8 % (w/w)	Refers to % element. Ca is generally present in the oxide form (e.g. PbCaO6).
Sodium EC no.: 231-132-9	<= 0.9 % (w/w)	>= 0 — <= 1 % (w/w)	Refers to % element. Na 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 wastes, lead battery reprocessing (No skin sensitizing potential, harmful to the environment) to bring it into line with the latest scientific data and knowledge. The proposed classification will be:

**DSD**

Xn; R20/22: 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.

Xi: R41: Risk of serious damage to eyes.

R43; May cause sensitisation by skin contact.

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; R50/53: Dangerous for the environment; Very toxic 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.

Skin Sens. 1 H317: May cause an allergic skin reaction.

Eye Irrit. 2; H319: Causes serious eye irritation.

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 1; H410: Very toxic to aquatic life with long lasting effects.

Aquatic Acute 1; H400: Very toxic to aquatic life.

### **Labelling:**

Signal word: Danger

#### Hazard pictograms:

GHS07: exclamation mark



GHS08: health hazard



GHS09: environment



#### Hazard statements:

H302 Harmful if swallowed.

H319 Causes serious eye irritation

H317 May cause an allergic skin reaction

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.

H410 Very toxic to aquatic life with long lasting effects.

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