

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: ELASTA-TUFF 6000-AL-HS

PRODUCT USE: Polyurethane Top Coat

===== SECTION I - COMPANY IDENTIFICATION =====

DISTRIBUTED BY: The Rot Doctor
PO BOX 30612
Seattle, WA, 98113
(206)364-2155

FOR CHEMICAL EMERGENCY
Spill, Leak, Fire, Exposure or Accident
CALL INFOTRAC - Day or Night
1-800-535-5053
Outside the United States call Collect
1-352-323-3500

MSDS REVISED: July 05, 2012

===== SECTION II - COMPONENT INFORMATION =====

OCCUPATIONAL HAZARDOUS INGREDIENTS

Hazardous Components	CAS No.	OSHA PEL	ACGIH TLV	Wt. % Range	Vapor Pressure mm Hg @ TEMP
1-Methoxy-2-Propyl Acetate	108-65-6	100 ppm	100 ppm	2 - 5	4.8 @ 38°C (100°F)
Aromatic Hydrocarbon Solvent	64742-95-6	100 ppm	100 ppm	18 - 22	4.8 @ 38°C (100°F)
Aliphatic Diisocyanate	4098-71-9	.005 ppm (SKIN)	.005ppm (SKIN)	< 0.5	.0003 @ 20°C (68°F)
Aliphatic Urethane Prepolymer	Proprietary	N/E	N/E	51 - 55	
Crystalline Silica (Quartz)	14808-60-7	0.05 mg/m ³	0.05 mg/m ³	< 1	
Titanium Dioxide	13463-67-7	0.10 mg/m ³	0.10 mg/m ³	7 - 10	

Information concerning non-hazardous ingredients is considered a trade secret

===== SECTION III - HAZARDS IDENTIFICATION =====

EMERGENCY AND HAZARDS OVERVIEW: Combustible, viscous, pigmented liquid with a solvent odor. Causes skin irritation. Causes eye irritation. Harmful if swallowed or inhaled. Vapors are heavier than air and may travel to distant sources of ignition and flash back. Overexposure to vapors may cause dizziness, headache and central nervous depression. The product contains small amounts of isocyanate, which can cause reactivation of prior asthma-type allergic reactions and irritation of nose, throat and lungs.

RATINGS Health 2 Flammability 1 Reactivity 1

PRIMARY ROUTE OF EXPOSURE: Skin x Inhalation x Eye x Ingestion x

HEALTH EFFECT INFORMATION

EYE CONTACT: May cause eye irritation if wiped or rubbed into eyes.

SKIN CONTACT: May cause skin irritation if wiped or left on the skin.

INHALATION: May cause irritation of respiratory tract which may result in sinusitis, bronchitis or asthma. Breathing vapors may cause central nervous system depression.

INGESTION: Moderately toxic. Ingestion may cause symptoms similar to those of inhalation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Prolonged exposure to solvents and isocyanates may aggravate allergic reactions to nose, throat and lungs.

===== SECTION IV - FIRST AID INFORMATION =====

EYE CONTACT: Immediately flush with copious amounts of lukewarm water for at least 15 minutes. Have eyes examined and treated by medical personnel.

SKIN CONTACT: Dry skin with paper towel or similar. Wash affected skin thoroughly with soap and water. Immediately remove contaminated clothing. Wash contaminated clothing before reuse. Get medical attention if any discomfort continues.

INHALATION: Move the exposed person to fresh air at once. When breathing is difficult, properly trained personnel may assist affected person by administering 100% oxygen. If not breathing, give artificial respiration, preferably mouth-to-mouth. Get medical attention.

INGESTION: If swallowed, contact a physician immediately. Do not induce vomiting. Decision to induce vomiting should only be made by a physician. Never give anything by mouth to an unconscious person.

NOTES TO PHYSICIAN: This product contains aromatic and aliphatic hydrocarbon solvents and isocyanate.

===== SECTION V - FIRE AND EXPLOSION INFORMATION =====

FLAMMABLE PROPERTIES

FLASH POINT: 106°F

TEST METHOD: TCC

FLAME EXTENSION: NA

TEST METHOD: NA

FLAMMABLE LIMITS IN AIR BY VOLUME

UPPER PERCENT: 13

LOWER PERCENT: 1

AUTOIGNITION TEMPERATURE: NA **TEST METHOD:** NA

NEPA CLASSIFICATION: H 2 F 2 R 1

EXTINGUISHING MEDIA: CO₂, foam or dry chemicals.

FIRE FIGHTING MEASURES

SPECIAL FIRE FIGHTING PROCEDURES AND EQUIPMENT: Use alcohol resistant foam, carbon dioxide, dry chemical to fight fires. Water spray may be used to cool containers. Water or foam may cause frothing if liquid is burning. When entering fire area wear NIOSH/OSHA approved, self-contained breathing apparatus and full protective gear.

