



HPD UNIQUE IDENTIFIER: 1446127616
CLASSIFICATION: 07 61 00 Sheet Metal Roofing
PRODUCT DESCRIPTION: Copper sheet and strip for building construction, as manufactured by a Copper Development Association member, per ASTM B370-22. ASTM B370-22 establishes the requirements for rolled copper sheet and strip in flat lengths or coils in ounce-weight thicknesses for roofing, flashing, gutters, downspouts, and general sheet metal work in building construction. These materials may be used as finished products or as part of larger products or systems. In the latter case, the materials do not experience any chemical changes; rather, they are physically altered to meet the application requirements. Additional Classifications can be found in Section 5: General Notes.

Section 1: Summary

Basic Method / Product Threshold

CONTENT INVENTORY

Inventory Reporting Format	Threshold Level	Residuals/Impurities Evaluation	<i>For all contents above the threshold, the manufacturer has:</i>
☐ Nested Materials Method	☐ 100 ppm	☒ Completed	Characterized ☒ Yes ☐ No
☒ Basic Method	☐ 1,000 ppm	☐ Partially Completed	<i>Provided weight and role.</i>
Threshold Disclosed Per	☐ Per GHS SDS	☐ Not Completed	Screened ☒ Yes ☐ No
☐ Material	☒ Other	Explanation(s) provided :	<i>Provided screening results using HPDC-approved methods.</i>
☒ Product		☒ Yes ☐ No	Identified ☒ Yes ☐ No
			<i>Provided name and CAS RN or other identifier.</i>

CONTENT IN DESCENDING ORDER OF QUANTITY

Summary of product contents and results from screening individual chemical substances against HPD Priority Hazard Lists and the GreenScreen for Safer Chemicals®. The HPD does not assess whether using or handling this product will expose individuals to its chemical substances or any health risk. Refer to Section 2 for further details.

PRODUCT | MATERIAL OR SUBSTANCE | RESIDUAL OR IMPURITY
GREENSCREEN SCORE | HAZARD TYPE
COPPER SHEET AND STRIP FOR BUILDING CONSTRUCTION PER
ASTM B370-22 | COPPER LT-P1 | MUL | AQU | MAM SILVER BM-1
MUL | REP | MAM | AQU]

Number of Greenscreen BM-4/BM3 contents ... 0
Contents highest-concern GreenScreen score(s) (BM-1, LT-1, LT-P1) ...
LT-P1, BM-1
Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

The formulation of each of the copper alloys was generated from the UNS designation, as found at www.unscopperalloys.org and alloys.copper.org, and duplicated in the 3E Exchange Passport Library. UNS and EN are composition-based systems of commercial materials that do not articulate a reporting threshold but are the best available options to associate individual systems and is supported by major trade associations. The specific material formulation should be obtained directly from the manufacturer of the product chosen. Metal alloys have different intrinsic characteristics than their alloying elements encapsulated therein, including health and environmental hazards. As such, alloys are generally expected to have different hazards than their alloying elements. The content reported in the connected HPDs follow the Best Practices for Metal Trade Associations Creating a Metal Alloy HPD and complies with Option 2 of the Metal Alloys Special Condition.

VOLATILE ORGANIC COMPOUND (VOC) CONTENT

VOC Content data is not applicable for this product category.

CERTIFICATIONS AND COMPLIANCE See Section 3 for additional listings.

VOC emissions: Inherently non-emitting source per LEED®

CONSISTENCY WITH OTHER PROGRAMS

No pre-checks completed or disclosed.

Third Party Verified?	PREPARER: Self-Prepared	SCREENING DATE: 2024-10-17
☒ Yes	VERIFIER: WAP Sustainability Consulting	PUBLISHED DATE: 2024-11-20
☐ No	VERIFICATION #: zPr-5401	EXPIRY DATE: 2027-10-17

This section lists contents in a product based on specific threshold(s) and reports detailed health information including hazards. This HPD uses the inventory method indicated above, which is one of three possible methods:

- Basic Inventory method with Product-level threshold.
- Nested Material Inventory method with Product-level threshold
- Nested Material Inventory method with individual Material-level thresholds

Definitions and requirements for the three inventory methods and requirements for each data field can be found in the HPD Open Standard version 2.3, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-3-standard

COPPER SHEET AND STRIP FOR BUILDING CONSTRUCTION PER ASTM B370-22

PRODUCT THRESHOLD: Other	RESIDUALS AND IMPURITIES EVALUATION COMPLETED: Yes
RESIDUALS AND IMPURITIES NOTES: Per ASTM B370-22, the product may be any copper with a minimum copper content, including silver, of 99.5%. Silver is not intentionally added and may only be present as a residual of the process by which raw material (i.e., copper ore) is refined. However, due to the high value of silver, refining operations prioritize its removal to the highest extent practical.	
OTHER PRODUCT NOTES:	

