



## MATERIAL SAFETY DATA SHEET (MSDS)

### Thinner for Uro-Bond<sup>®</sup> 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 I • MATERIAL & COMPANY INFORMATION

- 1.1 Product Name: Uro-Bond<sup>®</sup> Thinner, Product No. 5010 03.
- 1.2 Product Use: Thinning Uro-Bond Silicone Adhesive.
- 1.3 Chemical Name & Synonyms: Ethyl Acetate.
- 1.4 Chemical Family: Acetic Acid, Acid.
- 1.5 Synonyms: Acetic Acid, Ethyl Ester, EAN 900300.
- 1.6 Distributor: Urocure Products, Inc. 2735 Melbourne Ave., Pomona, CA 91767-1931, U. S. A.
- 1.7 For Information: (909) 621-6013 (7:00 am - 4:30 p.m. PST, Monday - Friday).
- 1.8 Emergency Contact: (800) 457-4280 (InfoTRAC 24 hour number).

#### SECTION II • HAZARDOUS INGREDIENTS/MATERIAL COMPOSITION

- 2.1 Product Mixture: Not a Mixture.
- 2.2 Product Components: Ethyl Acetate.
- 2.3 Carcinogenic Listings: (49CFR 1910.1200)
  - 2.3.1 CAS No: 000141-78-6
  - 2.3.2 Material, Wt. %: Ethyl Acetate, 100%.
  - 2.3.3 TWA (ACGIH, OSHA, NIOSH): Not Determined.
- 2.4 Shipping Information:
  - 2.4.1 DOT Hazard Class: (49CFR 172.101) 3.
  - 2.4.2 DOT Proper Shipping Name: (49CFR 172.101) Ethyl Acetate.
  - 2.4.3 Identification Number: D.O.T. (49CFR 172.101) UN1173.
  - 2.4.4 RCRA Hazard Class: (40CFR 261, if discarded) Not Available.
  - 2.4.5 CAS No: 000141-78-6
- 2.5 NFPA=National fire Protection Agency

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2.5.1 Health: (HMIS, NFPA) 1, 1

2.5.2 Flammability: (HMIS, NFPA) 3, 3

2.5.3 Reactivity: (HMIS, NFPA) 0, 0

### SECTION III • PHYSICAL & CHEMICAL PROPERTIES

3.1 Appearance and Odor: A clear to yellowish liquid with a sweet, ester or solvent odor. Threshold: 3.9 ppm

3.2 Boiling Point: 172°F (78°C)

3.3 Dielectric Strength: Not Determined

3.4 Evaporation Rate (Butyl Acetate=1): 4.1

3.5 Freezing/Melting Point: -117°F (-83°C)

3.6 Percent Volatile by Weight (%): 50

3.7 PH: Not Applicable

3.8 Pour Point: Like Water

3.9 Solubility in Water: Moderate

3.10 Specific Gravity (H<sub>2</sub>O=1 at 68°F (20°C): 0.902

3.11 Vapor Density (Air=1 at 68°F (20°C): 3.0

3.12 Vapor Pressure at 68°F (20°C): 99 mbar (75mm Hg)

3.13 Viscosity, cP: Not Determined

### SECTION IV • FIRE AND EXPLOSION HAZARD

4.1 Flash Point, Method Used: 24°F (-4°C), Tag Closed Cup

4.2 Auto Ignition (ASTM D2155): 905°F (485°C)

4.3 Flammable Limits (Lel, Uel by volume): 100°F (38°C) 2.02%, 100°F (38°C) 10.7%

4.4 Extinguishing Media: water spray, dry chemical, carbon dioxide (CO<sub>2</sub>), foam.

4.5 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. Static sparks may ignite vapors. Use proper bonding and grounding during liquid transfer as described in National Fire Protection Association document NFPA 77.

4.6 Special Fire Fighting Procedures: Do not spray a solid stream of water or foam directly into a pool of hot, burning liquid as this may intensify the fire. Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire.

