

## SAFETY DATA SHEET

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### 1. IDENTIFICATION

**Product Name:** EBECRYL® 4827 radiation curing resins  
**Synonyms:** None  
**Product Description:** Aromatic urethane acrylate resin  
**Molecular Formula:** Not available  
**Molecular Weight:** Not available  
**Intended/Recommended Use:** Radiation curable coating ingredient

Allnex USA Inc., 9005 Westside Parkway, Alpharetta, Georgia 30009, USA

**For Product and all Non-Emergency Information call** your local Allnex contact point or contact us at <http://www.allnex.com/contact>

**EMERGENCY PHONE (24 hours/day) - For emergency only involving spill, leak, fire, exposure or accident call:**

+1-866-928-0789 (toll free) or +1-215-207-0061 (Carechem 24 - Allnex29003-NCEC)

See Section 16 for Emergency phone numbers for other regions.

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### 2. HAZARDS IDENTIFICATION

#### GHS Classification

Reproductive Toxicant Hazard Category 1B

#### LABEL ELEMENTS



#### Signal Word

DANGER

#### Hazard Statements

May damage fertility or the unborn child

#### Precautionary Statements

Obtain special instructions before use.

Wear protective gloves/protective clothing/eye protection/face protection.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local and national regulations.

**Hazards Not Otherwise Classified (HNOC), Other Hazards**

Polymerization may occur from excessive heat, contamination or exposure to direct sunlight.  
Contact with skin may cause a cross-allergic reaction in persons already sensitized to acrylates.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS****HAZARDOUS INGREDIENTS**

Component / CAS No.	%	GHS Classification
Dibutyltin dilaurate 77-58-7	< 0.2	Muta. 2 (H341) Repr. 1B (H360FD) STOT RE 1 (H372) STOT Single 1 (H370) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Skin Sens. 1B (H317) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)

The specific chemical identity and/or exact percentage of composition for one or more ingredients has been withheld as a trade secret.

Additional GHS classification or other information may be included in this section but has not been adopted by OSHA. See Section 16 for full text of H phrases.

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**4. FIRST AID MEASURES****First-aid Measures****Inhalation:**

Material is not expected to be harmful if inhaled. Remove to fresh air.

**Skin Contact:**

Wash immediately with plenty of water and soap.

**Eye Contact:**

Rinse immediately with plenty of water for at least 15 minutes.

**Ingestion:**

Material is not expected to be harmful by ingestion. No specific first aid measures are required.

**Most Important Symptoms and Effects, Acute and Delayed**

None known.

**Immediate Medical Attention and Special Treatment**

In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.

**Notes To Physician:**

No specific measures have been identified.

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**5. FIRE-FIGHTING MEASURES****Suitable Extinguishing Media:**

Use water spray or fog, carbon dioxide or dry chemical.

**Protective Equipment:**

Firefighters, and others exposed, wear self-contained breathing apparatus.

**Special Hazards:**

Keep containers cool by spraying with water if exposed to fire.

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Refer to Section 8 (Exposure Controls/Personal Protection) for appropriate personal protective equipment.

**Methods For Cleaning Up:**

Cover spills with some inert absorbent. Sweep up into containers for disposal. Flush spill area with water.

**Environmental Precautions:**

None known.

**References to other sections:**

See Sections 7, 8 and 13 for additional information.

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## 7. HANDLING AND STORAGE

**HANDLING**

**Precautions:** Wash hands thoroughly after handling.

**Special Handling Statements:** Avoid excessive heat, contamination or exposure to direct sunlight to prevent polymerization.

**STORAGE**

Store in a cool, dry, well ventilated place and keep container tightly closed. Keep away from heat sources and direct sunlight.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Measures:**

Engineering controls are not usually necessary if good hygiene practices are followed.

**Respiratory Protection:**

For operations where inhalation exposure can occur use an approved respirator. Recommendations are listed below. Other protective respiratory equipment may be used based on user's own risk assessment. Recommended respirators include those certified by NIOSH.

Recommended:

Full Face Mask with organic vapor cartridge, Type A filter (BP >65°C)

**Eye Protection:**

Wear eye/face protection.

**Skin Protection:**

Avoid skin contact. Wear impermeable gloves.

**Hand Protection:**

Nitrile rubber gloves. Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility etc) is noticed.

The chemical resistance depends on the type of product and amount of product on the glove. Therefore gloves need to be changed when in contact with chemicals.