COPPERID: 7440-50-8

HAZARD DATA SOURCE: Pharos Chemical and Materials Library			HAZARD SCREENING DATE: 2024-10-17 6:13:17	
%: 99.5000 - 100.0000	GreenScreen: LT-P1	RC: Both	NANO: No	SUBSTANCE ROLE: Alloy element
HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS		
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters		
AQU	EU - GHS (H-Statements) Annex 6 Table 3-1	H411 - Toxic to aquatic life with long lasting effects [Hazardous to the aquatic environment (chronic) - Category 2]		
MAM	GHS - Japan	H335 - May cause respiratory irritation [Specific target organ toxicity - Single exposure - Category 3]		
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]		
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION		
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List		
		Precautionary list of substances recommended for avoidance		
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List		
		Antimicrobials		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022		
		Biological and Environmentally Released Materials		
RESTRICTED LIST	Cradle to Cradle Products Innovation Institute (C2CPII)	C2C Certified v4.0 Product Standard Restricted Substances List (RSL) - Effective July 1, 2022		
		Children's Products		

SUBSTANCE NOTES: Per ASTM B370, the product may be any copper with a minimum copper content, including silver, of 99.5%. Silver is not intentionally added and may only be present as a residual of the process by which raw material (i.e., copper ore) is refined. However, due to the high value of silver, refining operations prioritize its removal to the highest extent practical.

Pre Consumer Recycled Content Products: Recyclable copper materials generated during production which is recycled within the plant where it originates, or bought back from customers or scrap dealers (i.e., punchings from stamping operations, clippings, gates/risers from castings)

Post Consumer Recycled Content Products: Scrap copper wires, cables, tubes, busbar, and strip, plate, and sheet (e.g., roofing, cladding, gutters, flashing) products

SILVER

ID: 7440-22-4

HAZARD DATA SOURCE: Pharos Chemical and Materials Library

HAZARD SCREENING DATE: 2024-10-17 6:13:17

%: 0.0000 - 0.5000

GreenScreen: BM-1

RC: None

NANO: No

SUBSTANCE ROLE: Impurity/Residual

HAZARD TYPE	LIST NAME AND SOURCE	WARNINGS
MUL	German FEA - Substances Hazardous to Waters	Class 2 - Hazard to Waters
REP	GHS - Japan	H360 - May damage fertility or the unborn child [Toxic to reproduction - Category 1B]
MAM	GHS - Japan	H372 - Causes damage to organs through prolonged or repeated exposure [Specific target organs/systemic toxicity following repeated exposure - Category 1]
MAM	GHS - Japan	H370 - Causes damage to organs [Specific target organs/systemic toxicity following single exposure - Category 1]
AQU	GHS - New Zealand	Hazardous to the aquatic environment - acute category 1
AQU	GHS - New Zealand	Hazardous to the aquatic environment - chronic category 1
ADDITIONAL LISTINGS	LIST NAME AND SOURCE	NOTIFICATION
RESTRICTED LIST	Perkins+Will (P+W)	P&W - Precautionary List Precautionary list of substances recommended for avoidance
RESTRICTED LIST	Green Science Policy Institute (GSPI)	GSPI - Six Classes Precautionary List Antimicrobials

SUBSTANCE NOTES: Per ASTM B370, the product may be any copper with a minimum copper content, including silver, of 99.5%. Silver is not intentionally added and may only be present as a residual of the process by which raw material (i.e., copper ore) is refined. However, due to the high value of silver, refining operations prioritize its removal to the highest extent practical.

The GreenScreen Assessment was performed by NSF International on 1/10/2013, revised on 2/19/2015, and can be found at <https://www.pharosproject.net/uploads/files/gs/66b94fbbd794b5e37bdeec8d321a3ec47cb6c44b.pdf>.

Section 3: Certifications and Compliance

This section lists applicable certification and standards compliance information for VOC emissions and VOC content. Other types of health or environmental performance testing or certifications completed for the product may be provided.

VOC EMISSIONS	Inherently non-emitting source per LEED®	
CERTIFYING PARTY: Self-declared	ISSUE DATE: 2021-12-13 00:00:00	CERTIFIER OR LAB: Self-Declared
APPLICABLE FACILITIES: All	EXPIRY DATE:	
CERTIFICATE URL:		
CERTIFICATION AND COMPLIANCE NOTES:		

Section 4: Accessories

This section lists related products or materials that the manufacturer requires or recommends for installation (such as adhesives or fasteners), maintenance, cleaning, or operations. For information relating to the contents of these related products, refer to their applicable Health Product Declarations, if available.

No accessories are required for this product.

Section 5: General Notes

Substance ranges within the HPD are due to the allowances in the ASTM B370-22 standard. This HPD is meant to provide likely formulations of copper products found within the ASTM standard. Manufacturers should be contacted to obtain a true disclosure for the product in question.

A list of Copper Development Association members can be found at <https://www.copper.org/about/cda-members.html>.

Please see https://www.copper.org/applications/architecture/arch_dhb/ for more information available in the Copper in Architecture - Design Handbook, a comprehensive resource presenting as much information about copper's properties, existing technology, and application to the educational design and construction field as presently exists. The handbook is part of a multi-faceted program geared to the student, architect, or contractor involved in the design or installation of copper, brass, or bronze as an architectural element.

