Safety Data Sheet

1. Product and Company Identification

Product Name: **Ultralane® 761**
Material Uses: Polyurethane Encapsulating, Sealing & Casting Hardener
(M)SDS#: 761-20200902
Validation Date: September-02-2020
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:

Specific Target Organ Toxicity - Repeated Exposure: Category 2, H373

GHS LABEL ELEMENTS:

HAZARD SYMBOLS:

SIGNAL WORDS: Warning!

HAZARD STATEMENTS:

H373 May cause damage to organs through prolonged or repeated exposure.

PRECAUTIONARY STATEMENTS:

PREVENTION: P260 Do not breathe vapor.

RESPONSE: P314 Get medical attention if you feel unwell.

STORAGE: None

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	%
1,4 butanediol	110-63-4	3 - 7

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. Hold

	eyelids apart to ensure rinsing of the entire eye surface and lids with water. Get medical attention following exposure or if feeling unwell.
Skin Contact:	In case of contact, wash affected areas with plenty of water, and soap, if available, for several minutes. Remove and clean contaminated clothing and shoes before re-use. Get medical attention if irritation occurs.
Inhalation:	Move exposed person to fresh air. Get medical attention if irritation occurs. If not breathing, give artificial respiration or oxygen. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If breathing is difficult, transport to medical care and, if available, give supplemental oxygen. Loosen tight clothing such as a collar, tie, belt, or waistband. Get immediate medical attention. 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.
Ingestion:	Wash out mouth with water. If swallowed dilute by giving two (2) glasses water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter lungs. Get medical attention following exposure or if feeling unwell. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
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.

5. Fire-Fighting Measures

Flash point:	>100°C (>212°F) closed cup
Hazardous Thermal Decomposition Products:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, and nitrogen oxides. During a fire, smoke may contain particles of the original material in addition to combustion. Exposure to decomposition products may be harmful to health.
Extinguishing Media:	Carbon dioxide, foam, dry chemical, water spray as suitable for the surrounding fire. Do not use high volume water jet on the fire as this may spread the area of the 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. Containers exposed to excessive heat may rupture.
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.

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. Do not breathe vapor or mist. Do not ingest. Avoid eye contact with eyes, skin and clothing. 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 in original containers, at 18°C – 40°C. 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. Empty containers retain product residue and can be hazardous. Do not reuse container.

8. Exposure Controls / Personal Protection

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 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:	Black, flowable liquid	Odor	Faint odor
Boiling Point:	>200°C (>392°F)	Freezing Point:	Not determined
Flash Point:	>100°C (>212°F) closed cup	pH:	Not determined
Auto-ignition Temperature:	Not determined	Flammable Limits:	Not determined
Vapor Pressure:	Not determined	Water Solubility:	Practically insoluble
Specific Gravity:	1.0 to 1.1 g/cm^3 (25°C (77°F)	Vapor Density:	Not determined
Evaporation Rate:	Not determined	VOC:	Not determined
Viscosity:	~2,000 to 4,500 cP		

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, acids, bases, and isocyanates. The reaction of polyols and isocyanates generates heat.
Hazardous Decomposition	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition products may include the following materials: carbon dioxide, carbon monoxide, and nitrogen oxides. During a fire, smoke may contain particles of the original material in addition to combustion. Exposure to decomposition products may be harmful to health.

11. Toxicological Information

Acute Toxicity

Product/Ingredient Name	Test	Endpoint	Species	Result
1,4 butanediol	-	LD50 Oral	Rat – Male, Female	1,500 mg/kg
	-	LD50 Dermal	Rat – Male, Female	> 2,000 mg/kg
	-	LC50 Inhalation Dusts and mists	Rat – Male, Female	> 5.1 mg/l
	-	LC50 Inhalation Dusts and mists	Rat – Male	> 15 mg/l

Irritation / Corrosion

Product/Ingredient Name	Test	Species	Result
1,4 butanediol	-	Rabbit	Skin – Non-irritant
	-	Rabbit	Eyes – Non-irritant

Sensitizer

Product/Ingredient Name	Test	Species	Result
1,4 butanediol	-	Guinea pig	Skin – not sensitizing

Mutagenicity

Product/Ingredient Name	Test	Result
1,4 butanediol	Experiment: In vitro; Mammalian-Animal; Metabolic activation +/-	Negative
	Experiment: In vitro; Mammalian-Animal; Metabolic activation +/-	Negative
	Experiment: In vitro; bacteria/yeast; Metabolic activation +/-	Negative

Conclusion/ Summary: the weight of evidence does not support classification as a germ cell mutagen.