**Additional Advice:**

Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water. It is recommended that a shower be taken after completion of workshift especially if significant contact has occurred. Work clothing should then be laundered prior to reuse. Street clothing should be stored separately from work clothing and protective equipment. Work clothing and shoes should not be taken home.

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**Exposure Limit(s)****77-58-7 Dibutyltin dilaurate**

OSHA (PEL):	0.1 mg/m <sup>3</sup> (TWA)
ACGIH (TLV):	0.2 mg/m <sup>3</sup> Sn (STEL) (skin)
	0.1 mg/m <sup>3</sup> Sn (TWA)
Other Value:	Not established

**Biological Exposure Limit(s)**

No values have been established.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Color:</b>	clear colorless to pale yellow
<b>Appearance:</b>	liquid
<b>Odor:</b>	acrylate
<b>Boiling Point:</b>	> 100 °C
<b>Melting Point:</b>	Not available
<b>Vapor Pressure:</b>	< 0.133 hPa @ 20 °C
<b>Specific Gravity/Density:</b>	1.11 g/cm <sup>3</sup>
<b>Vapor Density:</b>	Not available
<b>Percent Volatile (% by wt.):</b>	< 0.5 %
<b>pH:</b>	Not available
<b>Saturation In Air (% By Vol.):</b>	Not applicable
<b>Evaporation Rate:</b>	Not applicable
<b>Solubility In Water:</b>	Insoluble
<b>Volatile Organic Content:</b>	Not available
<b>Flash Point:</b>	> 100 °C Cleveland Open Cup
<b>Flammable Limits (% By Vol):</b>	Not applicable
<b>Autoignition Temperature:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Partition coefficient (n-octanol/water):</b>	Not available
<b>Odor Threshold:</b>	Not available
<b>Viscosity (Kinematic):</b>	Not available
<b>Viscosity (Dynamic):</b>	3700 - 4800 mPa.s @ 60 °C
<b>Explosive Properties:</b>	None.
<b>Oxidizing Properties:</b>	No

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**10. STABILITY AND REACTIVITY**

**Reactivity:** No information available

<b>Stability:</b>	Stable.
<b>Conditions To Avoid:</b>	Avoid exposure to strong UV sources. Avoid friction with temperature increase as result. Avoid direct contact with heat sources. Avoid temperatures higher than 60°C. Protect from direct sunlight. Avoid direct exposure to sunlight. Loss of dissolved air. Loss of polymerization inhibitor.
<b>Polymerization:</b>	May occur
<b>Conditions To Avoid:</b>	Avoid contact with vinyl polymerization initiators. Peroxides, free radical initiators, strong alkalies. Avoid contamination with metallic impurities and peroxides. Avoid loss of dissolved oxygen. Hazardous polymerization can occur when exposed to direct sunlight. Hazardous exothermic polymerization can occur when heated. Uncontrolled polymerization may cause rapid evolution of heat and increase in pressure that could result in violent rupture of sealed storage vessels or containers
<b>Materials To Avoid:</b>	Avoid contact with peroxides. Avoid contact with reactive metals. Avoid free radical producing initiators. Contact with alkalis. They give an exothermic reaction with the product. Unintentional contact with them should be avoided.
<b>Hazardous Decomposition Products:</b>	oxides of carbon hydrocarbons smoke soot

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## 11. TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure:** Skin, Eyes, Oral.

**Acute toxicity - oral:** Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

**Acute toxicity - dermal:** Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

**Acute toxicity - inhalation:** Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

**Skin corrosion / irritation:** Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

**Serious eye damage / eye irritation:** Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

**Respiratory sensitization:** Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

**Skin sensitization:** Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

**Carcinogenicity:** Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

**Germ cell mutagenicity:** Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

**Reproductive toxicity:** May damage fertility or the unborn child

**Specific target organ toxicity (STOT) - single exposure:** Not Classified. - Based on available data and/or professional judgment, the classification criteria are not met.

**Specific target organ toxicity (STOT) - repeated exposure:** Not Classified. - Based on available data and/or

professional judgment, the classification criteria are not met.

**Aspiration hazard:** Not Classified - Based on available data and/or professional judgment, the classification criteria are not met.

