

SDS: 0018232

Date Prepared: 08/25/2018

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name: EBECRYL® 3200 radiation curing resins

Synonyms: None

Product Description: Epoxy acrylate resin

Molecular Formula: Mixture Molecular Weight: Mixture

Intended/Recommended Use: Radiation curable coating ingredient

Uses advised against: Not available

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 2 Skin Corrosion / Irritation Hazard Category 2 Skin Sensitizer Hazard Category 1B Aquatic Environment Acute Hazard Category 1 Aquatic Environment Chronic Hazard Category 1

LABEL ELEMENTS



Signal Word WARNING

Hazard Statements

Suspected of damaging fertility or the unborn child Causes skin irritation
May cause an allergic skin reaction
Very toxic to aquatic life

Very toxic to aquatic life with long lasting effects

Precautionary Statements

Obtain special instructions before use.

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

Wash face, hands and any exposed skin thoroughly after handling.

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 exposed or concerned: Get medical advice/attention.

IF ON SKIN: Wash with plenty of soap and water.

Specific treatment (see supplemental first aid instructions on this label).

Take off contaminated clothing and wash it before reuse.

If skin irritation or rash occurs: Get medical advice/attention.

Collect spillage. 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.

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

Component / CAS No.	%	GHS Classification	Carcinogen
Epoxy acrylate	55 - 65	Skin Sens. 1B (H317)	-
-			
Acrylated (long-chainalkyl) glycidal ether	35 - 45	Repr. 2 (H361f)	-
-		Skin Irrit. 2 (H315)	
		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.

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.

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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.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

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

Unsuitable Extinguishing Media:

high pressure water jet.

Protective Equipment:

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

Special Hazards:

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

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 material; sweep up and place in a waste disposal container. Flush spill area with water.

Environmental Precautions:

Use appropriate containment to avoid environmental contamination. Avoid release to the environment.

References to other sections:

See Sections 7, 8 and 13 for additional information.

7. HANDLING AND STORAGE

HANDLING

Precautions: Avoid release to the environment. Wash hands thoroughly after handling. Wear protective gloves. Contaminated work clothing should not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Special Handling Statements: Provide good ventilation of working area (local exhaust ventilation if necessary). During processing and handling of the product, comply with the indicative occupational exposure limit values. Avoid excessive heat, contamination or exposure to direct sunlight to prevent polymerization.

STORAGE

Keep product away from heat, ignition sources, direct sunlight, oxidizing agents, acid chlorides, and acid anhydrides.

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Storage Temperature: Room temperature

Reason: Quality.

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 such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure.

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. Use PE gloves as under gloves for difficult situations like for instance: high exposure, unknown composition or unknown properties of the chemicals.

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. 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.

No values have been established.

Biological Exposure Limit(s)

No values have been established.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color: green

Appearance: clear viscous liquid

Odor:acrylateBoiling Point:> 100 °CMelting Point:Not available

Vapor Pressure: 0.013 hPa @ 20 °C

Specific Gravity/Density:

Vapor Density:

Percent Volatile (% by wt.):

pH:

Saturation In Air (% By Vol.):

Evaporation Rate:

1.1 g/cm³

Not available

< 0.5 %

Not available

Not available

Evaporation Rate: Not available Solubility In Water: Not available Volatile Organic Content: Not available

Flash Point: > 100 °C Cleveland Open Cup

Flammable Limits (% By Vol):
Autoignition Temperature:
Decomposition Temperature:
Not available
Not available
Not available

(n-octanol/water):

Odor Threshold: Not available Viscosity (Kinematic): Not applicable

Viscosity (Dynamic): 1500 - 3000 mPa.s @ 25 °C

Explosive Properties: None.

Oxidizing Properties: Not available

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. Loss of dissolved air. Loss of

polymerization inhibitor. Avoid direct contact with heat sources. Protect from direct

sunlight.

Polymerization: May occur

Materials To Avoid: Avoid free radical producing initiators.

Avoid sources of free radicals, peroxides and metal ions.

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.

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Hazardous Decomposition Products:

Hazardous polymerization can occur when exposed to direct sunlight.

Hazardous exothermic polymerization can occur when heated.

oxides of carbon hydrocarbons

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.

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

Skin corrosion / irritation: Causes skin irritation

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: 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: Suspected of damaging 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	>	2000 mg/kg
dermal	rabbit	Acute LD50	>	2000 mg/kg
inhalation	rat	Acute LC50 4 hr	>	5 mg/l (Dust/Mist)

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation Skin rabbit Irritating
Acute Irritation eye rabbit Not 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.

