



SAFETY DATA SHEET

Safety Data Sheet according to regulation (EC) No 1907/2006 and amendments

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name: EBECRYL® 3203 radiation curing resins
Product Description: Acrylated resin
Intended/Recommended Use: Coatings & Inks

Company: Cytec Industries Inc., Five Garret Mountain Plaza, West Paterson, New Jersey 07424, USA. For Product Information call 1-800/652-6013. Outside the USA and Canada call +1-973/357-3193 or your local Cytec contact point. E-mail: custinfo@cytec.com

Local Contact Information: Cytec Industries UK Ltd BD4 7TT Bradford, West Yorkshire Bowling Park Drive, GB
Telephone no.: +44 1-27473-3891

EMERGENCY PHONE - For emergency involving spill, leak, fire, exposure or accident call:

Europe: +31-181-295600

USA: +1-703-527-3887 or 1-800-424-9300 (CHEMTREC)

Canada: 1-905-356-8310

Latin America:

Chile - 56-2-247-3600 (CITUC QUIMICO)

Outside Chile - +52-376-737-4122 (Cytec Atequiza Mexico).

Asia Pacific Region:

Australia - +61-3-9663-2130 or 1800-033-111 (within Australia only)

New Guinea - 61-3-9663-2130

New Zealand - 0800-734-607 (within New Zealand only)

Taiwan - 886-7-3743713 (Mandarin only)

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2. HAZARDS IDENTIFICATION

HUMAN AND ENVIRONMENTAL HAZARDS

Irritating to eyes.

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENTS

Component / CAS No.	% (w/w)	EC-No	Classification
Polyol acrylate	60 - 70	-	Xi; R36

See Section 16 for Ingredient Risk Phrase Text

4. FIRST AID MEASURES

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.

Skin contact:

Wash immediately with plenty of water and soap.

Eye contact:

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

Inhalation:

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

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:

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

Extinguishing Media to Avoid:

full water jet 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.

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.

7. HANDLING AND STORAGE

Handling

Precautionary Measures: Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Keep container closed. Wash thoroughly after handling.

Special Handling Statements: None

Storage

Observe label precautions. Prevent unauthorised access. Keep away from sources of ignition. Keep away from oxidizing agents, from alkaline and acid materials. Containers which are opened must be carefully resealed and kept upright to prevent leakage. This material should not be stored for more than the period mentioned on the Technical Data Sheet (TDS). Store between 4°C and 40°C. 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

Reason: Integrity.

Specific Use Guidelines: See the Guidelines for Printers on the Safe Use of Energy Curing Printing Inks and Varnishes, from CEPE. See the Joint BG/HSE/CNAMTS/ISPESL Protocol on improved conditions of use of UV-printing technology in the printing industry in Germany, UK, France, Italy and other interested Member States of the European Union; document from Radtech Europe; (BG:Germany- Berufsgenossenschaften); (HSE: UK- Health and Safety Executive); (CNAMTS: France- Caisse National d'Assurance Maladie des Travailleurs Salariés); (ISPESL: Italy- Istituto Superiore per la Prevenzione e la Sicurezza del Lavoro).

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 recommended by an industrial hygienist after an evaluation of the operation. Where inhalation exposure can not occur, no respiratory protection is required. A full facepiece respirator also provides eye and face protection.

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.

Hand protection:

Barrier creams may help to protect the exposed areas of the skin, they should however not be applied once exposure has occurred. Wear rubber gloves. Do not wear PVC gloves as PVC absorbs acrylates. Do not use natural rubber gloves. Replace gloves immediately when torn or any change in appearance (dimension, colour, flexibility etc) is noticed.

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)

No values have been established.

9. PHYSICAL AND CHEMICAL PROPERTIES

Colour:	clear pale yellow
Appearance:	clear liquid
Odor:	ester-like
Boiling Point:	>100 °C
Melting Point:	Not applicable

9. PHYSICAL AND CHEMICAL PROPERTIES

Vapour pressure:	0.013 hPa @ 20 °C
Specific Gravity/Density:	1.0 - 1.1 g/cm ³
Vapour density:	Not available
Percent Volatile (% by wt.):	0.1 - 0.5
Solids Content:	99.5%
pH:	Not applicable
Saturation In Air (% By Vol.):	Not applicable
Evaporation rate:	Not applicable
Solubility In Water:	Not available
Acid Number (mg KOH/g):	Not applicable
Hydroxyl Value (mg KOH/g):	Not applicable
Volatile Organic Content (EU):	Not available
Flash point:	> 100 °C Setaflash Closed Cup
Flammable Limits (% By Vol):	Not available
Autoignition temperature:	Not available
Decomposition temperature:	Not available
Partition coefficient (n-octanol/water):	Not available
Fat Solubility (Solvent-Oil):	Not available
Viscosity (Kinematic):	Not available
Viscosity (Dynamic):	Viscous liquid