## PRODUCT TOXICITY INFORMATION

### ACUTE TOXICITY DATA

oral	rat	Acute LD50	> 5000 mg/kg
dermal	rabbit	Acute LD50	> 2000 mg/kg
inhalation	rat	Acute LC50 4 hr	8.5 mg/l (Dust/Mist)

### LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	dermal	Not irritating
Acute Irritation	eye	Not irritating

### ALLERGIC SENSITIZATION

Sensitization	Skin	No data
Sensitization	respiratory	No data

### GENOTOXICITY

#### Assays for Gene Mutations

Ames Salmonella Assay	No data
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### OTHER INFORMATION

The toxicity data above are the results from Allnex sponsored studies or from the available public literature. Contact with skin may cause a cross-allergic reaction in persons already sensitized to acrylates.

### HAZARDOUS INGREDIENT TOXICITY DATA

Based on literature and actual test data, dibutyltin dilaurate (DBTL) has acute oral LD50 values ranging from less than 2000 to >2000 mg/kg. The acute dermal LD50 (rat) is >2000 mg/kg. Dibutyltin dilaurate (DBTL) may cause severe skin irritation. This substance may cause skin sensitization (allergic skin reactions). Repeated oral administration of DBTL has caused liver damage and death in animals. Neurotoxicity has also been observed in animals after oral exposure. DBTL may impair fertility, may cause harm to the unborn child and is suspected of causing genetic defects. Tumour formation was not observed in a 2-year chronic study conducted with mice and rats with a structural analogue. Organotin compounds are suspected of causing immunosuppressant effects.

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## 12. ECOLOGICAL INFORMATION

### TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS

The ecological properties of this material have not been fully investigated.

**RESULTS OF PBT AND vPvB ASSESSMENT**

Not determined

**HAZARDOUS INGREDIENT TOXICITY DATA**

Component / CAS No.	Toxicity to Fish
Dibutyltin dilaurate (77-58-7)	LC50 = 2 mg/L - <i>Oryzias latipes</i> (48h) LC50 = 3.1 mg/L - <i>Brachydanio rerio</i> (zebrafish)

Component / CAS No.	Toxicity to Water Flea
Dibutyltin dilaurate (77-58-7)	EC50 = 0.463 mg/L - <i>Daphnia magna</i>

Component / CAS No.	Toxicity to Algae
Dibutyltin dilaurate (77-58-7)	EC50 = 1 mg/L - <i>Scenedesmus subspicatus</i> (algae)

Component / CAS No.	Partition coefficient
Dibutyltin dilaurate (77-58-7)	Log Kow = 4.44

**13. DISPOSAL CONSIDERATIONS**

The information on RCRA waste classification and disposal methodology provided below applies only to the product, as supplied. If the material has been altered or contaminated, or it has exceeded its recommended shelf life, the guidance may be inapplicable. Hazardous waste classification under federal regulations (40 CFR Part 261 et seq) is dependent upon whether a material is a RCRA "listed hazardous waste" or has any of the four RCRA "hazardous waste characteristics." Refer to 40 CFR Part 261.33 to determine if a given material to be disposed of is a RCRA "listed hazardous waste"; information contained in Section 15 of this SDS is not intended to indicate if the product is a "listed hazardous waste." RCRA Hazardous Waste Characteristics: There are four characteristics defined in 40 CFR Section 261.21-61.24: Ignitability, Corrosivity, Reactivity, and Toxicity. To determine Ignitability, see Section 9 of this SDS (flash point). For Corrosivity, see Sections 9 and 14 (pH and DOT corrosivity). For Reactivity, see Section 10 (incompatible materials). For Toxicity, see Section 3 (composition). Federal regulations are subject to change. State and local requirements, which may differ from or be more stringent than the federal regulations, may also apply to the classification of the material if it is to be disposed. The Company encourages the recycle, recovery and reuse of materials, where permitted, as an alternate to disposal as a waste. The Company recommends that organic materials classified as RCRA hazardous wastes be disposed of by thermal treatment or incineration at EPA approved facilities. The Company has provided the foregoing for information only; the person generating the waste is responsible for determining the waste classification and disposal method.

**14. TRANSPORT INFORMATION**

This section provides basic shipping classification information. Refer to appropriate transportation regulations for specific requirements.

**US DOT**

Dangerous Goods? Not applicable/Not regulated

**TRANSPORT CANADA**

Dangerous Goods? Not applicable/Not regulated

**ICAO / IATA**

Dangerous Goods? Not applicable/Not regulated

**IMO**

Dangerous Goods? Not applicable/Not regulated

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**15. REGULATORY INFORMATION****Inventory Information**

**United States (USA):** All components of this product are designated as “Active” on the TSCA Inventory or are not required to be listed.

**Canada:** All components of this product are included on the Domestic Substances List (DSL) or are not required to be listed on the DSL.

