



SDS: 0018249  
Date Prepared: 01/08/2018

## SAFETY DATA SHEET

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### 1. IDENTIFICATION

**Product Name:** EBECRYL® 3420 radiation curing resins  
**Synonyms:** None  
**Product Description:** Epoxy acrylate resin  
**Molecular Formula:** Mixture  
**Molecular Weight:** Mixture  
**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:**

**Asia Pacific:**

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China (PRC): +86(0)532-8388-9090 (NRCC)  
Japan: +81 345 789 341 (Carechem 24)  
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Korea: +82 2 3479 8401 (Carechem 24)  
Malaysia: +60 3 6207 4347 (Carechem 24)  
Philippines: +63 2 231 2149 (Carechem 24)  
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Europe, Middle East, Africa, Israel: +44 (0) 1235 239 670  
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Brazil: +55-800-707-7022 (toll free) or +55-11-98149-0850 (Suatrans 24)  
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### 2. HAZARDS IDENTIFICATION

**GHS Classification**

Serious Eye Damage / Eye Irritation Hazard Category 2A  
Skin Sensitizer Hazard Category 1B

**LABEL ELEMENTS**



**Signal Word**  
WARNING

**Hazard Statements**

Causes serious eye irritation  
May cause an allergic skin reaction

**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.  
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 ON SKIN: Wash with plenty of soap and water.  
If skin irritation or rash occurs: Get medical advice/attention.  
Specific treatment (see supplemental first aid instructions on this label).  
Wash contaminated clothing before reuse.  
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.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**HAZARDOUS INGREDIENTS**

Component / CAS No.	%	GHS Classification	Carcinogen
Ethoxylated trimethylolpropane triacrylate 28961-43-5	10 - 19	Eye Irrit. 2A (H319) Skin Sens. 1B (H317)	-
Epoxy acrylate -	65 - 75	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.

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### 4. FIRST AID MEASURES

**First-aid Measures**

**Inhalation:**

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

**Skin Contact:**

Wash immediately with plenty of water and soap. Remove contaminated clothing and shoes without delay. Obtain medical attention. Do not reuse contaminated clothing without laundering. Destroy or thoroughly clean shoes before reuse.

**Eye Contact:**

Rinse immediately with plenty of water for at least 15 minutes. Obtain medical advice if there are persistent symptoms.

**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.

**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:**

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:**

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. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves and eye/face protection.

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

polymerization.

## STORAGE

Prevent unauthorised access. Keep away from sources of ignition. Keep away from oxidizing agents, from alkaline and acid materials. Container which are opened must be carefully resealed and kept upright to prevent leakage. Protect from direct sunlight. This might cause uncontrollable polymerization of the product with generation of heat. Storage in stainless steel, amber glass, amber polyethylene or baked phenolic lined container.

**Storage Temperature:** Store at 4 - 40 °C 39.2 - 104 °F

**Reason:** Quality.

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## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Engineering Measures:

Where this material is not used in a closed system, good enclosure and local exhaust ventilation should be provided to control exposure when spraying or curing at elevated temperatures.

### 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 and suitable protective clothing. Barrier creams may be used in conjunction with the gloves to provide additional skin protection.

### 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 repeated or prolonged exposure - non exhaustive list:

Nitrile rubber (NBR), thickness: > 0.56 mm, break through time: up to 480 min

#### Gloves for short term exposure/splash protection - non exhaustive list:

Nitrile rubber (NBR), thickness: 0.1 mm, break through time: up to 30 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 - non exhaustive list:

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.

### Biological Exposure Limit(s)

No values have been established.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Color:</b>	clear 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>	< 1.33 hPa @ 20 °C
<b>Specific Gravity/Density:</b>	> 1 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 available
<b>Evaporation Rate:</b>	Not available
<b>Solubility In Water:</b>	Insoluble
<b>Volatile Organic Content:</b>	Not available
<b>Flash Point:</b>	> 100 °C 212 °F Setafash Closed 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>	Viscous liquid

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## 10. STABILITY AND REACTIVITY

**Reactivity:** No information available

**Stability:** Stable

**Conditions To Avoid:** Avoid direct exposure to sunlight. Avoid temperatures higher than 60°C. Avoid friction with temperature increase as result. Avoid exposure to strong UV sources. Loss of dissolved air. Loss of polymerization inhibitor. Avoid direct contact with heat sources. Protect from direct sunlight.

