SDS: 0082930
Date Prepared: 04/22/2025

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name:	**EBECRYL® MAES radiation curing resins**
Synonyms:	None
Product Description:	Acrylic ester used as adhesion promoter
Molecular Formula:	mixture
Molecular Weight:	Mixture
Intended/Recommended Use:	Adhesive, Monomer for polymerization
Uses advised against:	This product should not be used in any application where unreacted liquid product is intended to come in direct contact with skin or nails. Reason: sensitizing properties.

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.

2. HAZARDS IDENTIFICATION

GHS Classification
Acute Toxicity (Oral) Hazard Category 4
Specific Target Organ Toxicity - Single Exposure Hazard Category 3
Skin Corrosion / Irritation Hazard Category 1C
Serious Eye Damage / Eye Irritation Hazard Category 1
Skin Sensitization Hazard Category 1A
Respiratory Sensitization Hazard Category 1
Aquatic Environment Acute Hazard Category 3

LABEL ELEMENTS

Signal Word
WARNING

Hazard Statements
Harmful if swallowed

May cause respiratory irritation
Causes severe skin burns and eye damage
Causes serious eye damage
May cause an allergic skin reaction
May cause allergy or asthma symptoms or breathing difficulties if inhaled
Harmful to aquatic life

Precautionary Statements
Wash face, hands and any exposed skin thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
Wear respiratory protection.
Contaminated work clothing should not be allowed out of the workplace.
Avoid release to the environment.
IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.
Immediately call a POISON CENTER or doctor/physician.
Specific treatment (see supplemental first aid instructions on this label).
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Dispose of contents/container in accordance with local and national regulations.

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

---

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

Component / CAS No.	%	GHS Classification
Butanedioic acid, 1-[2-[(1-oxo-2-propen-1-yl)oxy]ethyl] ester 50940-49-3	95 - 99	Acute Tox. 4 (H302) STOT Single 3 (H335) Skin Corr. 1C (H314) Eye Dam. 1 (H318) Skin Sens. 1 (H317) Resp. Sens. 1 (H334) Aquatic Acute 3 (H402)
Maleic anhydride 108-31-6	< 0.009	Acute Tox. 4 (H302) STOT RE 1 (H372) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Resp. Sens. 1 (H334) Skin Sens. 1A (H317) Aquatic Acute 3 (H402)

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. Apply artificial respiration if patient is not breathing. Obtain medical attention immediately.

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 attention immediately.

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
Not applicable.

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:
full 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:
Avoid release to the environment.

References to other sections:
See Sections 7, 8 and 13 for additional information.

7. HANDLING AND STORAGE

HANDLING

Precautions: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves/clothing and eye/face protection. In case of inadequate ventilation wear respiratory protection. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Use only outdoors or in a well-ventilated area. Do not breathe vapors or spray mist.

Special Handling Statements: Avoid excessive heat, contamination or exposure to direct sunlight to prevent polymerization. During processing and handling of the product, comply with the indicative occupational exposure limit values.

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

20 - 40 °C 68 - 104 °F

Reason: Quality.

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 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. A full facepiece respirator also provides eye and face protection. Cutting, grinding or sanding of parts fabricated after curing may create respirable dust particles. Respiratory protection appropriate for this dust may be required. Refer to components listed above for potential hazardous components in the dust.
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. Barrier creams may be used in conjunction with the gloves to provide additional skin protection. 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/splash protection - non exhaustive list:
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 - 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.

Exposure Limit(s)

108-31-6 Maleic anhydride

OSHA (PEL):	0.25 ppm (TWA)
	1 mg/m³ (TWA)
ACGIH (TLV):	0.01 mg/m³ inhalable fraction and vapor (TWA)
Other Value:	Not established

Biological Exposure Limit(s)

No values have been established.

