

SELF-DECLARED ENVIRONMENTAL CLAIM

(TYPE II ENVIRONMENTAL LABEL)

KGHM Polska Miedź S.A. HMG-S copper cathode



This document contains an environmental footprint declaration based on the results of a life cycle assessment (LCA) of the copper cathode manufactured by KGHM Polska Miedź S.A., drawn up in accordance with ISO 14040 and ISO 14044 and the principles set out in ISO 14025.

General information

Product name	HMG-S copper cathode
Declared unit	1 tonne of HMG-S copper cathode
Manufacturer	KGHM Polska Miedź S.A.
Production plant	KGHM Polska Miedź S.A., Głogów Copper Smelter Branch
Life cycle assessment (LCA)	SimaPro 10.3.0.1 Developer, Ecoinvent v. 3.12
Contractor carrying out the analysis	Institute of Mineral Resources and Energy Management, Polish Academy of Sciences, Kraków
Publication date	30 June 2026
Period covered by the analysis	2024
Verifier	Silk Road Certification Sp. z o.o.
Type of review	Critical review in accordance with ISO 14044

Methodology and scope

Standards/guidelines applied : The assessment was carried out in accordance with ISO 14040 (ISO 14040:2021 Environmental management — Life cycle assessment — Principles and framework) and ISO 14044 (ISO 14044:2021 Environmental management — Life cycle assessment — Requirements and guidelines)

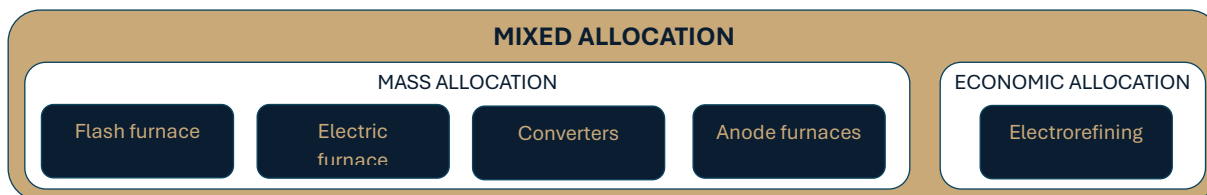
LCIA method: EF 3.1 Method (adapted) V1.05 / EF 3.1 normalisation and weighting set

Functional unit: 1 metric tonne of HMG-S copper cathode

System boundaries: A 'from source to plant gate' analysis of copper cathode production, covering mining, beneficiation, transport, smelting, refining and associated processes.

Excludes packaging, subsequent use and end-of-life.

Allocation procedures:



Product

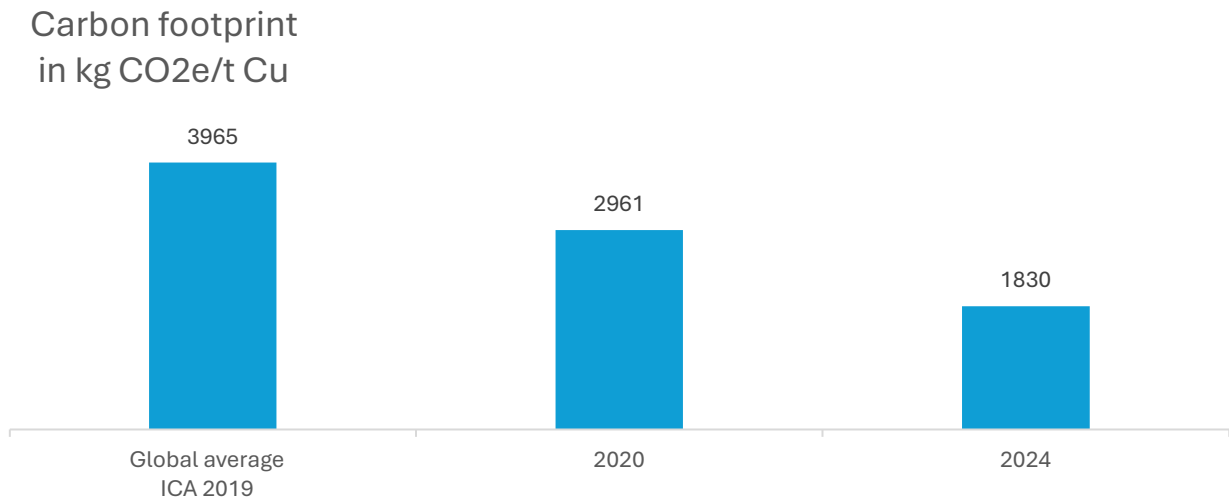
Product description	Copper cathode listed on the London Metal Exchange (LME), the Shanghai Futures Exchange (SHFE) and the Shanghai International Energy Exchange (INE) under the brand name HMG-S, and on the Chicago Mercantile Exchange (CME).
Minimum Cu content	99.99%
Standard	BS EN 1978:1998 (Cu-CATH-1), PN-EN 1978:2000 (Cu-CATH-1)
Dimensions	(length x width x thickness) in mm 910 x 910 ± 10 x 9-20
Material purity	in accordance with BS EN 1978:1998, the total impurity content does not exceed 0.0065%
Feedstock	KGHM's own concentrates and third-party feedstock (concentrates, scrap, blister copper)
Packaging	Bundles of 15-22 cathodes bound together with 1-3 straps

POTENTIAL ENVIRONMENTAL IMPACT 1 METRIC TONNE OF HMG-S CATHODES

CHARACTERISED RESULTS OF IMPACT CATEGORY INDICATORS

IMPACT CATEGORY (EN)	QUANTITY	UNIT
CLIMATE CHANGE	1829.76	kg CO ₂ eq
ACIDIFICATION (FATE NOT INCLUDED)	7.79	mol H ⁺ eq
EUTROPHICATION, FRESHWATER	0.18	kg P eq
OZONE DEPLETION	0.000056	kg CFC-11 eq
PHOTOCHEMICAL OXIDATION	6.78	kg NMVOC
RESOURCE USE, MINERALS AND METALS	0.12	kg Sb eq
RESOURCE USE, FOSSIL	28,659.95	MJ
WATER USE	1002.85	m ³ deprived

Carbon footprint – improvement and comparison with the global average



Global average ICA 2019 - <https://internationalcopper.org/wp-content/uploads/2023/05/ICA-LCI-GlobalSummary-202305-F.pdf>

Additional environmental information

KGHM Polska Miedź S.A., HM Głogów Branch, holds Integrated Management System certificates confirming compliance with the requirements of the following standards: ISO 9001, ISO 14001, ISO 45001, ISO 50001 and ISO 22301 in relation to the products manufactured and processes carried out. The Głogów Copper Smelter Branch also holds Copper Mark certification. All our certificates are available at: www.kghm.com

Verification

Type of verification	Critical review in accordance with ISO 14040 (2021) and ISO 14044 (2021)
Verifier	Elżbieta Jezieniecka-Baryluk Silk Road Certification Sp. z o.o. 17 Lubieniecka Street 44-102 Gliwice
Date of verification	30 June 2026

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