MATERIAL SAFETY DATA SHEET

TREX® ESCAPES DECKING — MSDS ESC-1

DATE REVISED: 07-13-09

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1. CHEMICAL, PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: **TREX ESCAPES**
DESCRIPTION: **CELLULAR SOLID; RIGID PROFILE**
COLORS: **Acorn**
Pewter
Sahara

SUPPLIER: **TREX COMPANY, INC**
245 CAPITOL LANE
WINCHESTER, VA 22602

PRODUCT AND MSDS INFORMATION: **800-289-8739**
EMERGENCY CONTACT: **800-289-8739**

2. COMPOSITION INFORMATION ON INGREDIENTS:

Component	Color Code	CAS Number	Percentage by Weight	OSHA PEL	ACGIH TLV
Polyvinyl Chloride Resin	A	9002-86-2	<90	N/A	N/A
Acrylic Copolymers	A	N/A	<10	N/A	N/A
Calcium Carbonate	A	1317-65-3	<7	15 mg/m3, total 5 mg/m3, resp.	10 mg/m3, total 3mg/m3, resp.
Glass Fiber	A	65997-17-3	<7	12 mg/m2; 50 mppcf, total dust 5mg/m3; 15 mppcf, resp.	1 f/cm3
Calcium Stearate	A	1592-23-0	<4	N/A	N/A
Paraffin Wax	A	8002-74-2	<3	N/A	2 mg/m3 ceiling as fume
Titanium Dioxide (TiO2)	A	13463-67-7	<12	15 mg/m3, total dust	10 mg/m3, total dust
Organotin (SN) Complex	A	N/A	<2	NA	NA
Brown Pigment (Titanium, Chromium, Antimony)	C, P	68186-90-3	<4	0.5 mg/m3	0.5 mg/m3
Organic Calcium Compound	S	1592-23-0	<2	NA	NA
Chromium Compounds	C	1308-38-9	<2	Cr(III): 0.5 mg/m3	Cr(III): 0.5 mg/m3
Brown Pigment (Cr, Sb, MN) Compound	C, P	Mixture	<4	Sb: 0.5mg/m3 Mn: 5mg/m3	Sb: 0.5 mg/m3 Mn: 0.2 mg/m3
Talc	A	14807-96-6	<10	20 mppcf	2 mg/m3

Notes: 1. All exposure limits are 8-hour TWA's unless otherwise specified.
2. Abbreviations/Acronyms are defined in Section 16.
3. Composition information encompasses the range for this class of compounds.
4. Color Codes: A: All, C: Acorn, S: Sahara, P: Pewter

3. HAZARDS IDENTIFICATION:

General Hazard Statement: This manufactured product is classified as and "Article" as defined under OSHA Hazard Communication criteria, and is thus exempt from the MSDS requirement. Colorants, stabilizers and processing additives are encapsulated in a polymer matrix. The polymer resin is not conducive to dust formation. Product does not release significant amounts of hazardous chemicals under normal end-use conditions. Product is

not a source of vinyl chloride monomer. This document addresses potential processing emissions and decomposition products.

Under certain conditions, (high temperature/combustion conditions) hazardous decomposition products may be emitted. Airborne dust may be generated by physical /mechanical means and certain handling procedures. The major component (PVC) is of low order toxicity. Come components must be viewed as toxic.

Emergency Overview: Processing that generates significant quantities of airborne dust or thermal decomposition products should be performed in well-ventilated areas, and if appropriate, respiratory protection and other PPE should be utilized.

HMIS Designation: Heath: 1 Flammability 0 Reactivity 0 PPE B

WHMIS (Canada) (NPPA 704) Classification:

- **Health:**
  - 0 - (Solid product, ambient conditions) – No health risk
  - 3 – Fire conditions. Acute exposure to thermal decomposition product (Hydrogen Chloride gas) can cause serious temporary or permanent injury.
- **Flammability:**
  - 0 – Will not burn. (May melt and liberate Hydrogen Chloride gas and other thermal decomposition products under fire conditions.)
- **Reactivity:**
  - 1 – Normally stable but can liberate Hydrogen Chloride gas and other thermal decomposition products at elevated temperatures.