UNUSUAL FIRE AND EXPLOSION CONDITIONS: Vapors may be ignited by heat or sparks. Vapors are heavier than air and may travel to distant sources of ignition and flash back. Heat-exposed containers may burst. Material may collect static charges which can cause an incendiary electrical discharge. Empty container contains product residues. Do not pressurize, cut, weld, drill, grind or expose empty containers to heat flame, sparks, static electricity or other sources of ignition. They may explode and cause injury or death.

HAZARDOUS COMBUSTION BY-PRODUCTS: CO, CO₂, N₂O, HCN, unburned hydrocarbons, toxic fumes.

===== SECTION VI - ACCIDENTAL RELEASE MEASURES =====

PERSONAL SAFEGUARDS: Immediately evacuate all non-essential personnel to safe places. Emergency responders should wear positive pressure supplied air respirator with full face piece and proper protective gear before entering the affected area.

REGULATORY NOTIFICATIONS: Waste of this product is defined as hazardous according to U.S. EPA. Spill reporting requirements and reportable quantities vary by region. Consult all applicable state and local regulations. For Canada, observe all precautions noted above.

CONTAINMENT AND CLEAN-UP: Remove all sources of ignition. Provide ventilation. Respiratory protection is recommended during spill clean-up. Stop leak if possible without risk. Prevent liquids from entering sewers, drains or waterways by diking with sand or earth. Absorb with vermiculite or other absorbent material, then flush area with decontamination solution. Put in open drums. Treat and clean with decontamination solution consisting of water containing 4-8% ammonia and 2% detergent.

===== SECTION VII - HANDLING AND STORAGE INFORMATION =====

HANDLING: Provide good ventilation. Avoid prolonged contact with the skin. Air circulations and exhaustion of isocyanate or solvent vapors must be maintained until the coatings have fully cured to insure that no potential fire, explosion or health hazard remains. Use solvent resistant gloves. Avoid rubbing eyes while handling. Respiratory caution to be taken if the cured product is ground or sanded as this may generate hazardous dusts.

STORAGE: Store in cool, dry, ventilated space away from direct sunlight. Keep away from heat, sparks, open flames, electrical equipment, welding torches, pilot lights, etc. Store at 10-30°C

EMPTY CONTAINER WARNINGS

DRUMS: Do not reuse empty drums or containers. Do not cut, drill, grind or weld on or near the empty drum.

PLASTIC: Do not reuse empty containers.

===== SECTION VIII - EXPOSURE CONTROLS/PERSONAL PROTECTION INFORMATION =====

EXPOSURE LIMITS AND GUIDELINES

COMPONENT	CAS No.	EXPOSURE LIMIT
Quartz (respirable)	14808-60-7	0.05 mg/m ³ TWA, NIOSH
Aromatic hydrocarbon solvent	64742-95-6	100ppm ACGIH TWA
Aliphatic diisocyanate	4098-71-9	0.005ppm OSHA PEL

PERSONAL PROTECTIVE EQUIPMENT

EYE/FACE PROTECTION: Wear safety goggles

SKIN PROTECTION: Use solvent resistant gloves and long sleeved clothing.

RESPIRATORY PROTECTION: If airborne concentrations exceed or are expected to exceed the TLV, use MSHA/NIOSH approved positive pressure supplied air respirator with a full-face piece during application. After application use CCR (Chemical Cartridge Respirator).

PERSONAL HYGIENE: Avoid rubbing eyes during handling. Wear chemical tight goggles or full face shield. Use good personal hygiene practices to avoid incidental ingestion.

ENGINEERING CONTROLS/WORKS PRACTICES

VENTILATION: Provide local exhaust or area ventilation to maintain concentration of vapors below TLV. Use explosion proof ventilation equipment. Take care not to draw vapors into non-explosion proof or spark generating equipment or into occupied office areas or enclosed areas with inhabitants.

OTHER: Source of clean water should be available in the work area for flushing eyes and skin. Wash thoroughly with soap and water after use and before eating, smoking and using toilet.

===== SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES =====

APPEARANCE: Colored viscous liquid	OCTANOL/WATER COEFFICIENT: Log K = NA
ODOR: Typical solvent odor	VAPOR PRESSURE: ND
PHYSICAL STATE: Viscous liquid	VAPOR DENSITY (AIR=1): >air
PH: Not Applicable	PERCENT VOLATILE BY VOLUME: 24-30
DOT CORROSIVITY: Not applicable	VOLATILE ORGANIC CONTENT: < 250 g/liter
BOILING POINT: 284 to 500 F	MOLECULAR WEIGHT: NA
MELTING POINT: NA	AVERAGE CARBON NUMBER: NA
SPECIFIC GRAVITY: 1.15	VISCOSITY @ 100F: NA
POUR POINT: NA	VISCOSITY @ 40C: NA
SOLUBILITY IN WATER: Negligible	

===== SECTION X - STABILITY AND REACTIVITY INFORMATION =====

CHEMICAL STABILITY: Stable under normal conditions. Avoid heat, sparks, flames

CONDITIONS TO AVOID: Avoid contact with strong oxidizing materials and bases. Avoid contact with water.

