Safety Data Sheet

1. Product and Company Identification

Product Name: **Ultralane® 713A**
Material Uses: Urethane Coating, Adhesive, & Potting Resin
(M)SDS#: 713A-20170626
Validation Date: June-26-2017
Supplier/Manufacturer: Specialty Polymers & Services, Inc. (SP&S, Inc.)
27822 Fremont Court
Valencia, California (CA) 91355, U.S.A.
Non-emergency phone number: (661) 294-1790 (7AM – 5PM PST)
E-mail: msds@spolymers.com

In case of emergency: Chemtrec (800) 424-9300 or (703) 527-3887

2. Hazards Identification

GHS CLASSIFICATION OF SUBSTANCE OR MIXTURE:

Skin sensitization:	Category 1, H317	Acute Toxicity (Inhalation)	Category 4, H332
Respiratory sensitization:	Category 1, H334	Carcinogenicity:	Category 2, H351

GHS LABEL ELEMENTS:

HAZARD SYMBOLS:

SIGNAL WORDS: Danger!

HAZARD STATEMENTS:

H317 May cause an allergic skin reaction
H332 Harmful if inhaled
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H351 Suspected of causing cancer

PRECAUTIONARY STATEMENTS:

PREVENTION:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
P271 Use only outdoors or in a well-ventilated area.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves, clothing, and eye/face protection.
P284 [In case of inadequate ventilation] wear respiratory protection.

RESPONSE:
P301+P330+P331+P312 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Call POISON CENTER and/or doctor if you feel unwell.
P303+P361+P364+P353+P352 IF ON SKIN (or hair): Take off immediately all contaminated clothing and wash before reuse. Rinse skin with water/shower. Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical attention.
P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P308+P313 IF exposed or concerned: Get medical attention.
P363 Wash contaminated clothing before reuse.

STORAGE:
P405 Store locked up.

DISPOSAL: P501 Dispose of contents and containers in accordance with local, regional and international regulations.

Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) – Annex III

See toxicological information (section 11)
General Information: Read entire MSDS for a more thorough evaluation of the hazards

3. Composition / Information on Ingredients

Name	CAS Number	%
Polyurethane castable prepolymer	Proprietary	95 - 97
m-Tolylidene diisocyanate (Toluene diisocyanate)	26471-62-5	1 - 5

Amounts specified are typical and do not represent a specification. Remaining components are proprietary, non-hazardous, and/or present at amounts below reportable limits.

4. First Aid Measures

Eye Contact: Check for and remove any contact lenses. Immediately flush eyes for at least 15 minutes with running water, occasionally lifting upper and lower eyelids. Hold eyelids apart to ensure rinsing of the entire eye surface and lids with water. Get immediate medical attention.

Skin Contact: In case of contact, wash affected areas with plenty of soap and water for several minutes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Wash contaminated clothing and shoes before re-use. Get medical attention if irritation occurs.

Inhalation: Move exposed person to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband. Get immediate medical attention.

Ingestion: Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If swallowed dilute by giving two (2) glasses water to drink. Do not induce vomiting until direct to do so by medical personnel. If vomiting occurs, the head should be kept low so that the vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get immediate medical attention. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband. Get medical in

Note to physician: No specific treatment. Treat symptomatically. Call poison control center if large quantities were ingested. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. In the event of any complaints or symptoms, avoid further exposure.

5. Fire-Fighting Measures

Flash point: 221.1°C (430.0°F) closed cup

Hazardous Thermal Decomposition Products: Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, hydrogen cyanide, isocyanate vapor

Extinguishing Media: Carbon dioxide, foam, dry chemical, water spray as suitable for the surrounding fire.

Special Exposure Hazards: Promptly isolate the scene by removing all persons from the vicinity of the fire. No actions shall be taken involving any personal risk or without suitable training. Move undamaged containers from immediate hazard area if it can be done safely. Do not inhale explosion and combustion gases. Burning produces heavy smoke.

Special Protective equipment for fire-fighters: Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear positive pressure self-contained breathing apparatus and personal protective equipments, such as jacket (standard: EN469), helmet (standard: EN443), gloves (standard: EN407), boots (standard: EN345-S3 HI WRU HRO).