Carcinogenicity

Product/Ingredient Name	Test	Species	Dose	Exposure	Result/Result type
1,4 butanediol	-	Rat-Female	225 mg/kg (oral)	103 weeks; 5 days per week	Negative-Oral-NOAEL

No component 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
1,4 butanediol	-	Rat - Male, Female	Negative	-	-

Teratogenicity

Product/Ingredient Name	Test	Species	Results
1,4 butanediol	-	Rat	Negative - Oral
	-	Rat	Negative - Oral

Potential Acute Health Effects

Inhalation:	Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Ingestion:	No known significant effects or critical hazards.
Skin Contact:	No known significant effects or critical hazards.
Eye Contact:	No known significant effects or critical hazards.

Potential Chronic Health Effects

Product/Ingredient Name	Test	Endpoint	Species	Results
1,4 butanediol	-	Sub-chronic NOAEL Oral	Rat – Male	225 mg/kg
	-	Sub-acute NOEC Inhalation Dusts and mists	Rat – Male	1100 mg/m^3

General:	Once sensitized, an allergic reaction may occur when subsequently exposed to very low levels
Target Organs:	May cause damage to organs through prolonged or repeated exposure.
Carcinogenicity:	No known significant effects or critical hazards

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: This product is not classified as environmentally hazardous; however, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Aquatic Ecotoxicity

Product/Ingredient Name	Test	Endpoint	Exposure	Species	Result
1,4 butanediol	OECD Test Guideline 202	Acute EC50	48 hours Static	Daphnia	813 mg/l
	DIN DIN 38412 part 9	Acute ErC50	72 hours Static	Algae	> 500 mg/l
	OECD Test Guideline 203	Acute LC50	96 hours Static	Fish	> 30,000 mg/l
	DIN DIN 38412 part 9	Chronic EC10	72 hours Static	Algae	76 mg/l
	-	Chronic EgC50	40 hours	Bacteria	15,536 mg/l
	OECD Test Guideline 211	Chronic NOEC	21 days	Daphnia	> 85 mg/l

Persistence and Degradability

Product/Ingredient Name	Test	Period	Result
1,4 butanediol	OECD Test Guideline 301C	14 days	93 – 96%

Product/Ingredient Name	Aquatic half-life	Photolysis	Biodegradability
1,4 butanediol	Fresh water days	-	Readily

Bioaccumulative potential

Product/Ingredient Name	Log P_{ow}	BCF	Potential
1,4 butanediol	-0.88	3.16	low

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 in non-bulk when transported by motor vehicle, rail car, or aircraft.

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

IATA: Not regulated for transportation purposes when transported by aircraft.

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 does not contain any chemicals regulated under Section 304 as extremely hazardous substance(s) for emergency release notification ("CERCLA" List).

SARA Title III: Section 311/312 - Hazard Communication Standard (HCS): Per the June 13, 2016 Federal Register notice, EPA harmonized the EPCRA 311/312 hazard categories with the 2012 OSHA hazard communication standard for classifying and labeling of chemicals (i.e. GHS). Please refer to section 2 of the SDS to identify the appropriate hazard categories for reporting purposes.

SARA Title III: Section 313 Toxic Chemical List (TCL): This product does not contain any toxic chemicals for routine annual Toxic Chemical Release Reporting under section 313 (40 CFR 372).

TSCA Section 8(b) - Inventory Status: All chemical(s) comprising this product are listed on the TSCA inventory.

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: ⚠ **WARNING:** This product can expose you to chemicals including Acrylonitrile, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

International Regulations:

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

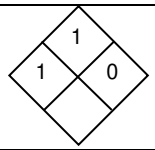
International Lists:

Australia Inventory (AICS):	all components are listed or exempt	Korea Inventory (ECL):	all components are listed or exempt
Canadian Inventory (CEPA-DSL):	all components are listed or exempt	Japan Inventory (ENCS):	all components are listed or exempt
China Inventory (IECSC):	all components are listed or exempt	Philippines Inventory (PICCS):	all components are listed or exempt

16. OTHER INFORMATION

Hazardous Material Information System (HMIS) - USA	
Health	1
Flammability	1
Physical Hazards	0
Personal Protection	C*

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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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.