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Uro-Bond[®] III Silicone Adhesive

Urocure Products, Inc. urges each customer or recipient of this MSDS to study it carefully to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals who are experts in ventilation, toxicology and fire prevention as necessary or appropriate to the use and understanding of the data contained in the MSDS.

To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors and others whom it knows or believes will use this material of the information regarding hazards or safety; (2) furnish this same information to each of its customers for the product; and (3) request its customers to notify their employees, customers and other users of the product of this information.

SECTION 1 • MATERIAL & COMPANY INFORMATION

- 1.1 Product Name: Uro-Bond[®] III Silicone Adhesive.
- 1.2 Catalog Code(s): 500003, 5000015.
- 1.3 Component CAS #(s): 141-78-6.
- 1.4 Synonym(s): Ethyl Acetate, Ethyl Ester, Silicone dispersion.
- 1.5 Chemical Name: Silicone dispersion.
- 1.6 Chemical Formula: Proprietary.
- 1.7 Manufacturer/Distributor: Urocure Products, Inc. 2735 Melbourne Ave., Pomona, CA 91767-1931, U. S. A.
- 1.8 For Information: (909) 621-6013 Monday ~ Thursday 7:30AM ~ 5:00PM (PST).
- 1.9 Emergency Contact: (800) 457-4280 (InfoTRAC 24 hour number).

SECTION 2 • COMPOSITION & INFORMATION ON INGREDIENTS

- 2.1 This product is classified as a “*flammable liquid*” according to Title 29 of the Code of Federal Regulations, OSHA Section 1910.1200©, page 463. “*Flammable liquid*” means any liquid having a flashpoint below 100° F (37.8° C), except any mixture having components with flashpoints of 100° F (37.8° C), or higher, the total volume of which make up 99 percent or more of the total volume of the mixture.
- 2.2 This product does not contain asbestos or polychlorinated biphenyls.
- 2.3 Product Components:

<u>% by Volume</u>	<u>Material</u>	<u>CAS #</u>	<u>EINECS #</u>	<u>CLASSIFICATION</u>
50	Ethyl Acetate	141-78-6	205-500-4	Flammable

SECTION 3 • HAZARDS IDENTIFICATION

3.1 HAZARD RATING

Hazard Rating	NFPA	HMIS
Health	2	2
Fire	3	3
Reactivity	0	0
Personal Protection	N/A	B

- 0 = Minimal
- 1 = Slight
- 2 = Moderate
- 3 = Serious
- 4 = Extreme

3.2 Primary Routes of Contact: Nasal, oral and skin.

3.3 Exposure Guidelines (49CFR 1910.1200): Exposure Guidelines: Exposure limits represent regulated or recommended worker breathing zone concentrations measured by validated sampling and analytical methods, meeting the regulatory requirements:

%	Material	CAS #	EXPOSURE VALUE			
			OSHA	ACGIH	TLV	TWA
50	Ethyl Acetate	141-78-6	400 ppm	400 ppm	400 ppm	1,400 mg/m ³ †

† Limit established by manufacturer. NE = Not Established.

3.4 ACUTE EXPOSURE: No serious effects are known.

3.4.1 SKIN ABSORPTION: Can occur. May cause irritation.

3.4.2 INHALATION: Vapor may be irritating experienced as nasal discomfort and discharge with dizziness, nausea, headache, unconsciousness, pulmonary edema, liver and kidney damage.

3.4.3 SKIN CONTACT: Causes irritation with discomfort, seen as local redness and possible swelling. Prolonged contact may result in drying and cracking of the skin due to a defatting action.

3.4.4 EYE CONTACT: Liquid causes irritation, experienced as stinging, excess blinking and tear production, blurred vision with excess redness and swelling of the conjunctiva and corneal clouding.

3.4.5 INGESTION: May cause irritation of the mouth, throat, esophagus and stomach, with headache, nausea, narcosis and unconsciousness. Aspiration into the lungs may occur during ingestion or vomiting, resulting in lung injury.

3.5 EFFECTS OF REPEATED OVEREXPOSURE: Ethyl Acetate is a mild eye and mucous membrane irritant, primary skin irritant and central nervous system depressant. Repeated contact with Ethyl Acetate produces eczematous and sensitization dermatitis. Acute inhalation may product narcosis, anemia, liver and kidney damage and pulmonary edema.

3.6 Medical Conditions Aggravated by Exposure: Because of its irritating and defatting properties, this material may aggravate existing dermatitis. Preclude from exposure those individuals with diseases of the eyes, liver, kidneys and lungs.

3.7 Significant Laboratory Data with Possible Relevance to Human Health Hazard Evaluation: None currently known.

3.8 Other Effects of Overexposure: None currently known.

SECTION 4 • FIRST AID MEASURES

4.1 INHALATION: Remove to fresh air. Give artificial respiration if not breathing. Oxygen may be given by qualified personnel if breathing is difficult. Obtain medical attention.