INCOMPATIBLE MATERIALS TO AVOID: Strong oxidizers. Alkali metals.

===== SECTION XI - TOXICOLOGICAL INFORMATION =====
(will only print available data)

PRIMARY EYE IRRITATION: Irritating

PRIMARY SKIN IRRITATION: Irritating

ACCUTE DERMAL TOXICITY: NA

SUBACUTE DERMAL TOXICITY: NA

DERMAL SENSITIZATION: NA

INHALATION TOXICITY: NA

INHALATION SENSITIZATION: NA

ORAL TOXICITY: Mutagenicity: NA

CARCINOGENICITY: Diisocyanates are suspect carcinogens. When ingested, Diisocyanate have caused cancer in certain animals. Crystalline silica is a carcinogen, listed as Human Carcinogen Category 1 in IARC. California Proposition 65 Chemicals and NIOSH also list respirable crystalline silica as carcinogenic. Keep it below 0.05 mg/m³.

REPRODUCTIVE TOXICITY: NA

TERATOGENICITY: NA

IMMUNOTOXICITY: NA

NEUROTOXICITY: NA

OTHER: NA

No other toxicological information available

===== SECTION XII - ECOLOGICAL INFORMATION =====

AQUATIC TOXICITY: Not known.

TERRESTRIAL TOXICITY: Not known.

CHEMICAL FATE AND TRANSPORT: Not known.

No other ecological information available

===== SECTION XIII - DISPOSAL CONSIDERATIONS =====

REGULATORY INFORMATION: Consult all regulations (federal, state, provincial, local ect.) or a qualified waste disposal firm when characterizing waste for disposal.

WASTE DISPOSAL METHODS: Mix the chemical with an inert material such as sand, vermiculite, ect. and place in a suitable container. Dispose of in accordance with federal, state and local environmental control laws.

===== SECTION XIV - TRANSPORT INFORMATION =====

This section is provided to assist in the basic domestic DOT shipping classification of this product and does not contain all regulatory transportation details. Review all applicable domestic air and vessel and all international air, vessel and ground transportation regulations for other requirements and restrictions.

DOT Basic Description: Paint
Hazard Class: 3
UN Number: UN 1263
Packing Group: III
Description: Combustible Liquid, n.o.s
Other: Not regulated for non-bulk domestic ground shipments for packaging of 450 liters (119 gallons) or less (DOT 49CFR 173.150(f)).

IATA UN Number: UN 1263
IATA Air Shipping Name: Paint
IATA Hazard Class: 3
IATA Packing Group: III
IATA / IMDG Description: UN1263, Paint, Class 3, PG III, Flammable Liquid

===== SECTION XV - REGULATORY INFORMATION =====

REGULATORY LISTS

U.S. TSCA INVENTORY: All components of this material are on the US TSCA Inventory or exempt from listing on the TSCA Inventory.

SARA 311/312 CATEGORIES

ACUTE: Yes **CHRONIC:** Yes **FIRE:** Yes **PRESSURE:** Yes **REACTIVE:** Yes

SARA SECTION 313: This product contains the following Sara Title III, Section 313 Chemicals:

CHEMICAL NAME	CAS Number
Aliphatic diisocyanate	4098-71-9
Quartz	14808-60-7
Titanium Dioxide	13463-67-7

REGULATORY LISTS SEARCHED

HEALTH & SAFETY:
ENVIRONMENTAL: NA
INTERNATIONAL: NA
STATE: FL, MA, MN, PA, RI
NATIONAL INVENTORIES: NA

CALIFORNIA PROPOSITION 65 INFORMATION: WARNING!

This product contains detectable components, including the following components, which are substances or belong to classes of substances, known to the State of California to cause cancer, birth defects and/or other reproductive harm.

CHEMICAL NAME	CAS Number
Aliphatic diisocyanate	4098-71-9
Quartz	14808-60-7
Titanium Dioxide	13463-67-7

CANADIAN REGULATIONS

DSL/NDSL: The components of this product are listed on the Canadian Domestic Substance List (DSL) or Non-Domestic Substance List (NDSL).

WHMIS Hazard Class: B3 D2A

This product has been classified in accordance with hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

OTHER REGULATIONS: No other information available

===== SECTION XVI - OTHER INFORMATION =====

HMIS RATINGS- Health: 2 Flammability: 2 Reactivity: 1 Personal Protection: G

DISCLAIMER: The information contained herein is accurate to the best of the manufactures knowledge and belief. However, the conditions of handling and use are beyond our control, we make no guarantee of results and assume no liability for damages incurred by use of this material. All chemicals may present unknown health hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose or any other nature are made hereunder with respect to the information contained herein. It is the responsibility of the user to comply with all applicable federal, state and local laws and regulations. This data and information is furnished upon the condition that the person receiving it shall make his own determination of the conditions for safe use of this product.

LEGEND: N.A. - Not Applicable, N.E. - Not Established, N.D. - Not Determined

MSDS REVISIONS Previous Version Date: 01/03/11 Revision Date: 07/05/12