

# SAFETY DATA SHEET

## ED2075

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

### 1. Identification

#### Product identifier

**Product name** ED2075

#### Recommended use of the chemical and restrictions on use

**Application** Printing ink.

**Uses advised against** No specific uses advised against are identified.

#### Details of the supplier of the safety data sheet

**Supplier** Electra Polymers Ltd  
Roughway Mill  
Tonbridge  
Kent TN11 9SG  
UK

Tel: +44 1732 811118

Fax: +44 1732 811119

#### Emergency telephone number

**Emergency telephone** +44 (0)1732 811 118 (08.30 - 17.00 GMT)

### 2. Hazard(s) identification

#### Classification of the substance or mixture

**Physical hazards** Not Classified

**Health hazards** Skin Irrit. 2 - H315 Eye Irrit. 2A - H319 Skin Sens. 1 - H317

**Environmental hazards** Aquatic Chronic 3 - H412

**Human health** Irritating to eyes.

#### Label elements

##### Pictogram



**Signal word** Warning

**Hazard statements** H315 Causes skin irritation.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H412 Harmful to aquatic life with long lasting effects.

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### Precautionary statements

P261 Avoid breathing vapor/ spray.  
 P264 Wash contaminated skin thoroughly after handling.  
 P272 Contaminated work clothing must not be allowed out of the workplace.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  
 P302+P352 If on skin: Wash with plenty of water.  
 P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P321 Specific treatment (see medical advice on this label).  
 P332+P313 If skin irritation occurs: Get medical advice/ attention.  
 P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.  
 P337+P313 If eye irritation persists: Get medical advice/ attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P501 Dispose of contents/ container in accordance with national regulations.

### Contains

BISPHENOL F EPOXY RESIN, BUTANEDIOLDIGLYCIDYL ETHER, OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS

### Other hazards

This product does not contain any substances classified as PBT or vPvB. May cause skin sensitization or allergic reactions in sensitive individuals.

## 3. Composition/information on ingredients

### Mixtures

<b>SILVER</b>	<b>60-100%</b>
CAS number: 7440-22-4 M factor (Acute) = 1	M factor (Chronic) = 1
<b>Classification</b> Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	
<b>BISPHENOL F EPOXY RESIN</b>	<b>10-30%</b>
CAS number: 9003-36-5	
<b>Classification</b> Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	
<b>BUTANEDIOLDIGLYCIDYL ETHER</b>	<b>1-5%</b>
CAS number: 2425-79-8	
<b>Classification</b> Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317	

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<b>BENZYLAMINOTRIFLUOROBORANE</b>	<b>1-5%</b>
CAS number: 696-99-1	
<b>Classification</b> Acute Tox. 4 - H302 Skin Corr. 1B - H314	
<b>BORON (2-PROPANAMINE)TRIFLUORO REACTIONPRODUCTS WITH BUTYL GLYCIDYL ETHER</b>	<b>1-5%</b>
CAS number: 68478-97-7	
<b>Classification</b> Acute Tox. 4 - H302 Skin Corr. 1B - H314	
<b>OXIRANE, MONO [(C12-14- ALKYLOXY)METHYL] DERIVS</b>	<b>0.1-1%</b>
CAS number: 68609-97-2	
<b>Classification</b> Skin Irrit. 2 - H315 Skin Sens. 1 - H317	

The full text for all hazard statements is displayed in Section 16.

**Composition comments**      The Data Shown is in accordance with the latest EC Directives.

#### 4. First-aid measures

##### Description of first aid measures

<b>General information</b>	Get medical attention if any discomfort continues. Treat symptomatically.
<b>Inhalation</b>	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Do not induce vomiting. Get medical attention if any discomfort continues.
<b>Skin Contact</b>	Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing. Take off contaminated clothing and wash it before reuse.
<b>Eye contact</b>	Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

##### Most important symptoms and effects, both acute and delayed

<b>General information</b>	Treat symptomatically.
<b>Inhalation</b>	No specific symptoms known. May cause respiratory irritation.
<b>Ingestion</b>	No specific symptoms known. May cause irritation.
<b>Skin contact</b>	Causes skin irritation. May cause sensitisation by skin contact.
<b>Eye contact</b>	Causes serious eye irritation.

##### Indication of immediate medical attention and special treatment needed

**Notes for the doctor**      No specific recommendations.

#### 5. Fire-fighting measures

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### Extinguishing media

**Suitable extinguishing media** Extinguish with foam, carbon dioxide, dry powder or water fog.

**Unsuitable extinguishing media** Do not use water jet as an extinguisher, as this will spread the fire.

### Special hazards arising from the substance or mixture

**Specific hazards** None.

**Hazardous combustion products** Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Toxic gases or vapors.

### Advice for firefighters

**Protective actions during firefighting** No specific firefighting precautions known.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet. No smoking, sparks, flames or other sources of ignition near spillage.

