



SDS: 0056587  
Date Prepared: 01/30/2014

## SAFETY DATA SHEET

### 1. IDENTIFICATION

**Product Name:** EBECRYL® C2000B radiation curing resins  
**Synonyms:** None  
**Chemical Family:** Formulated Product  
**Molecular Formula:** Mixture  
**Molecular Weight:** Mixture  
**Intended/Recommended Use:** Coatings

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:**

**Asia Pacific:**

Australia: +61 2801 44558 (Carechem 24)  
China (PRC): +86(0)532-8388-9090 (NRCC)  
Japan: +81 345 789 341 (Carechem 24)  
New Zealand: +64 9929 1483 (Carechem 24)  
All Others: +65 3158 1074 (Carechem 24)

**Europe/Africa/Middle East (Carechem 24):**

Europe, Middle East, Africa, Israel: +44 (0) 1235 239 670  
Middle East, Africa (Arabic speaking countries): +44 (0) 1235 239 671

**Latin America (Carechem 24):**

Brazil: +55 113 711 9144  
Mexico and all others: +52-555-004-8763

**Canada and USA (Carechem 24 - Allnex29003-NCEC):** +1-866-928-0789 (toll free) or +1-215-207-0061

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### 2. HAZARDS IDENTIFICATION

**GHS Classification**

Skin Corrosion / Irritation Hazard Category 2  
Serious Eye Damage / Eye Irritation Hazard Category 2A  
Skin Sensitizer Hazard Category 1B  
Aquatic Environment Acute Hazard Category 3  
Aquatic Environment Chronic Hazard Category 3

**LABEL ELEMENTS**



**Signal Word**  
Warning

**Hazard Statements**

Causes skin irritation  
 Causes serious eye irritation  
 May cause an allergic skin reaction  
 Harmful to aquatic life with long lasting effects

**Precautionary Statements**

Wash face, hands and any exposed skin thoroughly after handling.  
 Wear protective gloves/protective clothing/eye protection/face protection.  
 Avoid breathing dust/fume/gas/mist/vapours/spray.  
 Contaminated work clothing should not be allowed out of the workplace.  
 Avoid release to the environment.  
 IF ON SKIN: Wash with plenty of soap and water.  
 Specific treatment (see supplemental first aid instructions on this label).  
 Take off all contaminated clothing and wash it before reuse.  
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical advice/attention.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 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.

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

Component / CAS No.	%	GHS Classification	Carcinogen
Acrylated polyol -	10 - 30	Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Skin Sens. 1B (H317)	-
Acrylate monomer -	10 - 30	Skin Irrit. 2 (H315) Eye Irrit. 2A (H319) Skin Sens. 1B (H317)	-
2,2-Dimethoxyphenylacetophenone 24650-42-8	0.1 - 1	Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	-
Epoxy acrylate -	50 - 60	Skin Sens. 1B (H317)	-

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.

**4. FIRST AID MEASURES****DESCRIPTION OF FIRST AID MEASURES****Eye Contact:**

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

**Skin Contact:**

Remove contaminated clothing and shoes without delay. Wash immediately with plenty of water. Do not reuse contaminated clothing without laundering. Get medical attention if pain or irritation persists after washing or if signs and symptoms of overexposure appear.

**Ingestion:**

If swallowed, call a physician immediately. Only induce vomiting at the instruction of a physician. Never give anything by mouth to an unconscious person.

**Inhalation:**

Remove to fresh air. If breathing is difficult, give oxygen. Obtain medical advice if there are persistent symptoms.

**MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED**

None known

**INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED**

Not applicable

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## 5. FIRE-FIGHTING MEASURES

**Suitable Extinguishing Media:**

Use water spray, alcohol foam, carbon dioxide or dry chemical to extinguish fires. Water stream may be ineffective.

**Extinguishing Media to Avoid:**

high pressure water jet.

**Protective Equipment:**

Firefighters, and others exposed, wear self-contained breathing apparatus. Wear full firefighting protective clothing. See MSDS Section 8 (Exposure Controls/Personal Protection).

**Special Hazards:**

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

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## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions:**

Where exposure level is not known, wear approved, positive pressure, self-contained respirator. Where exposure level is known, wear approved respirator suitable for level of exposure. In addition to the protective clothing/equipment in Section 8 (Exposure Controls/Personal Protection), wear impermeable boots.

