

SAFETY DATA SHEET

SENTINEL® PVC COPPER ART



SECTION 1 IDENTIFICATION

Product Name	SENTINEL® PVC Copper Art
Restrictions	None
Manufacturer	Performance Roof Systems
Address	4821 Chelsea Avenue Kansas City, MO 64130
Phone Number	(800) 727-9872
Emergency Number	(800) 424-9300 (CHEMTREC)

SECTION 2 HAZARDS

GHS Classification	As defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200, the products listed below are considered articles and do not require an SDS. In addition, articles are not included in the scope of the Globally Harmonization System (GHS). As such, the GHS labeling elements are not included on this SDS. All components listed for this product are bound within the product. When handled as intended and under normal conditions of use, there is no evidence that any of the ingredients are released in amounts that pose a significant health risk. Although these products are not subject to the OSHA Standard or GHS labeling elements, DERBIGUM would like to disclose as much health and safety information as possible to ensure that this product is handled and used properly. This SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and be made available for employees and other users of this product. In addition, the recommendations for handling and use of these products should be included in worker training programs.
Precautionary Statements	P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P210 - Keep away from open flames. - NO SMOKING P260 - Do not breathe fume, gas, vapors P264 - Wash hands, forearms and face thoroughly after handling P270 - Do not eat, drink or smoke when using this product P273 - Avoid release into the environment P280 - Wear protective gloves and clothing
Response	P301+P330+P331 - If swallowed: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 - If on skin (or hair), Take off immediately all contaminated clothing. Rinse skin with water/shower P303+P340 - If inhaled, remove person to fresh air and keep comfortable for breathing P305+P351+P338 - If in eyes: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P314 - Get medical advice/attention if you feel unwell P370+P378 - In case of fire: Use carbon dioxide (CO ₂), foam, dry extinguishing powder to extinguish
Storage	P403+P235 - Store in well-ventilated place. Keep cool
Disposal	P501 - Dispose of contents and/or container in accordance with local, regional and national regulations

ABBREVIATION KEY

GHS = Global Harmonized System
OSHA = Occupational Safety & Health

HCS = Hazard Communication Standard

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SECTION 3 COMPOSITION

Chemical Composition

COMPONENT	CAS NUMBER	PERCENT BY WEIGHT
Antimony trioxide	1309-64-4	1 - 5
Copper, powder ¹	7440-50-8	1 - 5
Titanium Dioxide ¹	13463-67-7	1 - 5
Carbon Black ¹	1333-86-4	< 2

Note: The above components and their percentages are provided for health and safety purposes, ONLY. This document should not be construed as a guaranteed analysis of any specific lot or as specifications for the product.

¹ Component is not likely to occur above the limits of exposure considering its incorporated into the mixture and/or provided use.

SECTION 4 FIRST AID MEASURES

Eyes	If foreign matter enters eyes, immediately flush with large amounts of potable water for at least 15 minutes or until irritation subsides. Get medical attention if irritation persists.
Skin	Remove contaminated clothing and wash with soap and water.
Inhalation	Remove affected person from source of exposure. If not breathing, institute cardiopulmonary resuscitation (CPR). If breathing is difficult, give oxygen. Get medical attention.
First-Aid, Ingestion	Consult a physician if unusual reaction is noted. Product is not intended nor is it likely to be ingested or eaten.
Symptoms, Acute & Delayed Immediate Medical Attention	Refer to Section 11 - Toxicological Information All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials

SECTION 5 FIRE FIGHTING MEASURES

Flash Point	Not Available
Hazardous Products of Combustions	Hydrogen Chloride gas, Carbon Monoxide, Carbon Dioxide.
Extinguishing Media	Dry chemical, Carbon Dioxide, water spray or foam.
Protection Gear	Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions	Use personal protective equipment as required during use. Evacuate unnecessary personnel. Avoid breathing dust/fumes/gas/mist/vapors/spray during hot-air welding.
Environmental Precautions	N/A solid sheeting
Method and Materials for Containment & Clean Up	N/A solid sheeting