4.2 EYES: Flush with water and continue washing for at least 15 minutes. Obtain medical attention if symptoms persist.

4.3 SKIN: Remove contaminated clothing and wash skin with soap and water. Wash contaminated clothing before reuse.

4.4 INGESTION: If individual is fully conscious, give two glasses of water or milk at once. Do not induce vomiting. Obtain medical attention immediately.

4.5 NOTE TO PHYSICIAN: Any material aspirated during vomiting may cause lung injury; therefore, emesis should not be induced mechanically or pharmacologically. If it is considered necessary to evacuate the stomach contents, this should be done by means of least likely to cause aspiration (e.g. gastric lavage after endotracheal intubation).

SECTION 5 • FIRE AND EXPLOSION HAZARD

5.1 Flash Point, Method Used: 24° F (-4.5° C), Tag Closed Cup (TCC).

5.2 Auto Ignition: Not determined.

5.3 Flammable Limits in Air by Volume at 100° F (38° C) LEL, UEL: 2.2%, 11.0%.

5.4 Extinguishing Media: Apply alcohol-type or universal-type foams applied by manufacturer's recommended techniques for large fires. Use carbon dioxide or dry chemical for small fires.

- 5.5 Special Fire Fighting Precautions: Do not spray a solid stream of water or foam directly into a pool of hot, burning liquid as the may cause frothing and may intensify the fire. Use NIOSH approved positive-pressure self-contained breathing apparatus when fighting fire in an enclosed area.
- 5.6 Unusual Fire and Explosion Hazards: Vapors form from this product and may travel or be moved by air currents and ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharges or other ignition sources at locations distant from product handling point. Vapors from this product may settle in low or confined areas or travel a long distance to an ignition source and flash back explosively. Flammable Liquid. Vapor may be ignited by static sparks. User proper bonding and grounding during liquid transfer as described in the National Fire Protection Association (NFPA) document 77. This product contains polydimethylsiloxane which can generate formaldehyde as a byproduct of oxidative thermal decomposition at temperatures greater than 300° F (150° C). See section 10 for further information.
- 5.7 Special Fire Fighting Equipment: Use NIOSH approved positive-pressure self-contained breathing equipment and protective clothing should be worn in fighting fires involving chemicals which produce carbon, carbon dioxide, carbon monoxide, etc.

SECTION 6 • ACCIDENTAL RELEASE MEASURES

- 6.1 Small Spills: Dilute with water and wipe-up or absorb with dry earth, sand or other non-combustible material and place in an appropriate waste disposal container.
- 6.2 Large Spills: Flammable liquid. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed and transfer to suitable containers for disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
- 6.3 PROTECTIVE EQUIPMENT
- 6.3.1 EYES: Use proper protection—Wear OSHA Standard goggles or face shield—Safety glasses at a minimum.
- 6.3.2 SKIN: Washing with soap and water after use/handling is adequate. Remove contaminated clothing and shoes as-soon-as practical and clean thoroughly before reuse. Rubber or plastic gloves are recommended.

SECTION 7 • HANDLING AND STORAGE

- 7.1 Precautions to be taken in Handling and Storage: Normal precautions common to safe manufacturing practices should be followed in handling and storage. Keep container closed, in a cool, dry place. Keep well ventilated. Do not breathe fumes and avoid skin contact. Flammable. Harmful if swallowed contacts skin and/or inhaled.
- 7.2 Materials to Avoid: WARNING! Hot organic chemical vapors or mists are susceptible to sudden spontaneous combustion when mixed with air. Ignition may occur at temperatures below those published in the literature as "auto ignition" or "ignition" temperatures. Ignition temperatures decrease with increasing vapor volume and vapor/air contact time and are influenced by pressure changes. Ignition may occur at typical elevated-temperature process conditions, especially in processes operation under vacuum if subjected to sudden ingress of air or outside process equipment operating under elevated pressure if sudden escape of vapors or mists into the atmosphere occurs. Any proposed use of this product in elevated-temperature processes should be thoroughly evaluated to assure that safe operating conditions are established and maintained—refer to § 10.6 "Incompatibility".

SECTION 8 • EXPOSURE CONTROLS/PERSONAL PROTECTION

- 8.1 Engineering Controls: For small amounts, general ventilation; otherwise, a mechanical, local exhaust is recommended.
- 8.2 PERSONAL PROTECTION
- 8.2.1 VENTILATION: For small amounts, adequate general ventilation. For large amounts, use respiratory protection unless local exhaust ventilation is adequate or air sampling data shows exposures are within TLV and PEL Guidelines.
- 8.2.2 RESPIRATORY: No special requirements for small amounts. Large amounts an air supplied or self-contained respirator is suitable.