**Methods For Cleaning Up:**

Remove sources of ignition. Cover spills with some inert absorbent material; sweep up and place in a waste disposal container. Flush spill area with water.

**References to other sections:**

See Sections 8 and 13 for additional information.

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## 7. HANDLING AND STORAGE

**HANDLING****Precautions:**

**Special Handling Statements:** Avoid direct sunlight, heat sources and sparks.

**STORAGE**

Containers which are opened must be carefully resealed and kept upright to prevent leakage. Prevent unauthorised access. Storage in stainless steel, amber glass, amber polyethylene or baked phenolic lined container. Keep containers tightly closed. Keep away from heat.

**Storage Temperature:** Store at 4 - 60 °C 39.2 - 140 °F

**Reason:** Safety.

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**8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Engineering Measures:**

Utilize a closed system process where feasible. Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure.

**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:**

Prevent eye and skin contact. Provide eye wash fountain and safety shower in close proximity to points of potential exposure. Wear eye/face protection such as chemical splash proof goggles or face shield.

**Skin Protection:**

Prevent contamination of skin or clothing when removing protective equipment. Wear impermeable gloves and suitable protective clothing.

**Hand Protection:**

Wear protective gloves. Recommendations are listed below. Other protective materials may be used based on user's own risk assessment. Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Replace gloves immediately when torn or any change in appearance (dimension, color, flexibility etc.) is noticed.

Gloves for short term exposure: Laminated multilayer gloves, break through time: > 60 min  
Nitrile rubber (NBR), thickness: > 0.56 mm, break through time: < 60 min

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.

Not suitable gloves: Latex gloves

Due to many conditions (e.g. temperature, abrasion) the practical usage of a chemical protective glove in practice may be much shorter than the permeation time determined through testing.

**Additional Advice:**

Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands thoroughly with soap and water.

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**Exposure Limit(s)**

No values have been established.

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**9. PHYSICAL AND CHEMICAL PROPERTIES**

**Color:** yellowish  
**Appearance:** liquid

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Odor:	ester acrylate		
Boiling Point:	>100 °C	212 °F	
Melting Point:	<0 °C	32 °F	
Vapor Pressure:	<0.0133hPa @ 20 °C		
Specific Gravity/Density:	1.12		
Vapor Density:	Not available		
Percent Volatile (% by wt.):	Not available		
pH:	Not available		
Saturation In Air (% By Vol.):	Not available		
Evaporation Rate:	Not available		
Solubility In Water:	slightly soluble		
Volatile Organic Content:	Not available		
Flash Point:	>100 °C	212 °F	Setaflash
Flammable Limits (% By Vol):	Not available		
Autoignition Temperature:	Not available		
Decomposition Temperature:	Not available		
Partition coefficient (n-octanol/water):	Not available		
Odor Threshold:	Not available		
Viscosity (Kinematic):	Not available		

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## 10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions To Avoid:	Avoid direct exposure to sunlight. Loss of dissolved air. Loss of polymerization inhibitor.
Polymerization:	May occur
Conditions To Avoid:	Avoid contact with oxidizing agents, free radical initiators, sunlight or ultraviolet light.
Materials To Avoid:	Polymerization initiators including peroxides, strong oxidizing agents, copper, copper alloys, carbon steel, iron, rust, and strong bases. Hazardous polymerization may occur. Uncontrolled polymerization may cause rapid evolution of heat and increase in pressure that could result in violent rupture of sealed storage vessels or containers.
Hazardous Decomposition Products:	oxides of carbon hydrocarbons phosphorus oxides (PxOy)

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## 11. TOXICOLOGICAL INFORMATION

### PRODUCT TOXICITY INFORMATION

Likely Routes of Exposure: Skin, Eyes, Oral.

#### ACUTE TOXICITY DATA

oral	rat	Acute LD50	>2000 mg/kg
dermal	rabbit	Acute LD50	>2000 mg/kg
inhalation	rat	Acute LC50 4 hr	No data

#### LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	dermal	rabbit	Irritating
Acute Irritation	eye	rabbit	Irritating

**ALLERGIC SENSITIZATION**

Sensitization	dermal	Sensitizing
Sensitization	inhalation	No data

**GENOTOXICITY****Assays for Gene Mutations**

Ames Salmonella Assay	No data
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**OTHER INFORMATION**

The product toxicity information above has been estimated.