6. Accidental Release Measures

Personal Precautions: No actions shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering area. Do not touch or walk through spilled material. Avoid breathing vapor or mist and provide adequate

ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental Precautions: Avoid dispersal of spilled material and runoff that leads to contact with soil, waterways, drains, and sewers. Inform the relevant authorities if the product has caused environmental pollution.

Methods of Clean Up: Stop leak if without risk. Move containers from spill area. Approach spill from up wind if possible. Prevent spill from entering sewers, rivers and other water courses, basements, or confined areas. Wash into effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material (e.g. sand, earth, vermiculite, or diatomaceous earth) and place in container for disposal according to local regulations. Dispose of only using a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see section 1 for emergency contact information.

7. Handling and Storage

Handling: Wear appropriate personal protective equipment (see Section 8) when handling. Avoid contact with skin and eyes, inhalation of vapors and mists. Eating, drinking, and smoking should be prohibited in areas where chemicals are handled, stored, or processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in processes where this material is used. Keep in the original container or a suitable alternate made from a compatible material. Keep all containers tightly closed when not in use. Empty containers retain product residue and should be disposed of properly. Do not reuse empty containers for other purposes or to hold other materials.

Storage: Store in accordance with local regulations. Store product in the original container at 15°C - 40°C, in a dry place. Keep away from incompatible materials (see Section 10) and food and drink. Keep all containers tightly closed when not in use and tightly re-seal after use. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

8. Exposure Controls / Personal Protection

Ingredient	Exposure Limits
m-Tolylidene diisocyanate	ACGIH – TWA: 0.005 ppm ACGIH – STEL: 0.020 ppm OSHA P0 – TWA: 0.005 ppm / 0.04 mg/m^3 OSHA P0 – STEL: 0.02 ppm / 0.15 mg/m^3 OSHA Z-1 – C: 0.02 ppm / 0.14 mg/m^3

Recommended Monitoring Procedures: If this product contains ingredients with exposure limits, personal, workplace, atmospheric, or biological monitoring may be required to determine the effectiveness of the ventilation system or other control measures and/or to determine whether it is necessary to use respiratory protective equipment. Consider European Standard EN 689 or similar industry or governmental guidelines for appropriate methods for the assessment of exposure by inhalation to chemical agents and/or hazardous substances.

Engineering measures: No special ventilation requirements are necessary for this product. Good general ventilation should be sufficient to control worker exposure to airborne contaminants. If this product contains ingredients with exposure limits, use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure below the recommended or statutory limits.

Hygiene measures: Wash hands, forearms, and face thoroughly after handling any chemical products, before eating, smoking, and using the lavatory and at the end of the work period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection

Respiratory: A respiratory protection program in compliance with 29CFR1910.134, or other applicable regulatory standard, such as European Standard EN529, must be followed whenever exposure limits may be exceeded. If engineering controls are not feasible, or if inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Hands: Wear neoprene, nitrile rubber or other suitable impervious gloves; consider European Standard EN374 or similar industry or governmental guidelines. Consider the parameters specified by the glove manufacture and check gloves during use to ensure they are retaining their protective properties.

	Gloves selected must have a breakthrough rating appropriate for the work shift. If a risk assessment indicates that it is necessary, gloves should always be worn when handling chemical products.
Eyes:	When a risk assessment indicates, safety eyewear complying with an approved standard, such as OSHA Standard 29CFR1910.133 or European Standard EN166, should be used to avoid exposure to liquid splashes, mists, or dusts. If contact is possible, at a minimum use chemical splash googles. If significant splash hazard may occur, consider using a full-face shield.
Skin:	Personal Protective equipment for the body should be selected based on the task being performed and the risks involved. Typical protective equipment includes non-absorbent lab coats, disposable protective sleeves, coats, or whole-body suits. Consider CFR1910.132 and CFR1910.136 for OSHA approved standards on protective clothing and footwear. Consider seeing a safety specialist to determine the appropriate level of protection for your task.
Environmental Exposure Controls:	Emissions from ventilation or work processes should be checked to ensure they comply with the requirements of environmental regulations. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

