

TRUNANO™

TRUNANO MARINE ARMOR
MATERIAL SAFETY DATA SHEET

DATE OF PREPARATION
June 14, 2010

SECTION 1- PRODUCT AND COMPANY INFORMATION

COMPANY

Evolution Surface Solutions
7000 S. Cottonwood Street
Midvale, Utah 84847
855.878.6266
www.tru-nano.com

SECTION 1: PRODUCT IDENTIFICATION

Product: TruNano Marine Armor
Synonyms: Silane Resin

NFPA Est.	HMIS Est.
Health: 2	Health; 2
Fire: 2	Fire: 2
React: 1	React: 1

SECTION 2: COMPOSITION

Ingredient	Concentration	C.A.S. Number	ACGIH TLV
Trade Secret A-1	10-12	Proprietary	1000 ppm
Trade Secret A-2	6-8	Proprietary	--
Ethyl Alcohol	6-8	64-17-5	1000 ppm
Methyl Acetate	54-56	79-20-9	200 ppm
Trade Secret B	16-18	Proprietary	--

SECTION 3: CHEMICAL AND PHYSICAL PROPERTIES

Vapor pressure: 9 hPa @ 20° C
Solubility in Water: Insoluble
Boiling Point: >90°C
Odor: Mild fruity
Vapor Density: Heavier than air
Specific Gravity: 1.02
Appearance: clear to slightly milky liquid
V.O.C 95 gm/liter

SECTION 4: FLAMMABILITY AND EXPLOSIVE PROPERTIES

Flash Point: < 93° C
Recommended Extinguishing Agents: Use water spray, foam, dry chemical, or CO2
Hazardous Products Formed by Fire
or Thermal decomposition: Hazardous fumes (ethanol, phenolics, oxides of carbon and nitrogen) may be evolved upon exposure to heat or open flame.
Unusual Fire or Explosion Hazards: Flammable
Compressed Gasses: None
Pressure at room temp: N.A.

**TRUNANO MARINE ARMOR
MATERIAL SAFETY DATA SHEET**

SECTION 5: REACTIVITY DATA

Stability: Stable

Hazardous Polymerization: May occur

Hazardous Decomp. Prod.: Ethanol

Incompatibility: Oxidizers, alkalis, acids, aliphatic amines, water

SECTION 6: SPILL OR LEAK PROCEDURES

Dike area to prevent spreading. Absorb on vermiculite, sand or other inert absorbing material.

Dispose of as a chemical waste in accordance with current local, state and federal regulations.

SECTION 7: STORAGE AND HANDLING PROCEDURES

Storage: Avoid storage over 100° F, contamination with incompatible materials. Keep containers tightly closed in a cool, well ventilated place. Protect from moisture. Residual vapors might explode on ignition. Do not apply heat, cut, drill, grind or weld on or near this container.

Handling: Provide good ventilation or extraction. Avoid prolonged or repeated breathing of vapor. Avoid contact with eyes, skin and clothing. Keep away from heat, sparks, flames and other sources of ignition. Wash thoroughly after handling.

SECTION 8: SHIPPING REGULATIONS

DOT and IATA Hazard Classification: Class 3 Flammable Liquid

Proper DOT Shipping Name: Coatings Solution

Identification Number: DOT – UN 1139 IATA – UN 1139

SECTION 9: EMERGENCY TREATMENT PROCEDURES

Eye Irritation: Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Skin Contact: In case of skin contact, wash thoroughly with soap and water. Remove contaminated clothing and shoes. Do not use organic solvents for cleanup as they may dry or irritate the skin and act as a carrier for chemical absorption.

Inhalation: If aerosol or mists are formed, remove affected person to fresh air. Possible discomfort includes irritation of mucous lining (nose, throat, eyes), cough, sneezing and flow of tears. Call a physician immediately if breathing difficulties occur: keep patient half sitting with upper body raised.

Ingestion: If accidentally swallowed, rinse mouth thoroughly with water and, afterwards, drink plenty of water. In case of discomfort, obtain medical attention. Notes to physician if substance has been swallowed: early endoscopy in order to assess mucosa lesions in the esophagus and stomach which may appear. If necessary, aspirate leftover substance.

SECTION 10: PERSONAL PROTECTION

Respiratory: Positive fresh air exhaust should be provided in the work area. A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use.

Skin: Avoid skin contact. Wear butyl-rubber gloves and impervious protective clothing.

Eyes: Do not wear contact lenses. Chemical safety goggles or splash shields are recommended.

SECTION 11: HEALTH HAZARD DATA

**TRUNANO MARINE ARMOR
MATERIAL SAFETY DATA SHEET**

Potential Routes of Entry: Skin, eyes, inhalation.

Symptoms of Overexposure: Possible skin and eye irritation on contact. Inhalation of vapors in an unventilated area may, over time, induce headaches or dizziness.

Exposure Limits:	ACGIH (TLV)	OSHA (PEL)	OTHER
Ingredients:			
Trade Secret A-2	10 ppm	100 ppm	--
Ethyl Alcohol	1000 ppm	1000 ppm	--
Methyl Acetate	200 ppm	200 ppm	

	Target Organs	Carcinogen	NTP	IARC
Trade Secret A-1	IRR, LIV, KID	NO	NO	NO
Trade Secret A-2	IRR, LIV, KID	NO	NO	NO
Ethyl Alcohol	HEART, IRR, LIV, KID	NO	NO	NO
Methyl Acetate	HEART, IRR, LIV, KID	NO	NO	NO
Trade Secret B	NONE	NO	NO	NO

Abbreviations:
N/A: Not Applicable
IRR: Irritant
LIV: Liver

ALG: Allergen
KID: Kidney
REP: Reproductive

SECTION 12: REGULATORY INFORMATION

Sara Listed Ingredients: Trade Secret A-2, Trade Secret A-2, Trade Secret B

TSCA Inventory: Ethyl Alcohol, Methyl Acetate

STATE RIGHT-TO-KNOW

CALIFORNIA Proposition 65

This product does not contain materials which the State of California has found to cause cancer, birth defects, or other reproductive harm.

OTHER REGULATORY INFORMATION: ** NONE **

ABBREVIATIONS:

- ACGIH = American Conference of Governmental Industrial Hygienists**
- OSHA = Occupational Safety and Health Administration**
- TLV = Threshold Limit Value**
- PEL = Permissible Exposure Limit**
- NTP = National Testing Program**
- IARC = International Agency for Research on Cancer**
- NFPA = National Fire Protection Association**
- HMIS = Hazardous Materials Identification System**
- = No Data / Not Available**
- N.A. = Not Applicable**

**TRUNANO MARINE ARMOR
MATERIAL SAFETY DATA SHEET**

IMPORTANT LIABILITY DISCLAIMER

The information contained in this Material Safety Data Sheet (MSDS) is believed to be correct as it was obtained from sources we believe are reliable. However, no representations, guarantees or warranties of any kind are made as to its accuracy, suitability for particular applications, hazards connected with the use of the material, or the results to be obtained from the use thereof. User assumes all risks and liability of any use, processing or handling of any material, variations in methods, conditions and equipment used to store, handle or process the material and hazards connected with the use of the material are solely the responsibility of the user and remain at his sole discretion. Compliance with all applicable federal, state, and local laws and regulations remains the responsibility of the user, and the user has the responsibility to provide a safe work place, to examine all aspects of its operation and to determine if or where precautions, in addition to those described herein, are required.