**European Economic Area (including EU):** When purchased and shipped from an Allnex legal entity based in the EEA (EU or Norway), this product is compliant with the registration of the REACH Regulation (EC) No. 1907/2006 as all its components are either excluded, exempt and/or registered.

**Australia:** All components of this product are included in the Australian Inventory of Chemical Substances (AICS) or are not required to be listed on AICS.

**New Zealand:** This product is approved or exempt under the Hazardous Substances and New Organisms (HSNO) Act.

**China:** All components of this product are included on the Chinese inventory or are not required to be listed on the Chinese inventory.

**Japan:** All components of this product are included on the Japanese (ENCS) inventory or are not required to be listed on the Japanese inventory.

**Korea:** All components of this product are included on the Korean (ECL) inventory or are not required to be listed on the Korean inventory. When purchased from Allnex Korea or Chemart distributor this product is compliant with the ARECs (the Act on the Registration and Evaluation, etc. of Chemical Substances). All its components are either excluded, exempt, pre-notified and/or registered. When purchased from another allnex entity, please contact PSRA-KREACH@allnex.com to check the possibility to be covered by our Only Representative.

**Philippines:** One or more components of this product are NOT included on the Philippine (PICCS) inventory.

**Taiwan:** All components of this product are included in the Taiwan chemical substance inventory or are not required to be listed on the Taiwan chemical substance inventory (TCSI).

**OTHER ENVIRONMENTAL INFORMATION**

The following components of this product may be subject to reporting requirements pursuant to Section 313 of CERCLA (40 CFR 372), Section 12(b) of TSCA, or may be subject to release reporting requirements (40 CFR 307, 40 CFR 311, etc.) See Section 13 for information on waste classification and waste disposal of this product.

This product does not contain any components regulated under these sections of the EPA



**PRODUCT HAZARD CATEGORY UNDER SECTIONS 311 AND 312 OF EPCRA****Physical Hazards**

Not applicable

**Health Hazards**

Reproductive toxicity

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**16. OTHER INFORMATION****NFPA Hazard Rating (National Fire Protection Association)**

Health: 0 - Materials that under emergency conditions, would offer no hazard beyond that of ordinary combustible materials.

Fire: 1 - Materials that must be preheated before ignition can occur.

Instability: 1 - Materials that in themselves are normally stable, but that can become unstable at elevated temperatures and pressures.

**Reasons for Issue:** Revised Section 15

**Date Prepared:** 06/21/2020

**Date of last significant revision:** 06/20/2020

**Component - Hazard Statements**

Dibutyltin dilaurate

H314 - Causes severe skin burns and eye damage.

H317 - May cause an allergic skin reaction.

H318 - Causes serious eye damage.

H341 - Suspected of causing genetic defects.

H360FD - May damage fertility. May damage the unborn child.

H370 - Causes damage to organs.

H372 - Causes damage to organs through prolonged or repeated exposure.

H400 - Very toxic to aquatic life.

H410 - Very toxic to aquatic life with long lasting effects.

**Emergency phone numbers for other regions****Asia Pacific**

Australia: +61 1800 022 037 (Allnex Australia)

China (PRC): +86(0)25 8547 7110 (Jiangsu registration center) / +86(0)532 8388 9090 (NRCC)

India: 000 800 100 7479 (toll free) or +65 3158 1198 (Carechem 24)

Indonesia: 007 803 011 0293 (Carechem 24)

Japan: +81 345 789 341 (Carechem 24)

Korea: +82 2 3479 8401 (Carechem 24)

Malaysia: +60 3 6207 4347 (Carechem 24)

New Zealand: +64 0800 803 002 (Allnex New Zealand)

Philippines: +63 2 231 2149 (Carechem 24)

Taiwan: +886 2 8793 3212 (Carechem 24)

Vietnam: +84 8 4458 2388 (Carechem 24)

All Others: +65 3158 1074 (Carechem 24)

**Europe**

+44 (0) 1235 239 670 (Carechem 24)

**Middle East, Africa**

+44 (0) 1235 239 671 (Carechem 24)

**Latin America**

Brazil: +55-800-707-7022 (toll free) or +55-11-98149-0850 (Suatrans 24)

Chile: +56 2 2582 9336 (Carechem 24)

Mexico and all others: +52-555-004-8763 (Carechem 24)

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Prepared By: Product Stewardship & Regulatory Affairs Department, <http://www.allnex.com/contact>

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