



## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

**EpoColor Resin**  
**Article number 20-8143-032**

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

#### 1.2.1 Relevant uses

Mounting material for metallographic specimens

#### 1.2.2 Uses advised against

None known.

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

**Company** ITW Test & Measurement GmbH  
In der Steele 2  
40599 Düsseldorf / GERMANY  
Phone 0800 707 6273  
Fax 0800 707 6274  
Homepage [www.buehler-met.de](http://www.buehler-met.de)  
E-mail [info.uk@buehler.com](mailto:info.uk@buehler.com)

#### Address enquiries to

**Technical information** [info.uk@buehler.com](mailto:info.uk@buehler.com)

**Safety Data Sheet** [sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)

### 1.4 Emergency telephone number

**Company** 0800 707 6273 (Only valid if dialled within the UK) +49 (0) 211 974100

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Skin Sens. 1: H317 May cause an allergic skin reaction.  
Eye Irrit. 2: H319 Causes serious eye irritation.  
Skin Irrit. 2: H315 Causes skin irritation.  
Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects.

### 2.2 Label elements

The product is classified and required to be labelled in accordance with EC-Directives

#### Hazard pictograms



**Signal word** WARNING

**Contains:** [[(2-Ethylhexyl)oxy]methyl]oxirane

Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight ≤ 700)

Trimethylolpropan triacrylate

#### Hazard statements

H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H315 Causes skin irritation.  
H411 Toxic to aquatic life with long lasting effects.

#### Precautionary statements

P261 Avoid breathing vapours / spray.  
P273 Avoid release to the environment.  
P280 Wear protective gloves / eye protection / face protection.  
P333+P313 If skin irritation or rash occurs: Get medical advice / attention.  
P337+P313 If eye irritation persists: Get medical advice / attention.  
P501 Dispose of contents / container to in accordance with local / regional / national / international regulation.



### 2.3 Other hazards

**Environmental hazards**

Does not contain any PBT or vPvB substances.

**Other hazards**

Further hazards were not determined with the current level of knowledge.

## SECTION 3: Composition / Information on ingredients

**Product-type:**

The product is a mixture.

Range [%]	Substance
60 - 100	Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight $\leq$ 700) CAS: 25068-38-6, EINECS/ELINCS: 500-033-5, EU-INDEX: 603-074-00-8 GHS/CLP: Eye Irrit. 2: H319 - Skin Irrit. 2: H315 - Skin Sens. 1: H317 - Aquatic Chronic 2: H411
10 - 30	[[[2-Ethylhexyl]oxy]methyl]oxirane CAS: 2461-15-6, EINECS/ELINCS: 219-553-6 GHS/CLP: Skin Sens. 1: H317 - Skin Irrit. 2: H315
5 - 10	Trimethylolpropan triacrylate CAS: 15625-89-5, EINECS/ELINCS: 239-701-3, EU-INDEX: 607-111-00-9 GHS/CLP: Eye Irrit. 2: H319 - Skin Irrit. 2: H315 - Skin Sens. 1: H317

**Comment on component parts**
Substances of Very High Concern - SVHC: substances are not contained or are below 0,1%.  
For full text of H-statements: see SECTION 16.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

**General information**

Take off contaminated clothing and wash before reuse.

**Inhalation**
Ensure supply of fresh air.  
In the event of symptoms seek medical treatment.
**Skin contact**
In case of contact with skin wash off immediately with soap and water.  
Consult a doctor if skin irritation persists.
**Eye contact**
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.
**Ingestion**
Consult a doctor immediately.  
Do not induce vomiting.  
Rinse out mouth and give plenty of water to drink.

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

Irritant effects  
Allergic reactions

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

Treat symptomatically.

## SECTION 5: Fire-fighting measures

### 5.1 Extinguishing media

**Suitable extinguishing media**
Carbon dioxide.  
Water spray jet.  
Dry powder.  
Foam.
**Extinguishing media that must not be used**

Full water jet.



## 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.  
Carbon monoxide (CO)  
Carbon dioxide (CO<sub>2</sub>)  
phenol compounds

## 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

High risk of slipping due to leakage/spillage of product.  
Use personal protective equipment.  
Ensure adequate ventilation.

### 6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).  
Do not discharge into the drains/surface waters/groundwater.  
In case the product spills into drains/surface waters/groundwater, immediately inform the authorities.

### 6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).  
Dispose of absorbed material in accordance with the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Use only in well-ventilated areas.  
  
Do not eat, drink, smoke or take drugs at work.  
Wash hands before breaks and after work.  
Use barrier skin cream.  
Take off contaminated clothing and wash before reuse.

### 7.2 Conditions for safe storage, including any incompatibilities

Keep only in original container.  
Prevent penetration into the ground.  
  
Do not store together with oxidizing agents.  
Do not store together with food and animal food/diet.  
  
Keep container tightly closed.  
Store in a dry place.  
Protect from heat/overheating.

