Copper Sheet and Strip for Building Construction per ASTM B370 by Copper Development Association

Health Product Declaration v2.2

created via: HPDC Online Builder

HPD UNIQUE IDENTIFIER: 28651
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. ASTM B370 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
- ○ Nested Materials Method
- ◉ Basic Method

Threshold Disclosed Per
- ○ Material
- ◉ Product

Threshold Level
- ○ 100 ppm
- ○ 1,000 ppm
- ○ Per GHS SDS
- ◉ Other

Residuals/Impurities
- ◉ Considered
- ○ Partially Considered
- ○ Not Considered

Explanation(s) provided for Residuals/Impurities?
- ◉ Yes ○ No

All Substances Above the Threshold Indicated Are:

Characterized ○ Yes Ex/SC ◉ Yes ○ No

% weight and role provided for all substances.

Screened ○ Yes Ex/SC ◉ Yes ○ No

All substances screened using Priority Hazard Lists with results disclosed.

Identified ○ Yes Ex/SC ◉ Yes ○ No

All substances disclosed by Name (Specific or Generic) and Identifier.

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.

MATERIAL | SUBSTANCE | *RESIDUAL OR IMPURITY*
GREENSCREEN SCORE | HAZARD TYPE

COPPER SHEET AND STRIP FOR BUILDING CONSTRUCTION PER ASTM B370 [COPPER LT-UNK *SILVER* BM-1 | END | MUL]

Number of Greenscreen BM-4/BM3 contents ... 0

Contents highest concern GreenScreen Benchmark or List translator Score ... BM-1

Nanomaterial ... No

INVENTORY AND SCREENING NOTES:

Special Conditions applied: [MetalAlloy]. The product formulation was created using the ASTM standard to identify acceptable formulation. 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. All GreenScreen BenchMark scores are supplied by the Pharos database.

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?
- ◉ Yes
- ○ No

PREPARER: Self-Prepared
VERIFIER: WAP Sustainability Consulting
VERIFICATION #: zPr-5401

SCREENING DATE: 2021-12-12
PUBLISHED DATE: 2022-06-08
EXPIRY DATE: 2024-12-12

Section 2: Content in Descending Order of Quantity

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 2.2, available on the HPDC website at: www.hpd-collaborative.org/hpd-2-2-standard

COPPER SHEET AND STRIP FOR BUILDING CONSTRUCTION PER ASTM B370

PRODUCT THRESHOLD: Other

RESIDUALS AND IMPURITIES CONSIDERED: Yes

RESIDUALS AND IMPURITIES 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.

OTHER PRODUCT NOTES:

COPPER

ID: 7440-50-8

HAZARD SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-12 20:36:24**

%: **99.5000 - 100.0000** GS: **LT-UNK** RC: **Both** NANO: **No** SUBSTANCE ROLE: **Alloy element**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
None found		No warnings found on HPD Priority Hazard Lists

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 SCREENING METHOD: **Pharos Chemical and Materials Library** HAZARD SCREENING DATE: **2021-12-12 20:36:24**

%: **Impurity/Residual** GS: **BM-1** RC: **None** NANO: **No** SUBSTANCE ROLE: **Impurity/Residual**

HAZARD TYPE	AGENCY AND LIST TITLES	WARNINGS
END	TEDX - Potential Endocrine Disruptors	Potential Endocrine Disruptor
MUL	German FEA - Substances Hazardous to Waters	Class 3 - Severe Hazard to Waters

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
APPLICABLE FACILITIES: All
CERTIFICATE URL:

ISSUE DATE: 2021-12-13 EXPIRY DATE: CERTIFIER OR LAB: Self-Declared

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 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 who is 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; others 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

Section 6: References

MANUFACTURER INFORMATION

MANUFACTURER: **Copper Development Association**
ADDRESS: **7918 Jones Branch Dr. #300**
McLean VA 22102, USA
WEBSITE: **copper.org**

CONTACT NAME: **Erin Smith**
TITLE: **Project Manager, Material Stewardship (US)**
PHONE: **212-251-7247**
EMAIL: **sustainability@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
CAN Cancer
DEV Developmental toxicity
END Endocrine activity
EYE Eye irritation/corrosivity
GEN Gene mutation
GLO Global warming
LAN Land toxicity
MAM Mammalian/systemic/organ toxicity
MUL Multiple
NEU Neurotoxicity
NF Not found on Priority Hazard Lists
OZO Ozone depletion
PBT Persistent, bioaccumulative, and toxic
PHY Physical hazard (flammable or reactive)
REP Reproductive
RES Respiratory sensitization
SKI Skin sensitization/irritation/corrosivity
UNK Unknown

GreenScreen (GS)

BM-4 Benchmark 4 (prefer-safer chemical)
BM-3 Benchmark 3 (use but still opportunity for improvement)
BM-2 Benchmark 2 (use but search for safer substitutes)
BM-1 Benchmark 1 (avoid - chemical of high concern)
BM-U Benchmark Unspecified (due to insufficient data)
LT-P1 List Translator Possible 1 (Possible Benchmark-1)
LT-1 List Translator 1 (Likely Benchmark-1)
LT-UNK List Translator Benchmark Unknown (the chemical is present on at least one GreenScreen Specified List, but the information contained within the list did not result in a clear mapping to a LT-1 or LTP1 score.)
NoGS No GreenScreen.

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 for compliance with the HPD standard noted.