9. Physical and Chemical Properties

Appearance:	Clear light yellow to amber liquid	Odor	Slight
Boiling Point:	Not determined	Freezing Point:	Not determined
Flash Point:	221.1°C (430.0°F) closed cup	pH:	Not determined
Auto-ignition Temperature:	Not determined	Flammable Limits:	Not determined
Vapor Pressure:	Not determined	Water Solubility:	Reacts with water
Specific Gravity:	1.07	Vapor Density:	Not determined
Evaporation Rate:	<1 (butyl acetate =1)	VOC:	Not determined
Viscosity:	250 cPs (27°C)		

10. Stability and Reactivity

Chemical Stability:	This product is stable, under normal conditions of storage and use, hazardous reactions will not occur.
Hazardous Polymerization:	Under normal conditions of storage and use, hazardous polymerization will not occur.
Conditions to Avoid:	High temperatures and exposure to strong oxidizing agents, alcohols, and water.
Hazardous Decomposition	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological Information

Acute Toxicity

Product/Ingredient Name	Test	Endpoint	Species	Result
m-Tolylidene diisocyanate	-	LC50 Inhalation	Rat	66.0 ppm (1 hour)
	-	LD50 Dermal	Rabbit	10,000 mg/kg
	-	LD50 Oral	Rat	3,360 mg/kg

Irritation / Corrosion

Product/Ingredient Name	Test	Species	Result
m-Tolylidene diisocyanate	Skin Irritation	Rabbit	Severe skin irritation
	Eye Irritation/Corrosion	Rabbit	Risk of serious damage to eyes

Sensitizer

Product/Ingredient Name	Test	Species	Result
m-Tolylidene diisocyanate	Skin Sensitization	Guinea pig	Sensitizing
	Respiratory	-	Sensitizing

Mutagenicity

Product/Ingredient Name	Test	Result
No Data Available		

Conclusion/ Summary: No Data Available

Carcinogenicity

m-Tolylidene diisocyanate (Toluene diisocyanate) is classified by IARC as Group 2B (Possibly carcinogenic to humans). m-Tolylidene diisocyanate (Toluene diisocyanate) is classified as a carcinogen by NIOSH and NTP, but not OSHA.

No other components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC, ACGIH, NTP, or OSHA:

Reproductive Toxicity

Product/Ingredient Name	Test	Species	Maternal Toxicity	Fertility	Developmental Effects
m-Tolylidene diisocyanate	Inhalation (0.08 ppm)	Rat	No Observed adverse effects		

Teratogenicity

Product/Ingredient Name	Test	Species	Results
No Data Available			

Potential Acute Health Effects

Inhalation: Inhalation may cause allergy or asthma symptoms or breathing difficulties
Ingestion: No known significant effects or critical hazards.
Skin Contact: May causes skin irritation
Eye Contact: May cause irritation to the eyes.

Potential Chronic Health Effects

Product/Ingredient Name	Test	Endpoint	Species	Results
No Data Available				

General: Once sensitized, an allergic reaction may occur when subsequently exposed to very low levels
Target Organs: Respiratory tract – inhalation may cause allergy or asthma symptoms or breathing difficulties
Carcinogenicity: Suspected of causing cancer
Mutagenicity: No known significant effects or critical hazards
Teratogenicity: No known significant effects or critical hazards
Developmental Effects: No known significant effects or critical hazards
Fertility Effects: No known significant effects or critical hazards

12. Ecological Information

Environmental Effects: May cause aquatic toxicity or damage to the environment.

Aquatic Ecotoxicity

Product/Ingredient Name	Test	Endpoint	Exposure	Species	Result
m-Tolylidene diisocyanate	-	Acute LC50	96 hours	Fish	4,100 mg/l
	-	Acute LC100	96 hours	Fish	>250 mg/l
	-	Acute EC50	24 hours	Daphnia	750 mg/l
	-	Acute EC100	48 hours	Daphnia	100 mg/l
	-	Acute EC50	48 hours	Daphnia	12.5 mg/l
	-	Chronic NOEC	21 days	Daphnia	>0.5 mg/l
	-	Acute EC50	96 hours	Algae	4,300 mg/l
	-	Acute EC10	96 hours	Algae	2,000 mg/l

Persistence and Degradability

Product/Ingredient Name	Test	Period	Result
No Data Available			

Product/Ingredient Name	Aquatic half-life	Photolysis	Biodegradability
No Data Available			

Bioaccumulative potential

Product/Ingredient Name	Log P_{ow}	BCF	Potential
No Data Available			

Other adverse effects: No known significant effects or critical hazards
Other information: BOD5: Not determined COD: Not Determined TOC: Not determined

13. Disposal Consideration

Waste Disposal Method: Disposal of this products, solutions, and by-products should always comply with the requirements of environmental and waste disposal legislation and any regional or local authority requirements. Dispose of surplus, non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed on untreated to the sewer system unless this is complaint with all applicable laws and regulations. Incineration by an approved and licensed contractor is the most common disposal method. Packaging materials that and absorbents containing the product can typically be landfilled or incinerated. Contact local authorities to determine the proper means of disposal in your area.