- 8.2.3 EYES: Use proper protection—Wear OSHA Standard goggles or face shield—Safety glasses at a minimum.
- 8.2.4 SKIN: No special requirements for small amounts. For larger amounts, use gloves suitable for defatting agents.

SECTION 9 • PHYSICAL & CHEMICAL PROPERTIES

- 9.1 Appearance: A clear to yellowish liquid.
- 9.2 Odor: Sweet, ethereal/solvent odor.
- 9.3 Taste: Bittersweet, wine-like burning taste.
- 9.4 Boiling Point: > 400° F (204° C).
- 9.5 Autoignition Point: Not determined.
- 9.6 Dielectric Strength: Not determined.
- 9.7 Evaporation Rate (Ether=1): < 1.
- 9.8 Freezing/Melting Point: Not applicable, not applicable.
- 9.9 Critical Temperature: 482° F (250° C).
- 9.10 Percent Volatile by Volume (%): 50%.
- 9.11 PH (1% solution/water): Not available.
- 9.12 Pour Point: Not determined.
- 9.13 Solubility in Water (%): Insoluble.
- 9.14 Specific Gravity (H₂O=1 at 77° F (25° C): 1.05.
- 9.15 Vapor Density (Air=1 at 77° F (25° C): 21.8.
- 9.16 Vapor Pressure (at 77° F (25° C): 1.5mm at 320° F (160° C).
- 9.17 Viscosity: Not determined.

SECTION 10 • STABILITY AND REACTIVITY

- 10.1 Stability: Stable.
- 10.2 Instability Temperature: Not available.
- 10.3 Conditions of Instability: Heat, ignition sources (flames, sparks, static), incompatible materials.
- 10.4 Corrosivity: Non-corrosive in presence of glass.
- 10.5 Conditions to Avoid: Open flames, hot surfaces and electric arcs and other sources of ignition.
- 10.6 Incompatibility (Material to Avoid): Ignites on contact with potassium tert-butoxide. Violent reaction with chlorosulfonic acid. Avoid contact with oleum, oxidizers that can cause a reaction—e. g. acids, alkalis, powdered aluminum, zinc, nitrates, etc.
- 10.7 Hazardous combustion or Decomposition: Burning can produce oxides of carbon, oxides of silicon, hydrogen chloride and phosgene (small amounts). Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the product of combustion may result in irritation of the respiratory tract. Traces of formaldehyde may be generated due to oxidative thermal decomposition at temperatures greater than 300° F (150° C). Exposure to formaldehyde can cause adverse effect such as skin and respiratory sensitization and eye and throat irritation. Formaldehyde is a potential carcinogen. Evaluate and control exposure to formaldehyde when warranted by conditions of use.
- 10.8 Hazardous Polymerization: Will not occur.

SECTION 11 • TOXICOLOGICAL INFORMATION

11.1 TOXICITY TO ANIMALS

Acute Oral LD₅₀ (mg/kg): 500-5000 (Rat) Inferred from ingredient hazard(s)
 Acute Inhalation LC₅₀ (mg/kg): 2-20 (Rat) Inferred from ingredient hazard(s)
 Acute Dermal LD₅₀ (mg/kg): 1000-2000 (Rabbit) Inferred from ingredient hazard(s)
 Other: Not applicable
 Ames Test: Not applicable

11.2 CHRONIC EFFECTS ON HUMANS

- 11.2.1 **CARCINOGENIC EFFECTS:** A4 (Not classifiable for human or animal.) by ACGIH. Causes damage to the following organs: mucous membranes, upper respiratory tract. May cause damage to the following organs: blood, kidneys, liver, central nervous system (CNS).
- 11.2.2 **OTHER TOXIC EFFECTS:** Hazardous in case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant, permeator). May affect genetic material (mutagenic). May cause adverse reproductive effects based on animal test data. No human data found at this time.

SECTION 12 • ECOLOGICAL INFORMATION

- 12.1 **Ecotoxicological Information:** Ecotoxicity in water (LC₅₀): 220 mg/l 96 hours (Fish=Fathead minnow), 212.5 ppm 96 hours (Fish=Indian catfish).
- 12.2 **BOD5 and COD:** Not available.
- 12.3 **Products of Biodegradation:** Possibly hazardous short term degradation products are not likely; however, long term degradation products may arise.
- 12.4 **Toxicity of the Products of Biodegradation:** The product itself and its products of degradation are not toxic.
- 12.5 **Chemical Fate Information:** Complete information not yet available.

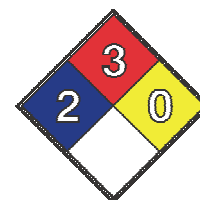
SECTION 13 • DISPOSAL CONSIDERATIONS

- 13.1 **Waste Disposal Methods:** The product is NOT biodegradable. In its purchased form (3 fl. ozs. or less), the product does not require any special disposal methods; however, disposal in accordance with applicable local, county, state and federal regulations is recommended.