### Environmental precautions

**Environmental precautions** Do not discharge into drains or watercourses or onto the ground. Avoid the spillage or runoff entering drains, sewers or watercourses. Contain spillage with sand, earth or other suitable non-combustible material.

### Methods and material for containment and cleaning up

**Methods for cleaning up** Eliminate all sources of ignition. No smoking, sparks, flames or other sources of ignition near spillage. Provide adequate ventilation. Absorb spillage with non-combustible, absorbent material. Collect and place in suitable waste disposal containers and seal securely.

**Reference to other sections** Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

## 7. Handling and storage

### Precautions for safe handling

**Usage precautions** Avoid inhalation of vapors and spray/mists. Wear protective clothing, gloves, eye and face protection.

**Advice on general occupational hygiene** Good personal hygiene procedures should be implemented. Do not eat, drink or smoke when using this product. Wash after use and before eating, smoking and using the toilet. Remove contaminated clothing and protective equipment before entering eating areas.

### Conditions for safe storage, including any incompatibilities

**Storage precautions** Keep away from heat, sparks and open flame. Store in tightly-closed, original container. Protect from freezing and direct sunlight.

**Storage class** Miscellaneous hazardous material storage.

### Specific end uses(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

## 8. Exposure Controls/personal protection

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### Control parameters

### Occupational exposure limits

#### SILVER

Long-term exposure limit (8-hour TWA): OSHA 0.01 mg/m<sup>3</sup>  
as Ag

Long-term exposure limit (8-hour TWA): ACGIH 0.1 mg/m<sup>3</sup> dust and fume

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

### Exposure controls

#### Protective equipment



#### Appropriate engineering controls

Provide adequate general and local exhaust ventilation.

#### Eye/face protection

Wear eye protection.

#### Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Butyl rubber. Nitrile rubber. Neoprene. Polyvinyl chloride (PVC). Laminate of polyethylene and ethylene vinyl alcohol (PE/EVOH).

#### Other skin and body protection

Wear apron or protective clothing in case of contact.

#### Hygiene measures

Do not eat, drink or smoke when using this product. Use engineering controls to reduce air contamination to permissible exposure level. Wash after use and before eating, smoking and using the toilet. Provide eyewash station. Wash contaminated clothing before reuse.

#### Respiratory protection

No specific requirements are anticipated under normal conditions of use.

#### Environmental exposure controls

Residues and empty containers should be taken care of as hazardous waste according to local and national provisions. Prevent spillage entering a watercourse or sewer, contaminating soil or vegetation. If this is not possible notify police and appropriate authorities immediately.

## 9. Physical and Chemical Properties

### Information on basic physical and chemical properties

Appearance	Paste.
Color	Silver.
Odor	Mild.
Odor threshold	Not determined.
pH	Not determined.
Melting point	Not determined.
Initial boiling point and range	Not determined.
Flash point	n/a°C
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not determined.

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<b>Upper/lower flammability or explosive limits</b>	Not determined.
<b>Other flammability</b>	Not determined.
<b>Vapor pressure</b>	Not determined.
<b>Vapor density</b>	Not determined.
<b>Relative density</b>	2.1 @ 20°C
<b>Bulk density</b>	Not determined.
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not determined.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	Kinematic viscosity > 20.5 mm <sup>2</sup> /s.
<b>Explosive properties</b>	Not considered to be explosive.
<b>Explosive under the influence of a flame</b>	No
<b>Oxidizing properties</b>	The mixture itself has not been tested but none of the ingredient substances meet the criteria for classification as oxidizing.
<b>Comments</b>	Information given is applicable to the product as supplied.
<b>Other information</b>	None.
<b>Refractive index</b>	Not determined.
<b>Particle size</b>	Not applicable.
<b>Molecular weight</b>	Not applicable.
<b>Volatility</b>	Not determined.
<b>Saturation concentration</b>	Not determined.
<b>Critical temperature</b>	Not determined.
<b>Volatile organic compound</b>	Not determined.

**10. Stability and reactivity**

<b>Reactivity</b>	There are no known reactivity hazards associated with this product.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended.
<b>Possibility of hazardous reactions</b>	Polymerizes when heated.
<b>Conditions to avoid</b>	Keep away from heat, sparks and open flame. Avoid exposure to high temperatures or direct sunlight.
<b>Materials to avoid</b>	Strong alkalis. Strong oxidizing agents. Strong acids.
<b>Hazardous decomposition products</b>	Thermal decomposition or combustion products may include the following substances: Acrid smoke or fumes. Oxides of nitrogen. Oxides of carbon.