14. Transport Information

DOT (US) Classification: Not regulated for transportation purposes under 49CFR when transported by motor vehicle, rail car, or aircraft.

TDG (Canadian) Classification: Not regulated for transportation purposes when transported by road or rail.

IATA (Air): Not regulated for transportation purposes.

IMDG (Ocean): Not regulated for transportation purposes.

15. REGULATORY INFORMATION

US Federal Regulations:

Occupational Safety and Health Act (OSHA): This product is a hazardous chemical under the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SARA Title III: Section 304 - CERCLA: This product contains one or more chemicals regulated under Section 304 as extremely hazardous substance(s) for emergency release notification ("CERCLA" List):

Ingredient	CAS #	Component RQ (lbs)	Calculated Product RQ (lbs)
m-Tolylidene diisocyanate	26471-62-5	100	3333

SARA Title III: Section 313 Toxic Chemical List (TCL): This product does contain one or more toxic chemical for routine annual Toxic Chemical Release Reporting under section 313 (40 CFR 372).

m-Tolylidene diisocyanate

TSCA Inventory: All the components are listed or exempted on the TSCA inventory.

TSCA Section 5(b) - Inventory Status: m-Tolylidene diisocyanate is listed.

TSCA Section 8(b) - Inventory Status: Polyurethane castable prepolymer is listed.

TSCA Section 12(b) - Export Notification: This product does not contain any chemicals which are subject to Section 12(b) export notification.

State Regulations:

California Proposition 65: This product does contain any chemicals currently on the California list of Known Carcinogens and Reproductive Toxins.

Ingredient	Cancer	Reproductive
m-Tolylidene diisocyanate	Yes	No

International Regulations:

REACH Status (EC 1907/2006): This material has been registered, pre-registered, or is otherwise exempt from registration under REACH.
REACH Annex XIV (SVHC): No listed components as of validation date
Reach Annex XVIII (Restrictions on the manufacture, placing on the market & use of certain dangerous substances, mixtures, and articles): No list components as of validation date

WHMIS: Class D-2A: Material causing other toxic effects (Very toxic).
Class D-2B: Material causing other toxic effects (Toxic).

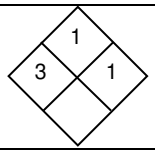
International Lists:

Canadian Inventory (CEPA-DSL): all components are listed or exempt
China Inventory (IECSC): On the inventory, or in compliance
Korea Inventory (ECL): On the inventory, or in compliance

16. OTHER INFORMATION

Hazardous Material Information System (HMIS) - USA	
Health	3
Flammability	1
Physical Hazards	1
Personal Protection	G*

National Fire Protection Association (USA):



*suggested minimum personal protection equipment. End user must determine appropriateness of these suggestions for their applications and usage conditions.

Reason Issued: update
Prepared By: Preston White **Approved By:** Chris Meyer Title: Vice President

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IN ALL CASES, IT IS THE RESPONSIBILITY OF THE USER TO DETERMINE THE APPLICABILITY OF SUCH INFORMATION AND RECOMMENDATIONS AND THE SUITABILITY OF PRODUCTS FOR THE USER'S PARTICULAR PURPOSE(S).

THIS PRODUCT MAY PRESENT HAZARDS AND SHOULD BE USED WITH CAUTION. WHILE CERTAIN HAZARDS ARE DESCRIBED IN THIS PUBLICATION, NO GUARANTEE IS MADE THAT THESE ARE THE ONLY HAZARDS THAT EXIST.

The product(s) has not been tested for, and is therefore not recommended for, uses for which prolonged contact with mucous membranes, abraded skin, or blood is intended; or for uses for which implantation within the human body is intended.