10. STABILITY AND REACTIVITY

Stability:	Stable
Conditions To Avoid:	Avoid direct contact with heat sources. Avoid direct exposure to sunlight. Avoid exposure to strong UV sources. Avoid friction with temperature increase as result. Loss of polymerization inhibitor. Loss of dissolved air. Avoid temperatures above 40°C (104°F).
Polymerization:	May occur
Conditions To Avoid:	Avoid contact with free radical initiators. Avoid contact with strong oxidizing agents. Avoid contact with bases or amines. Uncontrolled polymerization may cause rapid evolution of heat and increase in pressure that could result in violent rupture of sealed storage vessels or containers
Materials to avoid:	Avoid contact with active metals. Avoid free radical producing initiators. Avoid contact with peroxides. Avoid contact with reactive metals. Avoid contact with strong alkali's. They give an exothermic reaction with the product. Unintentional contact with them should be avoided.
Hazardous Decomposition Products:	Carbon monoxide (CO) Carbon dioxide hydrocarbons Hazardous exothermic polymerization can occur when heated. Hazardous polymerization can occur when exposed to direct sunlight.

11. TOXICOLOGICAL INFORMATION

Potential health effects

Irritating to eyes.

PRODUCT TOXICITY INFORMATION

ACUTE TOXICITY DATA

Oral	rat	Acute LD50	>2000 mg/kg
dermal	rabbit	Acute LD50	>2000 mg/kg
Inhalation	rat	Acute LC50	No data

LOCAL EFFECTS ON SKIN AND EYE

Acute Irritation	eye	irritating
Acute Irritation	dermal	No data

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 product toxicity information above has been estimated.

When the preparation test data are not available, the preparation has been assessed following the conventional method of the Dangerous Preparations Directive 1999/45/EC and classified for toxicological hazards accordingly. See sections 3 and 15 for details.

Contact with skin may cause a cross-allergic reaction in persons already sensitized to acrylates.

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

Polyol acrylate

oral (gavage) rat Acute LD50 (Actual) > 2000 mg/kg

dermal rabbit Acute LD50 (Actual) > 2000 mg/kg

LOCAL EFFECTS ON SKIN AND EYE

Polyol acrylate

Acute Eye Irritation irritating

Acute Dermal Irritation Not irritating

GENOTOXICITY

Polyol acrylate

Ames Salmonella Assay Negative

Mouse lymphoma cell forward mutation Positive

12. ECOLOGICAL INFORMATION

The ecological properties of this material have not been fully investigated. An assessment has been initiated to determine possible environmental effects.

12. ECOLOGICAL INFORMATION

13. DISPOSAL CONSIDERATIONS

The Company encourages the recycle, recovery and reuse of materials, where permitted. If disposal is necessary, The Company recommends that organic materials, especially when classified as hazardous waste, be disposed of by thermal treatment or incineration at approved facilities. All local and national regulations should be followed.

14. TRANSPORT INFORMATION

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

ADR/RID

Proper Shipping Name: Not applicable/Not regulated

IMO

Proper shipping name: Not applicable/Not regulated

ICAO / IATA

Proper shipping name: Not applicable/Not regulated

Packing Instructions/Maximum Net Quantity Per Package:

Passenger Aircraft: -

Cargo Aircraft: -

15. REGULATORY INFORMATION

Labelling according to EC Directives

Symbol(s): Xi - Irritant

Risk Phrases:

R36 - Irritating to eyes.

Safety Phrases:

S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

Special labelling of certain preparations:

Contains dipropylenglycol diacrylate. May produce an allergic reaction.

HAZARDOUS INGREDIENTS

Component / CAS No.

- Polyol acrylate

Water Endangering Class (Germany): 2 according to VwVwS, 17.05.1999

INVENTORY INFORMATION

European Union (EU):

All components of this product are included on the European Inventory of Existing Chemical Substances (EINECS) or are not required to be listed on EINECS.

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 NOT included on the Philippine (PICCS) inventory.

16. OTHER INFORMATION

Reasons for Issue:

Revised Section 3
Revised Section 15

Polyol acrylate

R36 - Irritating to eyes.

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