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**11. Toxicological information****Information on toxicological effects****Acute toxicity - oral**

**Notes (oral LD<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE oral (mg/kg)** 21,043.77

**Acute toxicity - dermal**

**Notes (dermal LD<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE dermal (mg/kg)** 23,404.26

**Acute toxicity - inhalation**

**Notes (inhalation LC<sub>50</sub>)** Based on available data the classification criteria are not met.

**ATE inhalation (gases ppm)** 95,744.68

**ATE inhalation (vapours mg/l)** 234.04

**ATE inhalation (dusts/mists mg/l)** 31.91

**Skin corrosion/irritation**

**Animal data** No information available.

**Human skin model test** No information available.

**Extreme pH** Based on available data the classification criteria are not met.

**Serious eye damage/irritation**

**Serious eye damage/irritation** Causes serious eye irritation.

**Respiratory sensitization**

**Respiratory sensitization** Based on available data the classification criteria are not met.

**Skin sensitization**

**Skin sensitization** Sensitizing.

**Germ cell mutagenicity**

**Genotoxicity - in vitro** Based on available data the classification criteria are not met.

**Genotoxicity - in vivo** Based on available data the classification criteria are not met.

**Carcinogenicity**

**Carcinogenicity** Based on available data the classification criteria are not met. Does not contain any substances known to be carcinogenic.

**Reproductive toxicity**

**Reproductive toxicity - fertility** Based on available data the classification criteria are not met. Does not contain any substances known to be toxic to reproduction.

**Reproductive toxicity - development** Based on available data the classification criteria are not met. Does not contain any substances known to be toxic to reproduction.

**Specific target organ toxicity - single exposure**

**STOT - single exposure** Based on available data the classification criteria are not met.

**Specific target organ toxicity - repeated exposure**

**STOT - repeated exposure** Based on available data the classification criteria are not met.

**Aspiration hazard**

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<b>Aspiration hazard</b>	Based on available data the classification criteria are not met.
<b>General information</b>	The product contains small amounts of organic solvents. Extensive use of the product in areas with inadequate ventilation may result in the accumulation of hazardous vapor concentrations.
<b>Inhalation</b>	No specific health hazards known. May cause respiratory system irritation.
<b>Ingestion</b>	No specific health hazards known. May cause discomfort if swallowed.
<b>Skin Contact</b>	May cause sensitisation by skin contact.
<b>Eye contact</b>	Causes serious eye irritation.
<b>Acute and chronic health hazards</b>	May cause skin sensitization or allergic reactions in sensitive individuals.
<b>Route of exposure</b>	Inhalation Skin absorption Skin and/or eye contact Ingestion
<b>Target Organs</b>	No specific target organs known.
<b>Medical Symptoms</b>	Symptoms following overexposure may include the following: Allergic rash. May cause discomfort if swallowed.
<b>Medical considerations</b>	May cause allergic contact eczema.

**Toxicological information on ingredients.****BISPHENOL F EPOXY RESIN****Acute toxicity - oral**

**Acute toxicity oral (LD<sub>50</sub> mg/kg)** 5,001.0

**Species** Rat

**ATE oral (mg/kg)** 5,001.0

**Acute toxicity - dermal**

**Acute toxicity dermal (LD<sub>50</sub> mg/kg)** 2,000.0

**Species** Rat

**Skin corrosion/irritation**

**Animal data** Slightly irritating.

**Serious eye damage/irritation**

**Serious eye damage/irritation** Not irritating.

**Skin sensitization**

**Skin sensitization** - Mouse: Sensitizing.

**Germ cell mutagenicity**

**Genotoxicity - in vitro** : Positive. Inconclusive data.

**Carcinogenicity**

**Carcinogenicity** No evidence of carcinogenicity in animal studies.



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**12. Ecological Information**