**Polymerization:** May occur

**Conditions To Avoid:** 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 polymerization can occur when exposed to direct sunlight. Hazardous exothermic polymerization can occur when heated.

**Materials To Avoid:** Avoid contact with peroxides.  
Copper, copper alloys, carbon steel, iron and rust.  
Avoid contact with acids and alkali's.  
Avoid free radical producing initiators.

Avoid contact with reactive metals.  
They give an exothermic reaction with the product.  
Unintentional contact with them should be avoided.

**Hazardous Decomposition Products:** oxides of carbon

## 11. TOXICOLOGICAL INFORMATION

**Likely Routes of Exposure:** Eyes, Skin, 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:** Causes serious eye irritation

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

**Skin sensitization:** May cause an allergic skin reaction

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

**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	> 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	Not irritating
Acute Irritation	eye	Irritating

### ALLERGIC SENSITIZATION

Sensitization	Skin	Sensitizing
Sensitization	respiratory	No data

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

Ames Salmonella Assay

No data

**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**

Ethoxylated trimethylolpropane triacrylate has an acute dermal (rabbit) LD50 value of > 13 g/kg. Direct contact with this material may cause moderate eye and minimal skin irritation. Repeated or prolonged skin contact may cause allergic skin reactions. Results from in vitro mutagenicity tests are mixed. This substance was not mutagenic in the Ames Salmonella Assay, however, it was mutagenic in various cell culture systems (i.e. Mouse lymphoma Assay). An in vivo mouse micronucleus study, designed to assess the clastogenic potential in whole animals, was negative for mutagenicity. Therefore, based on a weight-of-the-evidence approach, this material is considered non-mutagenic.

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.

California Proposition 65 Warning (applicable in California only) - This product contains (a) chemical(s) known to the State of California to cause birth defects or other reproductive harm.

**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.

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

This material is not classified as dangerous for the environment.

**RESULTS OF PBT AND vPvB ASSESSMENT**

Not determined

**HAZARDOUS INGREDIENT TOXICITY DATA**

Component / CAS No.	Toxicity to Fish
Ethoxylated trimethylolpropane triacrylate (28961-43-5)	LC50 = 1.95 mg/l - Zebra Fish (Brachydanio rerio) (96h)

Epoxy acrylate (-)	Not available
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Component / CAS No.	Toxicity to Water Flea
Ethoxylated trimethylolpropane triacrylate (28961-43-5)	EC50 70.7 mg/L - Daphnia magna (48h)
Epoxy acrylate (-)	Not available

Component / CAS No.	Toxicity to Algae
Ethoxylated trimethylolpropane triacrylate (28961-43-5)	ErC50 = 2.2 mg/l - Green Algae (Desmodesmus subspicatus) (72h)
Epoxy acrylate (-)	Not available

Component / CAS No.	Partition coefficient
Ethoxylated trimethylolpropane triacrylate (28961-43-5)	Not available
Epoxy acrylate (-)	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 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

**SPECIAL PRECAUTIONS FOR USER**

Protect against external heat sources above +40°C/104°F.

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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:** One or more components of this product are NOT included on the Canadian Domestic Substances List (DSL). These components are included on the Canadian Non-Domestic Substances List (NDSL).

**European Economic Area (including EU):** When purchased 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, pre-registered and/or registered.

**Australia:** One or more components of this product have NOT yet been included in the Australian Inventory of Chemical Substances (AICS) or assessed by NICNAS.

**China:** One or more components of this product are NOT included on the Chinese (IECSC) inventory. The company has obtained the required notification approvals from the Ministry of Environmental Protection (MEP) as per the "Environmental Administrative Measures for New Chemical Substance" for the component(s) not listed in the Chinese Inventory (IECSC). The product can be imported/manufactured in China ONLY under specific conditions.

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

**Korea:** One or more components of this product are NOT included on the Korean (ECL) inventory.

**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).

**Switzerland:** All components of this product are exempt from the new substance notification requirements for Switzerland (SR 813.11 art. 24-26).

**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**

Respiratory or Skin Sensitization

Serious eye damage or eye irritation

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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: 0 - Materials that in themselves are normally stable, even under fire exposure conditions.

**Reasons For Issue:** Revised Section 15

**Date Prepared:** 01/08/2018

**Date of last significant revision:** 02/18/2016

### Component - Hazard Statements

Ethoxylated trimethylolpropane triacrylate

H317 - May cause an allergic skin reaction.

H319 - Causes serious eye irritation.

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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