

Duro-Tuff®

SECTION 1	PRODUCT AND COMPANY IDENTIFICATION
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Product Name:	Duro-Tuff®
Version:	2
Identifier 1:	Plasticized PVC Film, all colors
Identifier 2:	Sheeting Compound
Chemical Family:	Plastic Laminate, Plastic Sheet
Product Use:	Roof Material
 Company Information:	 Duro-Last®, Inc. 525 W Morley Dr. Saginaw, MI 48601 Phone: (800) 248-0280 Internet Address: www.duro-last.com
 Emergency Phone (24 hours):	 INFOTRAC 1-800-535-5053 (US & Canada) 1-352-323-3500 (International)

SECTION 2	HAZARD(S) IDENTIFICATION
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Hazard Classification:	As defined in the OSHA Hazard Communication Standard, 29 CFR 1910.1200, this product is considered an article and does 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, Duro-Last® 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.
Pictogram(s):	N/A
Signal Word:	N/A
Hazard Statements:	N/A
Precautionary Statements:	
Additional Optional Hazards:	<p>Environmental Hazards</p> <p>Acute Aquatic Toxicity, Category 3</p> <p>Chronic Aquatic Toxicity, Category 3</p> <p>Acute Hazard to the Aquatic Environment, Category 1</p> <p>Long-Term Hazard to the Aquatic Environment, Category 1</p>



SECTION 3

COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients

Chemical Name	CAS Number	Concentration (%)
Ethene, Chloro-homopolymer	9002-86-2	50 – 60%
Titanium Dioxide	13463-67-7	4 – 6%
Antimony Trioxide	1309-64-4	< 3.5%
Calcium Carbonate	471-34-1	<9%
Carbon Black	1333-86-4	<2%

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

SECTION 4

FIRST-AID MEASURES

Inhalation:	If affected: Move to fresh air. Restore breathing. Consult a physician after significant exposure, or feeling unwell.
Skin Contact:	Wash off with soap and plenty of water. If symptoms persist, call a physician.
Eye Contact:	Immediately flush eye(s) with plenty of water. Remove contact lenses. Keep eye(s) wide open while rinsing. If eye irritation persists, consult a specialist.
Ingestion:	Clean mouth with water and drink plenty of water afterwards. Do NOT induce vomiting. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person.
Most Important Symptoms and Effects, Both Acute and Delayed:	Irritant effects.
Protection of First-Aiders:	Move out of dangerous area. Consult a physician. Show this Safety Data Sheet to the doctor in attendance.
Notes to Physician:	Treat symptomatically.

SECTION 5

FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Dry chemical, Carbon Dioxide, water spray or foam.
Hazardous Combustion Products:	Hydrogen Chloride gas, Carbon Monoxide, Carbon Dioxide. Hazardous emissions may occur during processing at elevated temperatures.
Specific Precautionary Methods:	N/A
Special Protective Equipment for Firefighters:	In the event of fire, wear self-contained breathing apparatus, if appropriate. Thermal decomposition may produce toxic fumes of Carbon Monoxide, Carbon Dioxide, and Hydrogen Chloride.

SECTION 6

ACCIDENTAL RELEASE MEASURES

- Handling Precautions:** Use personal protective equipment as required during use.
Deny access to unprotected persons.
Avoid breathing dust/fumes/gas/mist/vapors/spray during hot-air welding.
- Environmental Precautions:** Do not flush into or allow material to enter surface water or sanitary sewer system.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Cleanup:** N/A
- Regulatory Requirements:** Follow applicable OSHA regulations (29 CFR 1940.120).

SECTION 7

HANDLING AND STORAGE

- Handling Precautions:** Do not breathe vapors or spray mist from welding.
Avoid exceeding the given occupational exposure limits (see Section 8).
Do not get in eyes, on skin, or on clothing.
For personal protection, see Section 8.
Persons with a history of skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
Smoking, eating, and drinking should be prohibited in the application area.
- Storage Requirements:** Keep in a well-ventilated place.
Observe label precautions.
Store in accordance with local regulations.

SECTION 8

EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

Component	CAS Number	Basis **	Value	Exposure Limit(s)* / Form of Exposure
Titanium Dioxide	13463-67-7	OSHA	TWA	15 mg/m ³ (Total Dust)
		ACGIH	TLV	10 mg/m ³ (Total Dust)
Ethene, Chloro-homopolymer	9002-86-2	N/A	N/A	N/A
Antimony Trioxide (unbound)	1309-64-4	OSHA	TWA	0.5 mg/m ³
		ACGIH	TLV	0.5 mg/m ³
Calcium Carbonate	471-34-1	OSHA	TWA	15 mg/m ³
Carbon Black	1333-86-4	ACGIH	TWA	3 mg/m ³
		OSHA	TWA	3.5 mg/m ³
		NIOSH	IDLH/TWA	IDLH 1750 mg/m ³ TWA 3.5 mg/m ³

*The above mentioned values are in accordance with the legislation in effect at the date of the release of this Safety Data Sheet.