4.7 Special Fire Fighting Equipment: Use of self-contained breathing equipment and protective clothing should be worn in fighting fires involving chemicals. Evacuate area in case of overheating or fire.

### SECTION V • HEALTH HAZARD & EXPOSURE INFORMATION

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

5.2 Threshold Value and Source(s): 400ppm - 8 hours (TWA, ACGIH, OSHA and NIOSH), Ethyl Acetate.

5.3 Signs and Symptoms of Overexposure: See below, "Effects of Overexposure"

5.4 Effects of Overexposure:

5.4.1 Effects of Single Overexposure:

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5.4.1.1 SWALLOWING: 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.

5.4.1.2 SKIN ABSORPTION: No evidence of adverse effects from available information.

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

5.4.1.4 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.

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

5.4.1.6 INGESTION: Expected to be a low ingestion hazard.

5.4.1.7 ACUTE TOXICITY DATA:

Oral LD-50 (rat): 5.60 g/kg

Inhalation LC-50 (rat): 16,000 ppm/6 hour(s)

Dermal LD-50 (rabbit): >20 ml/kg (highest dose tested)

Skin irritation (rabbit): Very slight

Skin sensitization (human): None

Eye irritation (rabbit): Slight

5.4.2 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 produce narcosis, anemia, pulmonary edema, liver and kidney damage.

5.5 Medical Conditions Aggravated by Exposure: Because of its irritating and defatting properties, this material may aggravate and existing dermatitis. Preclude from exposure those individuals with diseases of the eyes, liver, kidneys and lungs. Overexposure may result in the enhancement of any pre-existing adverse medical condition or allergic reactions.

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

5.7 Emergency and First Aid Procedures:

5.7.1 SWALLOWING: If individual is fully conscious, give two glasses of water or milk at once. Do not induce vomiting. Obtain medical attention without delay.

5.7.2 SKIN: Remove contaminated clothing, wipe off and wash with soap and water. Get medical attention if ill or irritation develops. Launder contaminated clothing before reuse.

5.7.3 INHALATION: Remove individual to fresh air. Give artificial respiration if not breathing. Qualified personnel may administer oxygen if breathing is difficult. Get medical attention.

5.7.4 EYES: Immediately flush with water for 15 minutes. Get medical attention if ill effects persist.

5.7.5 Notes 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 least likely to cause aspiration—i.e. gastric lavage after endotracheal intubation.

## SECTION VI • STABILITY AND REACTIVITY

6.1 Stability: Stable.

6.2 Conditions to Avoid: Avoid open flames, hot surfaces and electric arcs and other sources of ignition.

6.3 Incompatibility (Material to Avoid): Ignites on contact with potassium tert-butoxide. Violent reaction with chlorosulfonic acid. Avoid contact with oleum, acids, oxidizers, strong alkalis and nitrates.

6.4 Hazardous Polymerization: Will not occur.

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6.5 Hazardous Combustion or Decomposition Products: 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.

## SECTION VII • 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.

## SECTION VIII • LEAK, SPILL, MAINTENANCE/REPAIR AND DISPOSAL PROCEDURES

- 8.1 Small Spills: Wipe-up with absorbent material and contain.
- 8.2 Confine larger spills with absorbents like vermiculite and transfer to suitable containers for disposal.
- 8.3 Waste Disposal Methods: The product is not biodegradable and may be injurious to aquatic life if discharged into open waters. Urocare Products, Inc. Suggests that all local, state and federal regulations concerning health and pollution be reviewed to determine approved disposal procedures. Contact Urocare Products if there are any disposal questions.
- 8.4 Protective Equipment:
- 8.4.1 Eyes: Use proper protection—Safety glasses as a minimum.
- 8.4.2 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.
- 8.5 D.O.T. (49CFR 171.8)/E.P.A. (40CFR 117) Spill Reporting Information:
- 8.5.1 Hazardous Substance: Ethyl Acetate, CAS No. 141-78-6
- 8.5.2 Reportable Quantity: Not applicable when dispensed as directed or sold.