SECTION 14 • TRANSPORTATION INFORMATION

14.1 MATERIAL IDENTIFICATION

<u>Authority</u>	<u>Proper Shipping Name</u>	<u>Hazard Class</u>	<u>Hazard Label</u>	<u>UN #</u>	<u>Packing Group</u>
DOT [†]	Consumer Commodity ORM-D	N/A	N/A	N/A	N/A
CTDG [†]	Consumer Commodity ORM-D	N/A	N/A	N/A	N/A
ICAO/IATA	Ethyl Acetate	3	Flammable Liquid	UN1173	II
IMO/IMDG	Ethyl Acetate	3	Flammable Liquid	UN1173	II



[†] Labeling: Product is exempt from labeling requirements in containers under 0.3 gallons (1 Liter). Regulation 49 CFR § 173.118(a).

- 14.2 **RCRA Hazard Class (40CFR 261, if discarded):** Not applicable in its purchased form.

- 14.3 **C.H.I.P. Regulations:**

Designation: Uro-Bond[®] III Silicone Adhesive
Symbol: F, Xn
Indication of Danger: Flammable, Harmful
Safety Phrases: S3/7/8/9, S23, S24, S26
Risk Phrases: R11, R20/R22, R36 (Refer to § 7 "STORAGE & HANDLING")



SECTION 15 • REGULATORY COMPLIANCE INFORMATION

- 15.1 C.H.I.P. (Chemicals Hazards Information & Packaging) Regulation 1993 Requirements: Physico-chemical and health hazard determination of all substances and preparations manufactured, transported, stored, modified or consumed within the EEC. Components present in this product at a level, which could require reporting under the statute, are: Ethyl Acetate.
- 15.2 Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III: The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III requires emergency planning based on Threshold Planning Quantities (TPQ's) and release reporting based on Reportable Quantities (RQ's) in 40 CFR 355 (used for SARA 302, 304, 311 and 312). Components present in this product at a level which could require reporting under the statute are: None.
- 15.3 The Superfund Amendments and Reauthorization Act of 1986 (SARA) Title III also requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372 (for SARA 313). Components present in this product at a level, which could require reporting under the statute, are: None.
- 15.4 INVENTORY STATUS: Yes, the ingredients are on or exempt from listing on the inventories of: United States (TSCA), Canada (DSL), Europe (EINECS/ELINCS), Australia (AICS), Japan (MITI) and South Korea (KECL).
- 15.5 RCRA Characteristics: Waste Classification: Product has not been evaluated for RCRA characteristics.
- 15.6 CERCLA, State and Local Planning Reportable Quantities: Ethyl Acetate: 5000 lbs. (2268 kg).
- 15.7 OSHA Compliance: MSDS Prepared in accordance with OSHA 29CFR 1910.1200 to comply with the Hazard Communication Standard. Important: This information must be included in all MSDS that are copied and distributed for this product.
- 15.8 STATE RIGHT-TO-KNOW COMPLIANCE
- 15.8.1 California Proposition 65: This product contains no levels of listed substances, which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute.
- 15.8.2 Right-To-Know, Substance and Spill Lists: California, Connecticut, Illinois, New York, Rhode Island, Pennsylvania, Florida, Minnesota, Massachusetts, New Jersey, Louisiana, California Director's list of Hazardous Substances: Ethyl Acetate.
- 15.9 TSCA 4(a) Final Test Rules, 8(a) IUR, 8(b) Inventory, 12(b) Annual Export Notification: Ethyl Acetate.
- 15.10 OTHER REGULATORY INFORMATION
- 15.10.1 EPA Hazard Categories: Fire Hazard, Immediate Health Hazard, Delayed Health Hazard.
- 15.10.2 WHMIS (Canada): CLASS B-2: Flammable liquid with a flash point lower than 37.8° C (100° F).

SECTION 16 • DISCLAIMER

The information contained herein is current as of the date of this Material Safety Data Sheet and is furnished in good faith as typical values and not as a product specification. No warranty of any kind, either expressed or implied, is hereby made. Since the use of this information and of these opinions and the conditions of the use of the product are not within the control of Urocare products, Inc., users should consider this data only as a supplement to other information gathered by them and must make independent determinations of suitability and completeness of information from all sources to assure proper use and disposal of these materials and the safety of employees and customers.

MATERIAL SAFETY DATA SHEET

KEY

CERCLA.... Comprehensive Environmental Response, Compensation, and Liability Act
DOT Department of Transportation
EPA Environmental Protection Agency
HMIS Hazardous Materials Identification System
IARC International Agency for Research on Cancer
OSHA Occupational Safety and health Administration
RCRA Resource Conservation and Recovery Act