ABBREVIATION KEY

ASTM = American Society for Testing and Materials (International)

SECTION 7 HANDLING AND STORAGE

Handling	Use this product with adequate ventilation. Avoid breathing dusts or fumes generated from cutting or heating this material. Wash thoroughly after handling. Use personal protective equipment as described in Section 8.
Storage	Store indoors in a cool, dry, well-ventilated area. Do not handle or store near an open flame, heat or other sources of ignition. This product will react with strong oxidizing agents, reducing agents, strong acids and alkali

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational Exposure Limits

COMPONENT	CAS NUMBER	OSHA PEL	ACGIH TLV	NIOSH
Antimony Trioxide	1309-64-4	0.5 mg/m ³ TWA	0.5 mg/m ³ TWA	0.5 mg/m ³ TWA
Copper, powder	7440-50-8	1 mg/m ³ TWA	1 mg/m ³ TWA	1 mg/m ³ TWA
Carbon Black	1333-86-4	3.5 mg/m ³ TWA	3.0 mg/m ³ TWA	3.5 mg/m ³ TWA
Titanium Dioxide	13463-67-7	15 mg/m ³ TWA	10 mg/m ³ TWA	N/A

PERSONAL PROTECTIVE EQUIPMENT

Pictographs



Eyes/Face

Safety glasses with side shields

Follow the national guidelines concerning the use of protective eye wear.

Hand

Protective Gloves

Leather or cotton gloves may be worn to prevent skin contact and irritation.

Skin/Body

Normal work clothing (long sleeved shirts, long pants and smooth bottom work shoes) is recommended.

Inhalation

Use NIOSH or MSHA approved respiratory protective equipment when airborne exposure limits are exceeded.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Appearance	variable in color, depending on the composition
Odor	characteristic odor
Odor Threshold	No data available
pH	No data available
Relative Evaporation Rate	No data available
Melting Point	No data available
Boiling Point	No data available
Flash Point	No data available
Auto-ignition Temperature	350 °C

ABBREVIATION KEY

NIOSH = National Institute for Occupational Safety
OSHA = Occupational Safety & Health Administration
ACGIH = American Conference of Governmental Industrial Hygiene
MSHA = Mine Safety and Health Administration

PEL = Permissible Exposure Level
TLV = Threshold Limit Value
TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Decomposition Temperature	No data available
Specific Gravity (H₂O =1)	1.2 - 1.3
Vapor pressure	No data available
Vapor Density (AIR=1)	No data available
Solubility in Water	Insoluble

SECTION 10 STABILITY AND REACTIVITY

Stability	Stable at room temperature in closed containers under advised storage and handling conditions.
Reactivity	Upon combustion CO and CO ₂ are formed
Conditions to Avoid	Strong oxidizers, no spark or open flame, direct sunlight and high temperatures
Hazardous Decomposition	Carbon monoxide, carbon dioxide, hydrogen sulfide and sulfur dioxide
Hazardous Polymerization	Will not occur

SECTION 11 TOXICOLOGICAL INFORMATION

POTENTIAL HEALTH EFFECTS

Eyes

Acute (Immediate)	Mechanical irritation may occur in contact with particles.
Chronic (Delayed)	No data available

Skin

Acute (Immediate)	May cause irritation to the skin.
Chronic (Delayed)	No data available

Inhalation

Acute (Immediate)	May cause irritation to the respiratory tract.
Chronic (Delayed)	No data available

Ingestion

Acute (Immediate)	Product is not intended nor is it likely to be ingested or eaten.
Chronic (Delayed)	No data available

Component Analysis

COMPONENT	CAS NUMBER	ORAL LD50 (mg/kg)	DERMAL LD50 (mg/kg)	INHALATION LC50 (mg/L)
Antimony trioxide	1309-64-4	>34,600 (rat)	>8,300 (rabbit)	> 5.2 (rat) 4 hr
Carbon Black	1333-86-4	>8,000 (rat)	N/A	N/A
Titanium Dioxide	13463-67-7	>2,000 (rat)	N/A	> 5.09 (rat) 4 hr
Copper, powder	7440-50-8	>472 (rat)	N/A	> 0.73 (rat) 4 hr