Primary Route of Entry: Inhalation of airborne dust or thermal decomposition products.

Acute Effects of Overexposure:

Inhalation: Exposures to high concentrations of airborne dust may result in respiratory irritation and other toxic effects. Thermal decomposition products are corrosive/toxic and are potent eye, nose, throat and respiratory irritants.

Eye: Direct eye contact exposure to high concentrations of airborne dust may cause irritation and conjunctivitis.

Skin: Prolonged exposure to airborne dust may cause irritation or sensitization, possibly leading to dermatitis.

Ingestion: Not an anticipated route of exposure. Harmful if swallowed. Ingestion of dust may cause nausea and/or vomiting. Other serious effects may occur if large amounts of product are swallowed.

Chronic Effects of Overexposure:

Excessive and repeated exposures to airborne dust may cause:
Allergic sensitization/dermatitis
Respiratory irritation, inflammation and damage
Eye inflammation, irritation of mucous membranes

Carcinogenicity:
The carcinogenicity of this product as a whole has not been tested. Extensive long-term usage of PVC resins has exhibited no documented carcinogenic effects. Specific components are categorized in Section 11 – Toxicological Information.

Synergistic Materials:
None known.

Signs and Symptoms of Overexposure:
(Airborne dust) Irritation of skin and eyes; respiratory irritation; dermatitis

Medical Conditions Generally Aggravated by Exposure:
Pre-existing allergies and respiratory disorders may be exacerbated by airborne dust.

4. FIRST AID MEASURES

Inhalation: Extreme dust exposure may block respiratory passages. If overexposure occurs, immediately remove victim from the adverse environment to fresh air and seek medical attention. If breathing has stopped, certified individuals should perform CPR. Keep affected person warm and at rest.

Eye: Treat as an abrasive foreign material. Flush with large amounts of running water for several minutes.

Skin: If dust gets on skin, wash contaminated area with soap and water. If a persistent rash or irritation occurs, seek medical attention. Launder contaminated clothing prior to re-use.

Ingestion: Ingestion of significant quantities is unlikely. Swallowing of large quantities of material may cause nausea. If vomiting occurs, keep head below hips to help prevent aspiration. Seek medical attention immediately.

5. FIRE FIGHTING MEASURES

Flash Point: N/A **Flammable Limits:** N/A
Autoignition Temperature: N/A **Flammability Classification:** N/A
General Fire Hazard: N/A – Product may emit hydrogen chloride and carbon monoxide under combustion conditions.

Extinguishing Method: Water spray, CO2, or dry powder extinguisher

Fire Fighting Equipment: As appropriate for surrounding material and toxic airborne gases. Respiratory protection against hydrogen chloride, carbon dioxide and oxygen deficiency. Positive pressure SCBA and structural firefighter's protective clothing should be used for fighting large fires.

Unusual Fire or Explosion Hazards: Not a significant fire or explosion hazard. Exposure to fire and high temperature will result in thermal decomposition and emission of hydrogen chloride and other toxic gases.

Explosion Data: Sensitivity/Mechanical Impact: N/A Sensitivity/Static Discharge: N/A

Hazardous Combustion Products: Hydrogen chloride, carbon monoxide and other toxic gases may be evolved from fires involving this product.

6. ACCIDENTAL RELEASE MEASURES

Steps to Be Taken In Case Material Is Released: Avoid generation of airborne dust during clean-up. Skin and eye contact, ingestion and inhalation of material should be avoided as much as possible.
Local exhaust or dilution ventilation is required if high concentrations of airborne dust are generated.

Appropriate PPE should be worn during clean-up if excessive airborne dust is generated. Transfer spilled material to appropriate containers for storage, recycle, or disposal. Comply with federal, state and local regulations regarding waste disposal. Recycling of unused material is recommended.

7. HANDLING AND STORAGE

Handling: If airborne dust is generated, take necessary precautions to avoid inhalation of excessive dust, including ventilation and respiratory protection.