The toxicological properties of this material have not been fully determined.

Prolonged or repeated contact with skin or mucous membrane may result in irritation symptoms such as redness, blistering, dermatitis, etc.

The inhalation of airborne droplets or aerosols may cause irritation of the respiratory tract.

**HAZARDOUS INGREDIENT TOXICITY DATA**

Acrylated polyol has an estimated oral (rat) and dermal (rabbit) LD50 values of >2000 mg/kg and 3600 mg/kg, respectively. This material causes moderate skin and eye irritation. Prolonged and repeated skin contact may cause allergic skin reaction. No evidence of point mutations in the Salmonella bacterial test was observed. Structurally similar acrylate and methacrylate substances showed no evidence of point mutation in the in vitro hprt mutation assay and no evidence of a mutagenic effect was seen when tested in whole animal chromosomal aberration and/or micronucleus assays. In contrast this substance as well as the entire acrylate/methacrylate chemical class produced a consistently positive response when tested in the mouse lymphoma assay and/or other in vitro mammalian cell assays designed to detect clastogenicity. However, the biological relevance of this in vitro response is questioned as these results could not be confirmed in tests on whole mammalian systems. This substance has been shown to cause fetotoxic effects during animal testing only in the presence of maternal toxicity.

Acrylate monomer has an acute oral (rat) LD50 and acute dermal (rabbit) LD50 values of > 5000 mg/kg and > 2000 mg/kg, respectively. Direct contact with this material may cause moderate eye and skin irritation. Repeated or prolonged skin contact may cause allergic skin reactions.

2,2-Dimethoxyphenyl acetophenone has acute oral (rat) LD50 and acute dermal (rat) LD50 values of > 6000 mg/kg and >7000 mg/kg, respectively. This material is a photosensitizer and may cause a photoallergic reaction.

The toxicological properties of epoxy acrylate have not been fully investigated. The LD50 oral (rat) and LD 50 dermal (rabbit) are estimated to be > 2000 mg/kg and > 2000 mg/kg, respectively. It is not expected to cause eye or skin irritation. Repeated or prolonged skin contact may cause allergic skin reactions.

**12. ECOLOGICAL INFORMATION****TOXICITY, PERSISTENCE AND DEGRADABILITY, BIOACCUMULATIVE POTENTIAL, MOBILITY IN SOIL, OTHER ADVERSE EFFECTS**

**Overall Environmental Toxicity:** Harmful to aquatic life. Harmful to aquatic life with long lasting effects.

The ecological assessment for this material is based on an evaluation of its components.

**RESULTS OF PBT AND vPvB ASSESSMENT**

Not determined

**HAZARDOUS INGREDIENT TOXICITY DATA**

Component / CAS No.	Toxicity to Algae	Toxicity to Fish	Toxicity to Water Flea
Acrylated polyol -	Not available	Not available	Not available
Acrylate monomer -	Not available	Not available	Not available
2,2-Dimethoxyphenylacetophenone 24650-42-8	EC 50 = 0.17 mg/l - Green Algae (Scenedesmus subspicatus) (72h)	LC 50 = 6 mg/ - Fathead Minnow (Pimephales promelas) (96h)	EC 50 = 26 mg/l - Water Flea (Daphnia magna) (24h)
Epoxy acrylate -	Not available	Not available	Not available

**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 MSDS 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 MSDS (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 included on the TSCA Chemical Inventory or are not required to be listed on the TSCA Chemical Inventory.

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

**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.

**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.

**Philippines:** All components of this product are included on the Philippine (PICCS) inventory or are not required to be listed on the Philippine inventory.

### 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 CLASSIFICATION UNDER SECTION 311 OF SARA

- Acute
  - Reactivity
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## 16. OTHER INFORMATION

### NFPA Hazard Rating (National Fire Protection Association)

Health: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

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:** Company address changed

**Date Prepared:** 01/30/2014



**Date of last significant revision:** 04/03/2013

**Component Hazard Phrases**

Acrylated polyol

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

Acrylate monomer

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

2,2-Dimethoxyphenylacetophenone

H400 - Very toxic to aquatic life.

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

Epoxy acrylate

H317 - May cause an allergic skin reaction.

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

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