ABBREVIATION KEY

LD₅₀ = Lethal dose, 50 percent

LC₅₀ = Lethal concentration, 50 Percent

SECTION 11 TOXICOLOGICAL INFORMATION

Component Carcinogenicity Antimony trioxide (1309-64-4)
IARC: Group 2B - Possible Carcinogen

Titanium dioxide (13463-67-7)
IARC: Group 2B - Possible Carcinogen

Carbon black (1333-86-4)
IARC: Group 2B - Possible Carcinogen

Carcinogenicity According to IARC, No significant exposure to Antimony trioxide, Titanium dioxide and Carbon black should occur because these components are bound in the polymer matrix and dust exposure would not be expected

Mutagenicity Based on available data, the classification criteria are not met.

STOT Single Exposure Based on available data, the classification criteria are not met.

STOT Repeated Exposure Based on available data, the classification criteria are not met.

Eco toxicity

COMPONENT	CAS NUMBER	FISH LC50 (mg/L)	DAPHNA EC50 (mg/L)	ALGAE EC50 (mg/L)
Antimony trioxide	1309-64-4	>14.4 (fathead minnow) 96 Hours	>69 (Water flea) 48 Hours	>36.6 (algae) 72 hours
Carbon Black	1333-86-4	>1,000 (zebra fish) 96 Hours	>5,600 (Water flea) 24 Hours	>10,000 (algae) 72 Hours
Copper, powder	7440-50-8	0.15 (rainbow trout) 96 Hours	.03 (Water flea) 48 Hours	0.0426-0.0535 (algae) 72 Hours

Persistence & Degradability No Data

Soil Absorption/Mobility No Data

Ozone-Depletion Potential This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B)

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal Methods: The transportation, storage, treatment and dispose of this waste must be conducted in accordance with all applicable federal, state and local regulations.

SECTION 14 TRANSPORT INFORMATION

Transportation Regulations This product is not regulated as a hazardous material in transportation.

ABBREVIATION KEY

IARC = International Agency for Research on Cancer
EC50 = Effective concentration, 50 Percent

LC50 = Lethal concentration, 50 Percent
STOT = Specific Target Organ Toxicity

SECTION 15 REGULATORY INFORMATION

TSCA Inventory	Components are listed
DSL Inventory	Components are listed
Sara 302	None
Sara 304	Antimony trioxide (1309-64-4); 1,000 lb
Sara 311/312 Categories	Chronic Health Hazard
Sara 313	Antimony trioxide (1309-64-4), Copper, powder (7440-50-8)
Clean Air Act	This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (40 CFR 61). This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
CA Proposition 65	WARNING: This product can expose you to chemicals including Titanium dioxide, Carbon black and Antimony trioxide which are known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

Right to Know States

COMPONENT	CAS NUMBER	MA	MN	NJ	PA	RI
Antimony Trioxide	1309-64-6	Yes	No	Yes	Yes	Yes
Copper powder	7440-50-8	Yes	Yes	Yes	Yes	Yes
Carbon Black	1333-86-4	Yes	No	Yes	Yes	Yes
Titanium Dioxide	13463-67-7	Yes	No	Yes	Yes	No

SECTION 16 OTHER INFORMATION

Preparation Date	January 2021
Revision Date	January 2022
Summary of Changes	Branding update
Disclaimer	The information and recommendations contained herein are to the best of Performance Roof Systems' knowledge and belief, accurate and reliable as of the date issued. Performance Roof Systems does not warrant or guarantee their accuracy or reliability, and Performance Roof Systems shall not be liable for any loss or damage arising out of the use thereof. The information and recommendations are offered for the users consideration and examination, and it is the user's responsibility to satisfy itself that they are suitable and complete for its particular use. It is also the users responsibility to make certain that it is relying upon the most recent, updated, information and recommendations available from Performance Roof Systems.

ABBREVIATION KEY

TSCA = Toxic Substances Control Act
IARC = International Agency for Research on Cancer

DSL = Domestic Substances List (Canada)