## SECTION IX • SPECIAL PROTECTION/EXPOSURE CONTROLS

- 9.1 Engineering Controls: For small amounts, adequate general ventilation; otherwise, a mechanical, local exhaust is recommended.
- 9.2 Personal Protection:
- 9.2.1 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.
- 9.2.2 Respiratory: No special requirements for small amounts. Large amounts an air supplied or self-contained respirator is suitable.
- 9.2.3 Eye Protection: Use proper protection—Safety glasses as a minimum.
- 9.2.4 Gloves: Rubber or plastic gloves are recommended.
- 9.2.5 Ingestion: Do not ingest.

## SECTION X • SPECIAL PRECAUTIONS

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10.1 Storage & Handling: Harmful if swallowed or inhaled. Causes skin and eye irritation. May cause dizziness, drowsiness or heart damage. Aspiration may cause lung damage. Keep away from open flame or other ignition sources. Store below 110° F (43.3° C). Use reasonable care and caution.

10.2 Other Precautions: Prevent moist air from entering storage. No smoking around vapors. Contact with aluminum parts in a pressurized fluid system may cause violent reactions.

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 “autoignition” 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 operating under vacuum if subjected to sudden ingress of air, or outside process equipment operating under elevated pressure if sudden escape of vapors or mists to 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.

## SECTION XI • ADDITIONAL REGULATORY COMPLIANCE INFORMATION

The concentrations shown are maximum or ceiling levels (weight %) to be used for calculations for regulations. Important: This information must be included in all MSDS that are copied and distributed for this product. Trade Secrets are indicated by "TS".

11.1 C.H.I.P. Regulations: Chemicals (Hazards Information and Packaging) Regulations 1993 requires 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:

MATERIAL	CAS NUMBER	UPPER BOUND CONCENTRATION
Ethyl Acetate	00141-78-6	100%

11.2 Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA): The Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA) requires notification of the National Response Center of release of quantities of Hazardous Substances equal to or greater than the reportable quantities (RQ's) in 40 CFR 302.4. Components present in this product at a level, which could require reporting under the statute, are:

MATERIAL	CAS NUMBER	UPPER BOUND CONCENTRATION
Ethyl Acetate	00141-78-6	100%

11.2 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:

MATERIAL	CAS NUMBER	UPPER BOUND CONCENTRATION
None	None	None

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:

MATERIAL	CAS NUMBER	UPPER BOUND CONCENTRATION
None	None	None

11.3 TSCA Inventory Status: The ingredients of this product are on or exempt from listing on the TSCA inventory.

11.4 OSHA Compliance: MSDS Prepared in accordance with OSHA 29 CFR 1910.1200 to comply with the Hazard Communication Standard.

11.5 RCRA Characteristics: Waste Classification: Product has not been evaluated for RCRA characteristics.

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11.6 State Right-To-Know Compliance:

11.6.1 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.

11.6.2 Massachusetts 105 CMR 670.000 Right-To-Know, Substance List (MSL): Hazardous substances and special hazardous substances on the list must be identified when present in products. Components present in this product at a level, which could require reporting under the statute, are:

MATERIAL	CAS NUMBER	UPPER BOUND CONCENTRATION
Ethyl Acetate	00141-78-6	100%

11.6.3 New Jersey Right-To-Know, Substance List (MSL): Hazardous substances and special hazardous substances on the list must be identified when present in products. Components present in this product at a level, which could require reporting under the statute, are:

MATERIAL	CAS NUMBER	UPPER BOUND CONCENTRATION
Ethyl Acetate	00141-78-6	100%

11.6.4 Pennsylvania Right-To-Know, Substance List (MSL): Hazardous substances and special hazardous substances on the list must be identified when present in products. Components present in this product at a level, which could require reporting under the statute, are:

MATERIAL	CAS NUMBER	UPPER BOUND CONCENTRATION
Ethyl Acetate	00141-78-6	100%

11.7 Other Regulatory Information: EPA Hazard Categories: Fire Hazard, Immediate Health Hazard, Delayed Health Hazard.

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 off 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.