11. TOXICOLOGICAL INFORMATION

HAZARDOUS INGREDIENT TOXICITY DATA

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.

Acrylated (long-chainalkyl) glycidal ether has acute oral (rat) and acute dermal (rabbit) LD50 values of > 2000 mg/kg, respectively. Primary eye and skin irritation studies in rabbits produced minimal eye irritation and moderate skin irritation (Kay and Calandra scale for eye; Draize scale for skin). In a guinea pig maximization test, this material caused skin sensitization in all animals. This material was studied in a 28-day repeated dose oral (gavage) toxicity study in rats at doses of 15, 150 and 1000 mg/kg/day. Males treated with 1000 mg/kg/d showed substantial testicular atrophy and decreased sperm counts. The "No Observed Effect Level" (NOEL) was considered to be 150 mg/kg/day. This material was nonmutagenic in the Ames Assay. It was mildly positive in a Chromosomal Aberration Test in Human Lymphocytes in vitro. Among the chemical class of acrylates, it is not uncommon for in vitro clastogenicity assays to be positive while Ames assays, in vivo micronucleus tests and rodent carcinogenicity assays are negative.



WARNING: Reproductive Harm – www.P65Warnings.ca.gov

12. ECOLOGICAL INFORMATION

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

Overall Environmental Toxicity: Very toxic to aquatic life. Very toxic 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 Fish
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Epoxy acrylate (-)	Not available
Acrylated (long-chainalkyl) glycidal	Not available
ether (-)	

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Component / CAS No.	Toxicity to Water Flea
Epoxy acrylate (-)	Not available
Acrylated (long-chainalkyl) glycidal	Not available
ether (-)	

Component / CAS No.	Toxicity to Algae
Epoxy acrylate (-)	Not available
Acrylated (long-chainalkyl) glycidal	Not available
ether (-)	

Component / CAS No.	Partition coefficient
Epoxy acrylate (-)	Not available
Acrylated (long-chainalkyl) glycidal	Not available
ether (-)	

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? X

PROPER SHIPPING NAME: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Hazard Class: 9
Packing Group: III
UN/ID Number: UN3082

Transport Label Required: Marine Pollutant Miscellaneous

Marine Pollutant

TECHNICAL NAME (N.O.S.): ACRYLATED (LONG-CHAINALKYL) GLYCIDYL ETHER

Comments: Marine Pollutants - DOT requirements specific to Marine Pollutants do not apply to

non-bulk packagings transported by motor vehicles, rail cars or aircraft.

TRANSPORT CANADA

Dangerous Goods? X

PROPER SHIPPING NAME: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

SDS: 0018232

Hazard Class: 9 Packing Group: III UN Number: UN3082

Transport Label Required: Marine Pollutant Miscellaneous

Marine Pollutant

TECHNICAL NAME (N.O.S.): ACRYLATED (LONG-CHAINALKYL) GLYCIDYL ETHER

ICAO / IATA

Dangerous Goods? X

UN PROPER SHIPPING NAME: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport Hazard Class: 9
Packing Group: III
UN Number: UN3082

Transport Label Required: Miscellaneous

TECHNICAL NAME (N.O.S.): ACRYLATED (LONG-CHAINALKYL) GLYCIDYL ETHER

IMO

Dangerous Goods? X

UN PROPER SHIPPING NAME: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Transport Hazard Class: 9 UN Number: UN3082 Packing Group: III

Transport Label Required: Marine Pollutant

Miscellaneous

Marine Pollutant

TECHNICAL NAME (N.O.S.): ACRYLATED (LONG-CHAINALKYL) GLYCIDYL ETHER

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.

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 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.

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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: 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).

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 Skin Corrosion or Irritation Respiratory or Skin Sensitization

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: Revised Section 11

Date Prepared: 08/25/2018 **Date of last significant revision:** 06/10/2016

Component - Hazard Statements

Epoxy acrylate

H317 - May cause an allergic skin reaction.

Acrylated (long-chainalkyl) glycidal ether

H315 - Causes skin irritation.

H317 - May cause an allergic skin reaction.

H400 - Very toxic to aquatic life.

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

H361f - Suspected of damaging fertility.

Date Prepared: 08/25/2018

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)

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

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