



# Silver metal classification and labelling

## EPMF recommendation for classification

The **European Precious Metals Federation (EPMF)** is an international trade association representing the interests of the precious metals industry in Europe. The main purpose of the EPMF is to promote and support the interests of the European precious metals industry, including refining, recycling, trading, and fabrication of precious metals such as gold, silver, platinum, and palladium.

### 1. Recommended classification for silver metal in EU (+EEA countries)

**Silver metal (CAS 7440-22-4; EC 231-131-3)** has a harmonised classification and labelling in the European Union (including the European Economic Area ('EEA') countries) under Regulation (EC) No 1272/2008 on the classification, labelling and packaging of substances and mixtures ('CLP Regulation'). This classification entry is implemented via the 22<sup>nd</sup> ATP ('Adaptation to Technical Progress') to CLP, which entered into force on 20 October 2024 and is mandatory as of 1 May 2026, and is applicable to all forms of silver metal.

The EPMF differentiates, for human health and environment, between the three forms of silver metal (i.e. massive, powder and nanoform) to reflect the scientifically demonstrated difference in dissolution and bioavailability, and the consequent hazard between the forms. This translates in the following recommendation:

	<b>Classification Hazard class + Hazard statement</b>	<b>Concentration triggering classification in a <u>mixture</u></b>	<b>Pictogram + signal word</b>
Silver metal – <b>massive</b> <sup>a</sup> Index No 047-004-00-9	Repr. 2; H361f STOT RE 2; H373 (nervous system)	≥ 3.0 % ≥ 10 %	GHS08 Wng
Silver metal – <b>powder</b> <sup>a</sup> Index No 047-005-00-4	Repr. 2; H361f STOT RE 2; H373 (nervous system) Aquatic Acute 1; H400 (M=10) Aquatic Chronic 1; H410 (M=10)	≥ 3.0 % ≥ 10 % ≥ 2.5 % ≥ 2.5 %	GHS08 GHS09 Wng
Silver metal – <b>nano</b> <sup>a</sup> Index No 047-006-00-X	Repr. 1B; H360Df <sup>b</sup> Carc. 2; H351 <sup>c</sup> STOT RE 2; H373 (nervous system, testes <sup>d</sup> ) Aquatic Acute 1; H400 (M=1000) Aquatic Chronic 1; H410 (M=1000)	≥ 0.3 % ≥ 1.0 % ≥ 10 % ≥ 0.025 % ≥ 0.025 %	GHS08 GHS09 Dgr <sup>b</sup>

<sup>a</sup> massive: particle diameter ≥1 mm; powder: particle diameter >100 nm - <1 mm; nano: particle diameter >1nm - ≤100 nm.

<sup>b</sup> additional Repr. 1B (H360D) **self-classification** recommended by EPMF (based on available scientific evidence) next to Repr. 2 (H361f) harmonised classification is reflected as Repr. 1B (H360Df). This classification implies 'Danger' as signal word, rather than 'Warning' as specified in the harmonised classification.

<sup>c</sup> additional **self-classification** recommended by (EPMF based on available scientific evidence).

<sup>d</sup> additional STOT RE 2 (H373; testes) **self-classification** recommended by EPMF (based on available scientific evidence) next to STOT RE 2 (H373; nervous system) harmonized classification.



Under EU REACH Regulation (EC) No 1907/2006, information on the safe use of silver metal is included in Exposure Scenarios. The uses covered under EU REACH and the related exposure scenarios are available at <https://www.epmf.be/substances/silver/silver-identified-uses/>. As specified therein, all uses are demonstrated to be safe under the conditions described. Only the Use of silver cutlery and tableware for cooking or food preparation at high temperature (>70°C) is demonstrated to be unsafe and should be avoided.

Note that for metals in massive form, there might be an exemption for labelling as mentioned in CLP Article 23 and further specified in CLP Annex I section 1.3.4 ('1.3.4.1. *Metals in massive form, alloys, mixtures containing polymers and mixtures containing elastomers do not require a label according to this Annex, 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 this Annex.* 1.3.4.2. *Instead, the supplier shall provide the information to downstream users or distributors by means of the SDS.*'). This exemption might apply to for instance silver bars, but taking benefit of this labelling exemption is at the responsibility of the respective company.

## 2. Recommended classification for silver metal **outside EU (+EEA countries)**

In countries where the CLP Regulation is not implemented and in the absence of other regional mandatory classifications, the EPMF recommends to self-classify silver metal as follows:

	<b>Classification Hazard class + Hazard statement</b>	<b>Concentration triggering classification in a <u>mixture</u></b>	<b>Pictogram + signal word</b>
Silver metal – <b>massive</b> <sup>a</sup>	Not classified	/	/
Silver metal – <b>powder</b> <sup>a</sup>	Aquatic Acute 1; H400 (M=10) Aquatic Chronic 1; H410 (M=10)	≥ 2.5 % ≥ 2.5 %	GHS09 Wng
Silver metal – <b>nano</b> <sup>a</sup>	Repr. 1B; H360D Carc. 2; H351 STOT RE 2; H373 (testes) Aquatic Acute 1; H400 (M=1000) Aquatic Chronic 1; H410 (M=1000)	≥ 0.3 % ≥ 1.0 % ≥ 10 % ≥ 0.025 % ≥ 0.025 %	GHS08 GHS09 Dgr

<sup>a</sup>massive: particle diameter ≥1 mm; powder: particle diameter >100 nm - <1 mm; nano: particle diameter >1nm - ≤100 nm)