9. PHYSICAL AND CHEMICAL PROPERTIES

Color:	clear pale yellow
Appearance:	low viscosity liquid
Odor:	characteristic acrylate
Boiling Point:	Decomposition prior to boiling
Melting Point:	~ - 17 Not available
Vapor Pressure:	~ 0.005 Pa @ 25 °C Not available
Specific Gravity/Density:	~ 1.23 g/cm³ @ 20 °C
Vapor Density:	Not available
Percent Volatile (% by wt.):	Not available
pH:	Not available
Saturation In Air (% By Vol.):	Not available
Evaporation Rate:	Non-volatile
Solubility In Water:	162 g/L @ 20 °C
Volatile Organic Content:	Not available
Flash Point:	~ 172 °C 342 °F
Flammable Limits (% By Vol):	Not applicable
Autoignition Temperature:	~ 388 °C 730 °F Not available
Decomposition Temperature:	Not available
Partition coefficient n-octanol/water (log value):	1.79 @ 21 °C (Log Pow)
Odor Threshold:	Not available
Viscosity (Kinematic):	Not applicable
Viscosity (Dynamic):	~ 220 mPa.s @ 25 °C
Flammability:	Normal combustion

Oxidizing Properties: No

Other safety characteristics
Self-accelerating polymerisation temperature (SAPT):
According to special provision SP386, it is ensured that the level of chemical stabilization is sufficient to prevent dangerous polymerization during the entire duration of transport.

10. STABILITY AND REACTIVITY

Reactivity: No information available

Stability: Polymerization can occur.

Conditions To Avoid: Loss of dissolved air. Loss of polymerization inhibitor. Avoid contact with oxidizing agents, bases or amines.

Polymerization: May occur

Conditions To Avoid: Risk of spontaneous polymerisation in the presence of radical donors. Avoid contact with oxidizing agents, free radical initiators, sunlight or ultraviolet light, bases or amines. Excessive heat.

Materials To Avoid: Strong bases or amines, oxidizing agents.
Avoid sources of free radicals, peroxides and metal ions.

Hazardous Decomposition Products: oxides of carbon
uncombusted hydrocarbons (smoke)
soot when burned

11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure: Oral, Eyes, Skin, Respiratory System.

Acute toxicity - oral: Harmful if swallowed
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: Causes severe skin burns and eye damage.
Serious eye damage / eye irritation: Causes serious eye damage

Respiratory sensitization: May cause allergy or asthma symptoms or breathing difficulties if inhaled
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: May cause respiratory irritation.
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	505.05	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	Corrosive
Acute Irritation	eye	Causes serious damage

ALLERGIC SENSITIZATION

Sensitization	Skin	Severe Sensitizing
Sensitization	respiratory	No data

SUBACUTE/SUBCHRONIC TOXICITY

oral (gavage)	rat	No data
dermal	rat	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

Butanedioic acid, 1-[2-[(1-oxo-2-propen-1-yl)oxy]ethyl] ester has an acute oral (rat) LD50 value of 300-2000 mg/kg bw. The substance is corrosive to skin, eye and mucous membranes. Allergic reactions upon dermal or inhalation exposure were observed in animal studies. Weak genotoxic effects were seen with in vitro studies, but these were not confirmed with in vivo studies. Local irritation in the stomach was the most adverse effect in repeated dose toxicity via the oral route. Reproductive performance was not affected in a screening study. Other endpoints have not been further investigated so far.

Acute overexposure to maleic anhydride vapors may cause severe eye, nasal and respiratory irritation. Repeated exposure to the vapor may cause lung disease as well as respiratory or skin sensitization. The oral (rat) and dermal (rabbit) LD50 values are 1090 mg/kg and 2620 mg/kg, respectively. The 1 hour inhalation LC50-value was > 4.35 mg/L in a rat study. Repeated exposure may lead to damage to the respiratory tract or kidneys. Clastogenic effects were seen during an in vitro study (ambiguous results), but the in vivo follow up study didn’t confirm these findings. No carcinogen or teratogenic effects are expected.

---

12. ECOLOGICAL INFORMATION

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

Overall Environmental Toxicity: Harmful to aquatic life.

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
Butanedioic acid, 1-[2-[(1-oxo-2-propen-1-yl)oxy]ethyl] ester (50940-49-3)	LC50 = 24 mg/L - Oncorhynchus mykiss - 96hrs
Maleic anhydride (108-31-6)	LC50 = 75 mg/L - Lepomis macrochirus (96hrs) LC50 = 75 mg/L - Oncorhynchus mykiss (96hrs)

Component / CAS No.	Toxicity to Water Flea
Butanedioic acid, 1-[2-[(1-oxo-2-propen-1-yl)oxy]ethyl] ester (50940-49-3)	EC50 = 75 mg/L - Daphnia magna - 48hrs
Maleic anhydride (108-31-6)	EC50 = 42.81 mg/L - Daphnia magna (48hrs) NOEC = 10 mg/L - Daphnia magna (21d)