****Basis**

ACGIH. Threshold Limit Values (TLV)

OSHA P0. Table Z-1, Limit for Air Contaminant (1989 Vacated Values)

OSHA P1. Permissible Exposure Limits (PEL), Table Z-1, Limit for Air Contaminant

OSHA P2. Permissible Exposure Limits (PEL), Table Z-2

OSHA Z3. Table Z-3, Mineral Dust

- Engineering Measures:** This product is combustible. Use adequate ventilation when heat welding this product.
- Personal Protective Equipment:** **Respiratory Protection**
Use a properly fitted NIOSH approved air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary.

The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapor/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hand Protection

Use impervious gloves when appropriate.

Eye Protection

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary.

Skin and Body Protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific workplace.

Hygiene Measures

Avoid contact with skin, eyes, and clothing.

Wash hands before breaks and immediately after handling the product.

Remove respiratory, and skin/eye protection only after vapors have been cleared from the area.

SECTION 9

PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Plasticized PVC Sheeting
Specific Gravity/Density:	1.20 – 1.80
Percent Volatile:	< 2.0
Vapor Pressure:	N/A
Odor:	Slight Characteristic Odor
Solubility:	Insoluble
Boiling Point:	N/A
Evaporation Rate:	N/A
Vapor Density:	N/A

SECTION 10

STABILITY AND REACTIVITY

Reactivity:	No dangerous reaction known under conditions of normal use.
Chemical Stability:	The product is chemically stable. Hazardous decomposition occurs above 400°F.
Possibility of Hazardous Reactions:	Stable under recommended storage conditions.
Conditions to Avoid:	Extreme temperatures can lead to decomposition of product.

SECTION 11

TOXICOLOGICAL INFORMATION

Toxicity

Hazardous Ingredient Name	Acute or Chronic?	Oral LD ₅₀	Dermal LD ₅₀	Dermal LC ₅₀
Titanium Dioxide (Unbound)*	Chronic (Inhalation)	> 10,000 mg/kg (rat)	≥ 10,000 mg/kg (hamster)	NE**
Ethene, Chloro-homopolymer	No	NE**	NE**	NE**
Antimony Trioxide	Chronic	> 20 g/kg (rat)	NE**	NE**
Carbon Black	No	NE**	NE**	NE**
Calcium Carbonate	Acute	NE**	NE**	NE**

**NE = No Evidence

Irritation:	Skin irritation. Eye irritation.
Sensitization:	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

SECTION 12**ECOLOGICAL INFORMATION****Environmental Data**

Components	Species	Test Results
Antimony Trioxide	Danio Rerio	LC50; Dose: > 1,000 mg/L; Exposure time: 96 h
	Daphnia Magna	EC50; Dose: > 1,000 mg/L; Exposure time: 48 h
	Selenastrum Capricornutum	EC50; Dose: 67 mg/L; Exposure time: 72 h

Other Information: This product contains biocide which can be toxic to aquatic life with long lasting effects.

Do not empty into drains; dispose of this material and its container in accordance with state and local regulations. Avoid dispersal of spilled material and runoff, and contact with soil, waterways, drains, and sewers.

SECTION 13**DISPOSAL CONSIDERATIONS**

Disposal Methods: **Waste from Residues**
This product, as supplied, is not regulated as a hazardous waste by the U.S. Environmental Protection Agency (EPA) under Resource Conservation and Recovery Act (RCRA) regulations. Disposal of this product, solutions, and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any federal, state, and local requirements.

SECTION 14**TRANSPORT INFORMATION**

DOT: Not dangerous goods.
IATA: Not dangerous goods.
IMDG: Not dangerous goods.
Non-regulated, not classified as dangerous.

SECTION 15**REGULATORY INFORMATION**

TSCA List: Titanium Dioxide (13463-67-7), Calcium Carbonate (471-34-1) Carbon Black (1333-86-4), and Antimony Trioxide (1309-64-4) are listed on the TSCA Inventory.

CERCLA Reportable Quantity: This material contains Antimony Trioxide (1309-64-4) with a CERCLA RQ of 1,000 lbs.

SARA 304 Reportable Quantity: This material contains the following components with a section 304 EHS RQ:
Antimony Trioxide (1309-64-4): 1,000 lbs.

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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).
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).
California Prop 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 .

SECTION 16

OTHER INFORMATION

Further Information:	This SDS was prepared in accordance with OSHA regulatory standards for Toxic and Hazardous Substances: 29 CFR 1910.1200.
Disclaimer:	To the best of our knowledge, the information contained herein is accurate. However Duro-Last®, Inc. does not assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be handled with care. Although Duro-Last®, Inc. has described herein all of the hazards to which we are currently aware, we cannot guarantee that these are the only hazards which exist.