



DRAGO® WRAP VAPOR INTRUSION BARRIER SAFETY DATA SHEET

Revision Date: July 7, 2021 | Date of Issue: June 1, 2017 | Version Number: 4.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Name: Drago Wrap Vapor Intrusion Barrier

Intended Use of the Product

Under-slab and below-grade vapor intrusion and water vapor barrier

Company Name, Address, and Telephone of the Responsible Party

Stego Industries, LLC

216 Avenida Fabricante #101

San Clemente, CA 92672 USA

Main Contact Number: (877) 464-7834

Emergency Telephone Number

Emergency Number: 1 (800) 424-9300 (24 Hrs.) CHEMTREC

SECTION 2: HAZARDS IDENTIFICATION

Classification: This product is not classified as hazardous in accordance with 29 C.F.R. § 1910.1200.

Signal word: None.

Pictogram(s): None.

Hazard statement(s): None.

Precautionary statement(s): None.

Hazards not otherwise classified: Polymer film can burn if exposed to excessive temperatures beyond the normal use of the product.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient	CAS Number	% by WT.
Copper	Proprietary*	<10%*

The selections marked with an '*' are proprietary and considered to be Trade Secrets. This is the reason that they are listed as such, or provided as a range.

SECTION 4: FIRST AID MEASURES

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Inhalation: Not a respirable film. If exposed to fumes from combustion, move subject to fresh air; if breathing is difficult, give oxygen and get medical attention; if victim has stopped breathing, give artificial respiration and get medical attention.

Eye Contact: Not a probable route of exposure. If exposed to fumes from overheating or from combustion, move subject to fresh air. Flush with plenty of water; if irritation continues, get medical attention.

Skin Contact: No treatment necessary. For thermal burns, cool molten materials with water and get medical attention.

Ingestion: Not a probable route of exposure.

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SECTION 5: FIRE-FIGHTING MEASURES

Unusual Hazards: Polymer film can burn if exposed to excessive temperature beyond the normal use of the product.

Extinguishing Agents: Use extinguishing media appropriate for surrounding fire: carbon dioxide, foam, dry chemical, and water fog.

Personal Protective: Equipment unnecessary unless resin is burned, which is not an intended use of the product. If resin is burning, wear self-contained breathing apparatus (pressure-demand MSHAINIOSH approved or equivalent) and full protective gear.

Note: See Section 10 for hazardous combustion and thermal decomposition information.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Protection: None necessary.

Procedures: None necessary.

SECTION 7: HANDLING AND STORAGE

Storage Conditions: Cool, dry storage recommended. Indoor storage recommended.

Avoid storing films in areas containing aromatic hydrocarbons, halogenated compounds, chlorinated compounds, oxidative agents, solvents or other known polyethylene solubilizers, prodegradants, as they may impact the product performance and/or service life.

Handling Procedures: Avoid direct sunlight. Avoiding direct UV exposure of product. Avoid contact with incompatible materials.

Installation Temperature Range: Below 110°F (ambient). Please also see technical and safety data sheets for accessory products installation/application temperature ranges.

In-Service Temperature Range: Below 85°F (soil and slab temperature, beginning 28 days following slab placement). Please also see technical and safety data sheets for accessory products installation/application temperature ranges.

Exposure to Ultraviolet Radiation/Weather Events: The amount of time between when Drago Wrap is installed and when concrete is placed or other complete protection from sunlight and weather events is provided should be minimized while not exceeding 7 days.

Please review the remainder of the SDS and this wrap's technical data sheet for storage and additional information. If any of the conditions cited above pose a problem for the typical installation of Drago Wrap, please contact Stego Industries for additional information and solutions.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Ingredient	OSHA PEL	ACGIH TWA
Copper	0.1 mg/m ³ (Cu fume)	0.2 mg/m ³ (Cu fume)

Respiratory Protection: None required during handling. Local exhaust to remove fumes from heat sealing and hot wire cutting areas of packaging or bag converting for worker comfort.

Eye Protection: None necessary.

Hand Protection: None necessary.

Engineering Controls (Ventilation): Use local exhaust ventilation when routinely heat sealing this product. Recommended ventilation is with a minimum capture velocity of 100 ft/min. (30 m/min.) at the point of vapor evolution. Refer to the current edition of *Industrial Ventilation: A Manual of Recommended Practice* published by the American Conference of Governmental Industrial Hygienists for information on the design, installation, use, and maintenance of exhaust systems.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES *Continued...*

General Physical Form: Solid plastic film.

INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Plastic film
Color:	Copper and Gray
State:	Solid
Odor Characteristics:	None
Odor Threshold:	None
pH:	Not Applicable
Melting Point/Freezing Point:	Not Applicable
Initial Boiling Point and Boiling Point Range:	Not Applicable
Flash Point:	Not Applicable
Evaporation Rate:	Not Applicable
Flammability (solid, gas):	Not Applicable
Upper flammability:	Not Applicable
Lower Flammability:	Not Applicable
Vapor Pressure:	Not Applicable
Vapor Density:	Not Applicable
Relative Density:	Not Applicable
Solubility:	Not Applicable
Partition Coefficient: n-octanol/water:	Not Applicable
Auto ignition-temperature:	Not Applicable
Decomposition temperature:	>325°C (617°F)
Viscosity:	Not Applicable

SECTION 10: STABILITY AND REACTIVITY

Instability: This material is considered stable. Thermal decomposition is dependent on time and temperature.