Related Construction Specifications Institute MasterFormat® designations include the following. These are provided as a general guideline; other sections may apply:

- 07 31 16 Metal Shingles
- 07 41 13 Metal Roof Panels
- 07 42 13 Metal Wall Panels
- 07 46 00 Siding
- 07 61 00 Sheet Metal Roofing
- 07 61 13 Standing Seam Sheet Metal Roofing
- 07 61 16 Batten Seam Sheet Metal Roofing
- 07 61 19 Flat Seam Sheet Metal Roofing
- 07 62 00 Sheet Metal Flashing and Trim
- 07 62 20 Sheet Metal Gutters and Downspouts
- 07 63 00 Sheet Metal Roofing Specialties
- 07 64 00 Sheet Metal Wall Cladding
- 07 64 13 Standing Seam Sheet Metal Wall Cladding
- 07 64 16 Batten Seam Sheet Metal Wall Cladding
- 07 64 19 Flat Seam Sheet Metal Wall Cladding
- 07 70 00 Roof and Wall Specialties and Accessories
- 07 71 23 Manufactured Gutters and Downspouts
- 07 95 13 Expansion Joint Cover Assemblies

MANUFACTURER INFORMATION

MANUFACTURER: **Copper Development Association**
ADDRESS: **1660 International Drive**
Suite 600
McLean, VA 22102
COUNTRY: **USA**

WEBSITE: **copper.org**
CONTACT NAME: **Erin Smith**
TITLE: **Deputy Director, EHS & Recycling**
PHONE: **212-251-7247**
EMAIL: **erin.smith@copperalliance.us**

The listed contact is responsible for the validity of this HPD and attests that it is accurate and complete to the best of his or her knowledge.

KEY

Hazard Types

AQU Aquatic toxicity	LAN Land toxicity	PHY Physical hazard (flammable or reactive)
CAN Cancer	MAM Mammalian/systemic/organ toxicity	REP Reproductive
DEV Developmental toxicity	MUL Multiple	RES Respiratory sensitization
END Endocrine activity	NEU Neurotoxicity	SKI Skin sensitization/irritation/corrosivity
EYE Eye irritation/corrosivity	NF Not found on Priority Hazard Lists	UNK Unknown
GEN Gene mutation	OZO Ozone depletion	
GLO Global warming	PBT Persistent, bioaccumulative, and toxic	

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)	LT-P1 List Translator Possible 1 (Possible Benchmark-1)
BM-3 Benchmark 3 (use but still opportunity for improvement)	LT-1 List Translator 1 (Likely Benchmark-1)
BM-2 Benchmark 2 (use but search for safer substitutes)	LT-UNK List Translator Benchmark Unknown
BM-1 Benchmark 1 (avoid - chemical of high concern)	NoGS No GreenScreen.
BM-U Benchmark Unspecified (due to insufficient data)	

GreenScreen Benchmark scores sometimes also carry subscripts, which provide more context for how the score was determined. These are DG (data gap), TP (transformation product), and CoHC (chemical of high concern). For more information, see 2.2.2.4 GreenScreen® for Safer Chemicals, www.greenscreenchemicals.org, and Best Practices for Hazard Screening on the HPDC website (hpd-collaborative.org).

Recycled Types

PreC Pre-consumer recycled content
PostC Post-consumer recycled content
UNK Inclusion of recycled content is unknown
None Does not include recycled content

Other Terms:

GHS SDS Globally Harmonized System of Classification and Labeling of Chemicals Safety Data Sheet

Inventory Methods:

Nested Method / Material Threshold Substances listed within each material per threshold indicated per material
Nested Method / Product Threshold Substances listed within each material per threshold indicated per product
Basic Method / Product Threshold Substances listed individually per threshold indicated per product

Nano Composed of nano scale particles or nanotechnology
Third Party Verified Verification by independent certifier approved by HPDC
Preparer Third party preparer, if not self-prepared by manufacturer
Applicable facilities Manufacturing sites to which testing applies

The Health Product Declaration (HPD) Open Standard provides for the disclosure of product contents and potential associated human and environmental health hazards. Hazard associations are based on the HPD Priority Hazard Lists, the GreenScreen List Translator™, and when available, full GreenScreen® assessments. The HPD Open Standard v2.1 is not:

- a method for the assessment of exposure or risk associated with product handling or use,*
- a method for assessing potential health impacts of: (i) substances used or created during the manufacturing process or (ii) substances created after the product is delivered for end use.*

Information about life cycle, exposure and/or risk assessments performed on the product may be reported by the manufacturer in appropriate Notes sections, and/or, where applicable, in the Certifications section.

The HPD Open Standard was created and is supported by the Health Product Declaration Collaborative (the HPD Collaborative), a customer-led organization composed of stakeholders throughout the building industry that is committed to the continuous improvement of building products through transparency, openness, and innovation throughout the product supply chain.

The product manufacturer and any applicable independent verifier are solely responsible for the accuracy of statements and claims made in this HPD and

