

MATERIAL SAFETY DATA SHEET

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Product Identification

Product Class: Polyester Resin Adhesive
Product Name: Liquid Roc 300 Polyester Twin Tube
Description: Polyester system packaged in a dual component side-by-side plastic tube. Part A is in the large tube and part B is in the small tube.

Hazardous Ingredients

Ingredients:	CAS Number:	Exposure limits:
Part A		
Limestone (pulverized)	1317-65-3	PEL = 5 mg/ m ³ (as resp. dust)
Unsaturated polyester resin	36346-15-3	None established
Styrene monomer	100-42-5	PEL = 100 ppm PEL-C = 200 ppm TLV = 50 ppm STEL = 100 ppm
Crystalline Silica	7631-86-9	PEL = 10 mg/ m ³ (as resp. dust) TLV = 0.1 mg/ m ³ (as resp. dust)
Thixotropic powder	Proprietary**	None established
Part B		
Benzoyl peroxide	94-36-0	PEL = 5 mg/ m ³ TLV = 5 mg/ m ³
Diisobutyl Phthalate	84-69-5	None established

PEL = OSHA permissible exposure limit. TLV = ACGIH threshold limit value.

This is an 8 hour time weighted average unless otherwise indicated by "C" (ceiling) or "STEL" (Short term exposure limit) .

**TSR #222-306831-5037p and 222-306831-5038p

Physical Data

Appearance and Odor:	Part A - light gray paste, styrene odor Part B - white emulsion with slight odor
Boiling Point:	Part A - 248-282° F Part B - decomposes above 150° F
Melting Point:	not determined
Vapor Pressure:	5 mm Hg @ 68° F (styrene)
Vapor Density:	3.6 (styrene)
Evaporation rate:	Not determined
Solubility in water:	Nil
Specific Gravity:	Part A - 1.41 Part B - 1.152
PH:	not determined

Fire and Explosion Hazard Data

Flammability Classification:	OSHA Class IC - Flammable Liquid
Flash Point:	93° F
Flammable limits:	LEL = 1.1 UEL = 6.1
Extinguishing media:	Carbon dioxide, dry chemical, foam, water
Special fire fighting procedures:	Cool with water spray. Use self-contained breathing apparatus.
Unusual fire and explosion hazards:	Isolate from heat, electrical equip. sparks, and open flame. Decomposition and combustion products, may be toxic.

Reactivity Data

Stability:	Stable at temperatures below 122° F
Incompatibility:	Strong acids, peroxides and other oxidizing agents.
Hazardous decomposition products:	Carbon dioxide, carbon monoxide
Hazardous polymerization:	Will not occur
Conditions to avoid:	Styrene will polymerize at elevated temperatures. Benzoyl peroxide will decompose at temperatures >150° F

Health Hazard Data

Carcinogenicity:	Crystalline silica is considered by IARC to be an animal carcinogen and is known to cause silicosis by inhalation of airborne dusts. If the silica is encapsulated in the adhesive no exposure to airborne dusts is to expected. However, during removal by mechanical abrasion appropriate safety practices should be followed to prevent inhalation of airborne dusts. Styrene is a suspected carcinogen in animals with inconclusive data on humans. The nature and use of this product should not pose a cancer risk to humans.
Primary routes of exposure:	Dermal, inhalation
Signs and symptoms of exposure:	Causes eye burns. Skin irritant. Can have a narcotic effect if inhaled. Can cause allergic skin and respiratory condition. "Styrene sickness" consisting of drowsiness, nausea, headache, fatigue, and dizziness has been mentioned in workers exposed at 200-700 ppm.
Medical conditions aggravated by exposure:	Skin and eye conditions.

Emergency and First Aid Procedures

Eyes:	Immediately flush with plenty of water for at least 15 minutes. Call a physician.
Skin:	Wash with soap and water. Remove contaminated clothing and launder before reuse.
Inhalation:	Move victim to fresh air. Give oxygen and/or artificial respiration if needed. Call a physician
Ingestion:	Give plenty of water to drink. Do not induce vomiting. Call a physician. <u>Never</u> give anything by mouth to an unconscious person.
Other:	Referral to a physician is recommended if there is any question about the seriousness of the injury/exposure.

Safe Handling and Personal Protective Equipment

Respiratory Protection:	Use NIOSH approved organic vapor respirator when vapor concentrations exceed recommended exposure limits.
Ventilation:	General (natural or mechanically induced fresh air movements that maintain vapor concentrations below recommended exposure limits.
Eye Protection:	Safety glasses (Side shields recommended).
Protective Gloves:	Impermeable (Neoprene or rubber).

Precautions For Safe Handling and Use

Precautionary Labeling:	Warning! Flammable. Causes eye burns and skin irritation. Can have anesthetic effect if inhaled. Can cause allergic skin and respiratory reactions. Keep away from heat, sparks and open flame. Avoid contact with eyes, skin and clothing. Avoid breathing in vapor. Avoid prolonged or repeated contact with skin. Use with adequate ventilation. Wash thoroughly after handling.
Handling and Storing:	Keep in a cool dry place out of direct rays of sun. Store below 75° F. Keep away from ignition sources such as excess heat, sparks, and open flame.
Spill Procedures:	Remove all sources of ignition. Cover with absorbent material and place in salvage container for proper disposal.

Regulatory Information

OSHA Hazard Communication:	This material safety data sheet has been prepared in compliance with the Federal OSHA hazard communication standard and this product is considered to be a hazardous chemical under that standard.
DOT proper shipping name:	Resin solution/flammable liquid/UN 1866.
TCSA Inventory Status:	Chemical components listed on TSCA inventory.
SARA (title III)- Sections 302, 311, 312 & 313:	
Section 302:	Extremely Hazardous Substances (40 CFR 355) This product does not contain ingredients listed in Appendix A of 40 CFR 355 as an extremely hazardous substance.
Section 311 & 312:	MSDS Requirements (40 CFR 370) This product contains ingredients listed under 29 CFR 1910.1200 (c) as referenced in 40 CFR 370.
Section 313:	List of Toxic Chemicals (40 CFR 372) This product contains ingredients listed under 40 CFR 72.65.
Waste Disposal Methods:	Consult with local regulatory agencies or corporate personnel for disposal methods that comply with local, state and federal health and environmental regulations.

User Identification

To the best of our knowledge the information contained herein is correct. 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. Final determination of suitability of the chemical is the sole responsibility of the user. Users of any chemical should satisfy themselves that the conditions and methods of use assure that the chemical is used safely. NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESSED OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OF ANY OTHER NATURE ARE MADE HEREUNDER WITH RESPECT TO THE INFORMATION CONTAINED HEREIN OR THE CHEMICAL TO WHICH THE INFORMATION REFERS.