



Grade name: Lead metal massives (general grade) [particle diameter ≥ 1 mm]
Substance: Lead
EC Number: 231-100-4
CAS Number: 7439-92-1
Substance Type: Mono-constituent substance
Degree of purity: 95.0 % (w/w)

Composition:

Constituent	Typical concentration	Concentration range	Remarks
lead EC no.: 231-100-4	95.0 % (w/w)	$\geq 80.0 - \leq 99.99$ % (w/w)	
Impurity	Typical concentration	Concentration range	Remarks
antimony EC no.: 231-146-5		$\geq 0.0 - \leq 15.0$ % (w/w)	
tin EC no.: 231-141-8		$\geq 0.0 - \leq 15.0$ % (w/w)	
sulfur EC no.: 231-722-6		$\geq 0.0 - \leq 10.0$ % (w/w)	only in elemental form
oxygen EC no.: 231-956-9		$\geq 0.0 - \leq 10.0$ % (w/w)	only in elemental form
copper EC no.: 231-159-6		$\geq 0.0 - \leq 10.0$ % (w/w)	
aluminium EC no.: 231-072-3		$\geq 0.0 - \leq 10.0$ % (w/w)	
zinc EC no.: 231-175-3		$\geq 0.0 - \leq 10.0$ % (w/w)	
iron EC no.: 231-096-4		$\geq 0.0 - \leq 10.0$ % (w/w)	
chromium EC no.: 231-157-5		$\geq 0.0 - \leq 10.0$ % (w/w)	
magnesium EC no.: 231-104-6		$\geq 0.0 - \leq 10.0$ % (w/w)	
Manganese EC no.: 231-105-1		$\geq 0.0 - \leq 10.0$ % (w/w)	
sodium EC no.: 231-132-9		$\geq 0.0 - \leq 10.0$ % (w/w)	
Barium EC no.: 231-149-1		$\geq 0.0 - \leq 10.0$ % (w/w)	
strontium EC no.: 231-133-4		$\geq 0.0 - \leq 10.0$ % (w/w)	
Indium EC no.: 231-180-0		$\geq 0.0 - \leq 10.0$ % (w/w)	
gallium EC no.: 231-163-8		$\geq 0.0 - \leq 10.0$ % (w/w)	
tellurium EC no.: 236-813-4		$\geq 0.0 - \leq 10.0$ % (w/w)	
calcium		$\geq 0.0 - \leq 10.0$ % (w/w)	

Constituent	Typical concentration	Concentration range	Remarks
EC no.: 231-179-5			
silicon EC no.: 231-130-8		≥ 0.0 — ≤ 10.0 % (w/w)	
Potassium EC no.: 231-119-8		≥ 0.0 — ≤ 10.0 % (w/w)	
selenium EC no.: 231-957-4		≥ 0.0 — ≤ 5.0 % (w/w)	
bismuth EC no.: 231-177-4		≥ 0.0 — ≤ 2.0 % (w/w)	
nickel EC no.: 231-111-4		≥ 0.0 — ≤ 1.0 % (w/w)	
Different metal impurities not affecting classification of substance		≥ 0.0 — ≤ 0.25 % (w/w)	Metal impurities in the range <0.25% (w/w): e.g. Pt, Ag, Au; metal impurities in the range <0.1% (w/w): Tl; metal impurities in the range <0.025% (w/w): As, Cd, Hg.
cobalt EC no.: 231-158-0		≥ 0.0 — < 0.01 % (w/w)	

CLASSIFICATION IN ACCORDANCE WITH THE CLASSIFICATION LABELLING AND PACKAGING REGULATION EC (NO) 1272/2008

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

Lact.: H362; May cause harm to breast-fed children.

†STOT RE1; H372: Causes damage to organs through prolonged or repeated exposure.

CLP LABELLING

Signal word: Danger

Hazard pictogram:

GHS08: health hazard



Hazard statements:

H360FD May damage fertility. May damage the unborn child.

H362 May cause harm to breast-fed children.

H372 Causes damage to central nervous system, blood and kidneys through prolonged or repeated exposure.

Notes:

***Industry self-classification explanation**

Lead metal massives (general grade) [particle diameter ≥1mm] is included in Regulation (EC) No 1272/2008 Annex VI Table 3.1 under the entry “lead massive: [particle diameter ≥1mm]” (Index No

†Industry self classification

082-013-00-1), which was introduced by the 9th ATP to CLP. As such, this entry is legally binding and must therefore be cited on both the label** and SDS from the date of application stated in the 9th ATP. However, for endpoints not covered by the Annex VI entry, the manufacturer, importer or downstream user is required to self-classify the substance in accordance with the CLP Regulation.

The lead cation is generally accepted to be the primary mediator of lead toxicity, which is manifested in effects on blood, kidneys, the central nervous system, development, and reproductive function. Therefore, “STOT RE1; H372: Causes damage to organs through prolonged or repeated exposure” is assigned to lead metal massives (general grade) [particle diameter $\geq 1\text{mm}$] due to systemic availability of the lead cation.

Due to differences in relative bioavailability between powder and massive forms, it is recommended to use the generic concentration limit of 10% for STOT-RE1 for lead metal massives (general grade) [particle diameter $\geq 1\text{mm}$].

** A derogation from labelling requirements exists for metals in massive form. Such metals do not require a label according to Annex 1 to Regulation (EC) No 1272/2008 if they do not present a hazard to human health by inhalation, ingestion or contact with skin or to the aquatic environment in the form in which they are placed on the market, although classified as hazardous in accordance with the criteria of that Annex.

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