Storage: Store in clean, dry, ventilated area away from heat and ignition sources. Avoid exposure to acid, alkali, and water. Avoid temperatures in excess of 120F.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Provide general dilution ventilation and/or local ventilation during processing that generates airborne dust. Avoid excessively high temperatures to avoid decomposition and formation of toxic gases.

Respiratory: Product is non-volatile. Airborne dust may be generated during handling and mechanical processing. Vapor and aerosol emissions may occur at high temperatures. When engineering or administrative controls cannot maintain exposures below permissible limits, use an appropriate NIOSH/MSHA approved respirator. If respiratory protection is required, all appropriate requirements as set forth in 29 CFR 1910.134(1998 Revision) must be met. A competent health and safety professional should be consulted for respirator selection, fit testing and training. Use a NIOSH-approved positive-pressure, air-supplied respirator if exposure levels are unknown, or during any other circumstance where an air-purifying respirator would not be adequate.

Gloves: Suitable for protection against skin contact during handling and processing. Protect hands from prolonged exposure to dust that may be generated during processing.

Eye: Safety glasses or goggles when there is a reasonable possibility of airborne dust.

Other Protective Clothing or Equipment: Adequate footwear (safety shoes if necessary) and clothing that protects skin from prolonged or repeated contact. Change clothing if extensive dust contamination occurs. Launder contaminated clothing prior to re-use.

9. PHYSICAL AND CHEMICAL PROPERTIES

Boiling Point: N/A
Vapor Pressure (mm Hg, @68F: N/A
Vapor Density (air=1): N/A
Melting Point: Softens above 175F
Appearance and Odor: Odorless solid

Specific Gravity (H2o = 1): Less than 1.0
Evaporation Rate: N/A
Solubility in Water: Insoluble
pH: N/A

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions. Decomposes at high temperature (fire conditions) to release toxic hydrogen chloride gas.

Conditions to avoid: Avoid excessive heat. Product may distort or soften and fuse together at temperatures above 175F and will undergo decomposition under fire/combustion conditions.

Incompatible materials: Avoid contact with organic solvents.

Hazardous Decomposition Products: Hazardous decomposition products (hydrogen chloride and other toxic substances) may be emitted at high temperatures/fire conditions.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Polyvinyl Chloride (PVC): Polyvinyl chloride is a solid, rigid resin formed by co-reaction/polymerization of vinyl chloride monomer. PVC is manufactured under conditions that minimize the content of vinyl chloride monomer. Monomer content of PVC is typically less than ten parts per million, and is further reduced during extrusion

processing. Vinyl chloride monomer is a cancer-suspect agent. Manufacture, handling and processing of vinyl chloride are specifically regulated by U.S. Department of Labor, Occupational Safety and Health Administration. Such regulations have been published as 29 CFR 1910.1017. It is important that handlers and processors of PVC resin be familiar with these regulations. None of the information presented in this material safety data sheet should

be construed to contradict or supersede these regulations. It must be recognized that PVC and vinyl chloride are distinctively different materials. Prolonged skin contact with PVC dust may cause dermatitis. Thermal decomposition under fire conditions will release hydrogen chloride, a corrosive, irritating, toxic gas.

Calcium Carbonate: Low-order toxicity by ingestion. Airborne calcium carbonate particles are considered as "nuisance" dust. High airborne dust concentrations may block breathing passages, irritate mucous membranes, and cause eye irritation due to abrasive action. Ingestion of large quantities of calcium carbonate may result in gastric disorders due to release of carbon dioxide gas upon contact with digestive acids.

Glass Fiber: Excessive quantities of airborne glass fiber can result in irritation of the eyes, skin, mucous membranes and respiratory system. Inhalation of excessive glass fibers may cause lung damage. Extensive research has been conducted regarding the health aspects of fibrous glass. Carcinogenicity: IARC has determined that data from animal and human studies is inadequate to classify glass fibers as carcinogenic to humans.