Component / CAS No.	Toxicity to Algae
Butanedioic acid, 1-[2-[(1-oxo-2-propen-1-yl)oxy]ethyl] ester (50940-49-3)	EC50 = 38 mg/L - Scenedesmus subspicatus - 72hrs EC10 = 1.3 mg/L - Scenedesmus subspicatus - 72hrs
Maleic anhydride (108-31-6)	EC50 = 74.32 mg/L - Pseudokirchneriella subcapitata (72hrs) EC10 = 11.8 mg/L - Pseudokirchnerella subcapitata (72hrs

Component / CAS No.	Partition coefficient
Butanedioic acid, 1-[2-[(1-oxo-2-propen-1-yl)oxy]ethyl] ester (50940-49-3)	Not available
Maleic anhydride (108-31-6)	log Kow = -2.16 (corresponding acid)

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: CORROSIVE LIQUID, N.O.S.
Hazard Class: 8
Packing Group: III
UN/ID Number: UN1760
Transport Label Required: Corrosive
TECHNICAL NAME (N.O.S.): ACRYLATE ESTER

TRANSPORT CANADA

Dangerous Goods? X
PROPER SHIPPING NAME: CORROSIVE LIQUID, N.O.S.
Hazard Class: 8
Packing Group: III
UN Number: UN1760
Transport Label Required: Corrosive
TECHNICAL NAME (N.O.S.): Acrylate ester

ICAO / IATA

Dangerous Goods? X
UN PROPER SHIPPING NAME: CORROSIVE LIQUID, N.O.S.
Transport Hazard Class: 8
Packing Group: III
UN Number: UN1760
Transport Label Required: Corrosive
TECHNICAL NAME (N.O.S.): ACRYLATED ESTERS

IMO

Dangerous Goods? X
UN PROPER SHIPPING NAME: CORROSIVE LIQUID, N.O.S.
Transport Hazard Class: 8
UN Number: UN1760
Packing Group: III
Transport Label Required: Corrosive
TECHNICAL NAME (N.O.S.): ACRYLATED ESTERS

SPECIAL PRECAUTIONS FOR USER
Protect against external heat sources higher than +40°C/104°F.

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: 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).

Australia: One or more components of this product have NOT yet been included in the Australian Inventory of Industrial Chemicals (AIIC) or assessed by AICIS.

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 and ISHL) inventories or are not required to be listed on the Japanese inventories.

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

Toxic Chemical Substances: Not applicable

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
Acute toxicity (any route of exposure)
Skin Corrosion or Irritation
Respiratory or Skin Sensitization
Serious eye damage or eye irritation
Specific target organ toxicity (single or repeated exposure)

16. OTHER INFORMATION

NFPA Hazard Rating (National Fire Protection Association)

Health: 3 - Materials that, under emergency conditions, can cause serious or permanent 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: New Product

Date Prepared: 04/22/2025
Date of last significant revision: 04/14/2025

Component - Hazard Statements

Butanedioic acid, 1-[2-[(1-oxo-2-propen-1-yl)oxy]ethyl] ester
- H302 - Harmful if swallowed.
- H335 - May cause respiratory irritation.
- H314 - Causes severe skin burns and eye damage.
- H318 - Causes serious eye damage.
- H317 - May cause an allergic skin reaction.
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H402 - Harmful to aquatic life.

Maleic anhydride
- H302 - Harmful if swallowed.
- H314 - Causes severe skin burns and eye damage.
- H317 - May cause an allergic skin reaction.
- H318 - Causes serious eye damage.
- H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H372 - Causes damage to organs through prolonged or repeated exposure.
- H402 - Harmful to aquatic life.

Emergency phone numbers for other regions

Asia Pacific
Australia: 1800 074 234 (toll free) or +61 2 8014 4558 (Carechem 24)
China (PRC): +86 532 8388 9090 (NRCC)
India: 000 800 100 7479 (toll free) or +65 3158 1198 (Carechem 24)
Indonesia: 007 803 011 0293 (Carechem 24)
Japan: 0120 015 230 (toll free) (Carechem 24)
Korea: +82 2 3479 8401 (Carechem 24)
Malaysia: +60 3 6207 4347 (Carechem 24)
New Zealand: 0800 446 881 (toll free) or +64 9 929 1483 (Carechem 24)
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)

Canada
+1-800-579-7421 (toll free) or +1-215-207-0061 (Carechem 24)