HAZARDOUS DECOMPOSITION PRODUCTS

Substance	Condition
Hydrocarbons	Combustion by-product
Carbon Monoxide	Combustion by-product
Carbon Dioxide	Combustion by-product
Copper Fume	Combustion by-product

Hazardous Polymerization: Product will not undergo hazardous polymerization. Product does not decompose at ambient temperatures.

Incompatibility: Lead azide and lead stiphante commonly used in high explosive detonators react violently with copper.

Reactivity: Reacts and binds with polar gases such as Hydrogen sulfide (H₂S), Ozone (O₃), Carbonyl sulfide (COS), Sulfur Dioxide (SO₂), Hydrogen chloride (HCl), Formic Acid, Acetic Acid.

Hazardous Decomposition: Under recommended usage conditions, hazardous decomposition products are not expected. Hazardous decomposition products may occur as a result of oxidation, heating, or reaction with another material.

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SECTION 11: TOXICOLOGICAL INFORMATION

This product, when used under reasonable conditions and in accordance with the directions for use, should not present a health hazard. However, use or processing of the product in a manner not in accordance with the product's directions for use may affect the performance of the product and may present potential health and safety hazards.

Acute Data: No Toxicity data are available for this material.

PRIMARY ROUTES OF EXPOSURE

Skin Contact: Only if burned.

Eye Contact: Only if burned.

Respiratory Contact: Only if burned.

ACUTE EFFECTS OF EXPOSURE

Ingestion: Not a probable route of exposure.

Inhalation: No inhalation risk unless product is heated to point of burning, which in normal applications does not occur. Fumes from combustion are unlikely to be produced during heat shrinking. Local ventilation should be used for comfort. Testing data shows copper/polymer particulate count at approximately 0.007mg/m³, which is well below OSHA PEL of 0.1 mg/m³.

Eye Contact: No eye exposure risk during all product usage except during heating if plastic is heated to point of combustion, which does not occur during the intended use of the product. Fumes from combustion, which have a low toxicity, may be produced during hot wire cutting or heat sealing. Fumes are unlikely to be produced during heat shrinking when used as directed.

Skin Contact: Not irritating when used as directed. Hot polymer created during heat shrinking, wire cutting, or heat sealing, may produce thermal burns.

Chronic Effects of Exposure: None known when used as directed.

Carcinogenicity: None known when used as directed.

SECTION 12: ECOLOGICAL INFORMATION

This material is insoluble in water and not expected to present any environmental problems in normal application, however areas containing aromatic hydrocarbons, halogenated compounds, chlorinated compounds, pH extremities, oxidative agents, solvents or other known polyethylene solubilizers, prodegradants, etc. may impact the product performance and/or service life.

SECTION 13: DISPOSAL CONSIDERATIONS

Procedure: Reclaim if feasible. If product can't be reclaimed, no special requirements are necessary; dispose of as ordinary solid waste. Pick up film for good "housekeeping" and to prevent a slipping hazard. Incineration or landfill in compliance with federal, state and local regulations. *Since regulations vary, consult applicable regulations or authorities before disposal.*

SECTION 14: TRANSPORT INFORMATION

US DOT Hazard Class: Not regulated.

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SECTION 15: REGULATORY INFORMATION

Workplace Classification: This product is not considered hazardous under the OSHA Hazard Communication Standard (29 C.F.R. § 1910.1200).

CERCLA Information (40 C.F.R. 302.4): Because of the form in which copper is contained within the resin, releases of this material to air, land, or water are not reportable to the National Response Center under the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA).

Waste Classification: When this product becomes a waste, it is classified as a non-hazardous waste under criteria of the Resource Conservation and Recovery Act (40 C.F.R. 261).

SECTION 16: OTHER INFORMATION

HAZARD RATING

Health: 0 | Flammability: 1 | Reactivity: 0 | Special Hazards: None

Scale: 4 = Extreme | 3 = High | 2 = Moderate | 1 = Slight | 0 = Insignificant

National Fire Protection Association (NFPA) hazard ratings are designed for use by emergency response personnel to address the hazards that are presented by short-term, acute exposure to a material under conditions of fire, spill, or similar emergencies. Hazard ratings are primarily based on the inherent physical and toxic properties of the material, but also include the toxic properties of combustion or decomposition products that are known to be generated in significant quantities.

Rating are based on internal supplier's guidelines, and they are intended for internal use only.

ABBREVIATIONS

ACGIH = American Conference of Governmental Industrial Hygienists

OSHA = Occupational Safety and Health Administration

TLV = Threshold Limit Value

PEL = Permissible Exposure Limit

TWA = Time Weighted Average

STEL = Short-Term Exposure Limit

Disclaimer: The information contained herein only applies to the noted product. To the best of our knowledge, having been obtained through our suppliers or third parties, this information is accurate. We make no warranties, express or implied, concerning this information or the safe use of the noted product, and we disclaim liability from loss, damage, or other from the product's use, handling, or storage. Users are responsible for verifying the fitness/suitable of the product for any purposes/applications and for confirming compliance with any/all relevant codes or regulations.

Please read the Product Statements for all Drago® products by navigating here: stegoindustries.com/legal