**Ecotoxicity** The product contains substances which are toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

**Acute aquatic toxicity**

**Acute toxicity - fish** Not determined.

**Acute toxicity - aquatic invertebrates** Not determined.

**Acute toxicity - aquatic plants** Not determined.

**Acute toxicity - microorganisms** Not determined.

**Acute toxicity - terrestrial** Not determined.

**Chronic aquatic toxicity**

**Chronic toxicity - fish early life stage** Not determined.

**Short term toxicity - embryo and sac fry stages** Not determined.

**Chronic toxicity - aquatic invertebrates** Not determined.

**Ecological information on ingredients.****BISPHENOL F EPOXY RESIN****Acute aquatic toxicity**

**Acute toxicity - fish** , 96 hours: 0.55 mg/l,

**Acute toxicity - aquatic invertebrates** EC<sub>50</sub>, 48 hours: 1.6 mg/l, Daphnia magna

**Acute toxicity - aquatic plants** EC<sub>50</sub>, 72 hours: 1.8 mg/l, Freshwater algae

**Chronic aquatic toxicity**

**Chronic toxicity - aquatic invertebrates** NOEC, 21 days: 0.3 mg/l, Daphnia magna

**Persistence and degradability**

**Persistence and degradability** This product is not expected to be readily biodegradable.

**Phototransformation** Not determined.

**Stability (hydrolysis)** Not determined.

**Biodegradation** Not determined.

**Biological oxygen demand** Not determined.

**Chemical oxygen demand** Not determined.

**Ecological information on ingredients.****BISPHENOL F EPOXY RESIN**

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**Persistence and degradability** The product is not readily biodegradable.

**Bioaccumulative potential**

**Bio-Accumulative Potential** Not determined.

**Partition coefficient** Not determined.

**Ecological information on ingredients.****BISPHENOL F EPOXY RESIN**

**Bio-Accumulative Potential** May accumulate in soil and water systems.

**Partition coefficient** Pow: 2.7 - 3.6

**Mobility in soil**

**Adsorption/desorption coefficient** Not determined.

**Henry's law constant** Not determined.

**Surface tension** Not determined.

**Ecological information on ingredients.****BISPHENOL F EPOXY RESIN**

**Adsorption/desorption coefficient** Not available.

**Other adverse effects**

**Other adverse effects** None known.

**Ecological information on ingredients.****BISPHENOL F EPOXY RESIN**

**Other adverse effects** None known.

**13. Disposal considerations****Waste treatment methods**

**General information** Waste is classified as hazardous waste.

**Disposal methods** Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. Residues and empty containers should be taken care of as hazardous waste according to local and national provisions.

**14. Transport information**

**General** The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DOT).

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not applicable.

**15. Regulatory information****US Federal Regulations**

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### **SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities**

The following ingredients are listed or exempt:

### **CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)**

The following ingredients are listed:

*SILVER*

Final CERCLA RQ: 1000(454) pounds (Kilograms)

### **SARA Extremely Hazardous Substances EPCRA Reportable Quantities**

None of the ingredients are listed or exempt.

### **SARA 313 Emission Reporting**

The following ingredients are listed:

*SILVER*

1.0 %

### **CAA Accidental Release Prevention**

None of the ingredients are listed or exempt.

### **SARA (311/312) Hazard Categories**

None

### **OSHA Highly Hazardous Chemicals**

None of the ingredients are listed or exempt.

### **US State Regulations**

#### **California Proposition 65 Carcinogens and Reproductive Toxins**

None of the ingredients are listed or exempt.

#### **California Air Toxics "Hot Spots" (A-I)**

None of the ingredients are listed or exempt.

#### **California Air Toxics "Hot Spots" (A-II)**

None of the ingredients are listed or exempt.

#### **California Directors List of Hazardous Substances**

None of the ingredients are listed or exempt.

#### **Massachusetts "Right To Know" List**

The following ingredients are listed:

*SILVER*

#### **Rhode Island "Right To Know" List**

The following ingredients are listed:

*SILVER*

#### **Minnesota "Right To Know" List**

The following ingredients are listed:

*SILVER*

#### **New Jersey "Right To Know" List**

The following ingredients are listed:

*SILVER*

**ED2075****Pennsylvania "Right To Know" List**

The following ingredients are listed:

*SILVER*

**Inventories****US - TSCA**

All the ingredients are listed or exempt.

**US - TSCA 12(b) Export Notification**

None of the ingredients are listed or exempt.

**16. Other information**

<b>Issued by</b>	HS&E Manager.
<b>Revision date</b>	8/7/2018
<b>Revision</b>	9
<b>Supersedes date</b>	6/15/2017
<b>Hazard statements in full</b>	H302 Harmful if swallowed. H312 Harmful in contact with skin. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H319 Causes serious eye irritation. H332 Harmful if inhaled. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.
<b>NFPA - health hazard</b>	Irritation, minor residual injury. (1)
<b>NFPA - flammability hazard</b>	Burns only if pre-heated. (1)
<b>NFPA - instability hazard</b>	Normally stable. (0)
<b>NFPA - special hazard</b>	N/A
<b>ACA HMIS Health rating.</b>	Slight hazard. (1)
<b>ACA HMIS Flammability rating.</b>	Burns only if pre-heated. (1)
<b>ACA HMIS Physical hazard rating.</b>	Normally stable. (0)
<b>ACA HMIS Personal protection rating.</b>	N/A.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.