Organotin Complex: Exposure to excessive levels of Organotin compounds can result in skin, eye and respiratory irritation. Chronic inhalation or ingestion of tin compounds may result in damage to the liver, kidneys, urinary tract and central nervous system. Carcinogenicity: ACGIH has designated organic tin compounds as not classable as a human or animal carcinogen due to inadequate data.

Calcium Stearate: Not highly toxic by ingestion, however, swallowing of massive quantities may cause gastric disorder. Inhalation of excessive quantities of airborne calcium stearate dust may result in respiratory irritation, coughing, and breathing difficulty. Chronic/repeated inhalation of grossly excessive quantities may result in progressive pneumonitis. Pre-existing skin disorders, impaired respiratory function and pulmonary disease may be aggravated by exposure to all classes of airborne dust.

Paraffin Wax: Material is considered to be biologically inert and of relatively low toxicity by ingestion. Swallowing of massive quantities may cause gastric disorders and diarrhea. Excessive heating may cause fuming and finely divided airborne particulate. Inhalation of excessive quantities may cause respiratory disorders. High airborne dust concentrations may cause eye irritation.

Antimony: High airborne dust concentrations can cause irritation to the eyes, mucous membranes and respiratory tract. Antimony has been associated with pneumoconiosis and damage to the cardiovascular system. Ingestion in large quantities may cause headache, nausea, diarrhea, stomach cramps, insomnia, and anorexia. IARC has designated Antimony as a possible human carcinogen.

Chromium II, Chromium III: Divalent and trivalent chromium compounds are reported as eye irritants and possible skin sensitizers. High airborne dust concentrations can cause respiratory discomfort and eye irritation due to abrasive action. Ingestion of large quantities may cause gastrointestinal disorders. Carcinogenicity: IARC and ACGIH have designated CRII and CRIII compounds as not classifiable as to carcinogenicity to humans.

Titanium Dioxide: Elemental titanium and titanium dioxide are of low order toxicity by ingestion. Extensive epidemiological studies conducted over many years of industrial exposure have shown slight benign changes in the lungs with no significant toxic effects via inhalation.

Carcinogenicity: ACGIH has designated TiO2 in classification A-2: Not classifiable as a human carcinogen. NIOSH classification CA: Potential occupational carcinogen with no further categorization. OSHA and NTP have not classified TIO2 with regard to carcinogenicity.

In February, 2006, IARC reclassified TIO2 from Class 3: Unclassifiable as to carcinogenicity in humans; to 2-B Possibly carcinogenic to humans. This MSDS is revised accordingly.

The IARC reclassification was based upon animal (rat) studies conducted in 1985 and 1989. This data was derived from animal studies involving extremely high, long duration, airborne respirable TiO2 concentrations which placed

a severe burden upon the lungs of the laboratory animals and overwhelmed the lung clearance mechanism. These animal exposure conditions have no relevance to human occupational exposure. The large volume of historical epidemiological date indicates no correlation between real-world human exposure and this animal exposure data. These animal test results are not confirmed or corroborated by extensive industrial experience.

Titanium dioxide continues to be viewed by OAHA (PEL: 15 mg/m3) and ACGIH (TLV: 10 mg/m3) as a substance of relatively low inhalation toxicity. No changes in the OSHA regulatory exposure standard or the ACGIH consensus guideline have been initiated as of this MSDS update.

Talc: Low-order toxicity by ingestion. Airborne talc particles are considered as "nuisance" dust. High airborne dust concentrations may block breathing passages, irritate mucous membranes, and cause eye irritation due to abrasive actions.

Manganese: NIOSH has associated manganese with loss of strength/asthma, insomnia, mental confusion, dry throat, metal fume fever, coughing, chest tightness, rales, shortness of breath/dyspnea, flu-like fever, low-back pain, vomiting, malaise, kidney damage, fatigue, central nervous system disorders, respiratory system damage and blood disorders.

Acrylic Copolymers: This class of polymers is utilized in acrylic paints and a broad range of plastic compositions. No specific toxic effect has been attributed to acrylic polymers. Airborne acrylic copolymer dust may irritate the eyes and respiratory tract.

12. ECOLOGICAL INFORMATION:

Some constituents may be ecologically toxic. PVC is not readily biodegradable; however, all organic constituents will ultimately decompose under the influence of environmental conditions and microbial action. Metallic constituents will ultimately convert to stable oxides, hydroxides, carbonates, etc., but elemental metals and associated compounds will prevail in the environment indefinitely. Extensive usage of PVC profiles has not resulted in major ecological concerns.

13. DISPOSAL CONSIDERATIONS:

Waste Disposal Method: Waste should be disposed, processed, or recycled in accordance with federal, state and local regulations. Recycling of waste material is recommended. Incineration is not recommended unless provisions are made to contain emissions of hydrogen chloride and other decomposition products.

14. TRANSPORT INFORMATION:

Hazardous materials Description/Proper Shipping Name: N/A
Hazard Class: N/A
Label Required: N/A
Packing Group: N/A

15. REGULATORY INFORMATION:

SARA Title II, Subparts 311/312, Hazard Characterization:
The Superfund Amendments and Reauthorization Act of 1986 SARA) Title III requires facilities subject to this subpart to submit aggregate information on chemicals by "Hazard Category" as defined in 40 CFR 370.2. Solid formed product at ambient conditions is not categorized as a fire hazard, immediate (acute) health hazard, delayed (chronic) health hazard or reactivity hazard. (These Hazard Categories do not encompass thermal decomposition hazards.)

SARA Title III Section 302 Extremely Hazardous Substances (EHSs): No components are listed as extremely hazardous substances.

SARA Title III Section 313 Reportable Substances: Manganese, Chromium III, Antimony.

CERCLA Hazardous Substances: None

16. OTHER INFORMATION:

Abbreviations/Acronyms: Following are some abbreviations and acronyms that may appear on MSDS.

ACGIH -American Conference of Governmental Industrial Hygienists
AL -Action Level
C -Ceiling Concentration
CAS -Chemical Abstracts Service
CFR -Code of Federal Regulations
CPR -Cardiopulmonary Resuscitation
EST -Eastern Standard Time
EPA(US) -Environmental Protection Administration
HMIS -Hazardous Material Identification System
IARC -International Agency for Research on Cancer
mg/m3 -milligrams per cubic meter of air
mppcf -million particles per cubic foot
MSDS -Material Safety Data Sheet
MSHA -Mine Safety and Health Administration
N/A -Not Applicable
NFPA -National Fire Protection Association
NIA -No Information Available
NIF -No Information Found
NIOSH -National Institute for Occupational Safety and Health
NTP -National Toxicology Program
OSHA -Occupational Safety and Health Administration
PEL -Permissible Exposure Limit
PNOR -Particulate Not Otherwise Regulated
PNOC -Particulate Not Otherwise Classified
POTW -Publicly Owned Treatment Works
PPE -Personal Protective Equipment
ppm - parts per million
resp -respirable
SARA -Superfund Amendments and Reauthorization Act (EPA)
SCBA -Self-contained Breathing Apparatus
STEL -Short-term Exposure Limit
TLV -Threshold Limit Value
TWA -Time-weighted Average
µg/m3 Micrograms per cubic meter of air
< -Less than
> -Greater than

NFPA 704 – Health and Safety Standard maintained by the US National Fire Protection Association. This standard is directed toward identification of risks that may be encountered during fire and emergency response conditions and is the basis for WHMIS (Canada) and safety classification.

WHMIS (Canada) – Workplace Hazardous Materials Information System. The numerical hazard classification methodology of the Canadian WHMIS is based upon US NFPA 704.

Disclaimer:
Details presented in this MSDS were derived from literature sources and regulatory documents believed to be accurate and authoritative. The purpose of this MSDS is to serve as a general guide to users of this product. It is the user's responsibility to comply with all federal, state and local regulations. The user must satisfy requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200 and any other applicable occupational health and environmental regulations. This MSDS is not intended as a total regulatory compliance document, nor should it be construed as a license or a recommendation to violate any law or infringe on any patent. The User (not the supplier) is uniquely positioned to know the conditions of use, and assumes responsibility for process safety and health.