### 7.3 Specific end use(s)

See product use, SECTION 1.2



## SECTION 8: Exposure controls / personal protection

### 8.1 Control parameters

#### Ingredients with occupational exposure limits to be monitored (GB)

not applicable

### 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation.
<b>Eye protection</b>	Safety glasses.
<b>Hand protection</b>	Butyl rubber, >480 min (EN 374). The details concerned are recommendations. Please contact the glove supplier for further information.
<b>Skin protection</b>	Light protective clothing of plastic material.
<b>Other</b>	Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity handled. The resistance of this equipment to chemicals should be ascertained with the respective supplier.
<b>Respiratory protection</b>	Not required under normal conditions. If ventilation is insufficient, wear respiratory protection. Short term: filter apparatus, filter A.
<b>Thermal hazards</b>	none
<b>Delimitation and monitoring of the environmental exposition</b>	Comply with applicable environmental regulations limiting discharge to air, water and soil.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

<b>Form</b>	liquid
<b>Color</b>	yellowish
<b>Odor</b>	characteristic
<b>Odour threshold</b>	No information available.
<b>pH-value</b>	not applicable
<b>pH-value [1%]</b>	not applicable
<b>Boiling point [°C]</b>	260
<b>Flash point [°C]</b>	93,33
<b>Flammability (solid, gas) [°C]</b>	not applicable
<b>Lower explosion limit</b>	No information available.
<b>Upper explosion limit</b>	No information available.
<b>Oxidizing properties</b>	no
<b>Vapour pressure/gas pressure [kPa]</b>	< 0,1 mmHg (20 °C)
<b>Density [g/ml]</b>	1,10 (20 °C / 68,0 °F)
<b>Bulk density [kg/m³]</b>	not applicable
<b>Solubility in water</b>	immiscible
<b>Partition coefficient [n-octanol/water]</b>	No information available.
<b>Viscosity</b>	not applicable
<b>Relative vapour density determined in air</b>	> 1
<b>Evaporation speed</b>	< 1
<b>Melting point [°C]</b>	No information available.
<b>Autoignition temperature [°C]</b>	No information available.
<b>Decomposition temperature [°C]</b>	No information available.



## 9.2 Other information

none

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No dangerous reactions known if used as directed.

### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

### 10.3 Possibility of hazardous reactions

Reactions with oxidizing agents.

Reactions with strong acids and alkalies.

Reactions with amines.

### 10.4 Conditions to avoid

Strong heating.

### 10.5 Incompatible materials

See SECTION 10.3.

### 10.6 Hazardous decomposition products

No dangerous reactions known if used as directed.

In the event of fire: See SECTION 5.



## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product
ATE-mix, dermal, Rat: > 2000 mg/kg.
ATE-mix, oral, Rat: > 5000 mg/kg.

Range [%]	Substance
60 - 100	Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight ≤ 700), CAS: 25068-38-6
	LD50, dermal, Rabbit: 22800 mg/kg bw (GESTIS).
	LD50, oral, Rat: 11400 mg/kg bw (GESTIS).
5 - 10	Trimethylolpropan triacrylate, CAS: 15625-89-5
	LD50, dermal, Rabbit: >5000 mg/kg bw (IUCLID).
	LD50, oral, Rat: >5000 mg/kg bw (IUCLID).

<b>Serious eye damage/irritation</b>	Irritant
<b>Skin corrosion/irritation</b>	Irritant
<b>Respiratory or skin sensitisation</b>	Sensitizing.
<b>Specific target organ toxicity — single exposure</b>	Based on available data, the classification criteria are not met.
<b>Specific target organ toxicity — repeated exposure</b>	Based on available data, the classification criteria are not met.
<b>Mutagenicity</b>	Based on available data, the classification criteria are not met.
<b>Reproduction toxicity</b>	Based on available data, the classification criteria are not met.
<b>Carcinogenicity</b>	Based on available data, the classification criteria are not met.
<b>General remarks</b>	

Toxicological data of complete product are not available.  
The product was classified on the basis of the calculation procedure of the preparation directive.  
The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

## SECTION 12: Ecological information

### 12.1 Toxicity

Range [%]	Substance
60 - 100	Reaction product: bisphenol-A-(epichlorhydrin) Epoxy resin (number average molecular weight ≤ 700), CAS: 25068-38-6
	LC50, (96h), Pimephales promelas: 3,1 mg/l (Lit.).
	EC50, (48h), Daphnia magna: 1,4-1,7 mg/l (Lit.).
	IC50, Bacteria: > 42,6 mg/l/18h (Lit.).

### 12.2 Persistence and degradability

<b>Behaviour in environment compartments</b>	No information available.
<b>Behaviour in sewage plant</b>	No information available.
<b>Biological degradability</b>	12%, 28d (CAS 25068-38-6, OECD 302B) The product is not readily biodegradable.

### 12.3 Bioaccumulative potential

BCF: 100 - 3000 (CAS 25068-38-6)  
logPow: 3,242 (CAS 25068-38-6)



## 12.4 Mobility in soil

Koc: 1.800 - 4.400 (CAS 25068-38-6)

## 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

## 12.6 Other adverse effects

The product was classified on the basis of the calculation procedure of the preparation directive.

The product contains organically bound halogen in accordance with the formulation.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

#### Product

Disposal in an incineration plant in accordance with the regulations of the local authorities.  
Coordinate disposal with the authorities if necessary.

#### Waste no. (recommended)

080409\*

#### Contaminated packaging

Packaging that cannot be cleaned should be disposed of as for product.  
Uncontaminated packaging may be taken for recycling.

#### Waste no. (recommended)

150110\*  
150101  
150102  
150104

## SECTION 14: Transport information

### 14.1 UN number

See SECTION 14.2 in accordance with UN shipping name

**14.2 UN proper shipping name**

Transport by land according to ADR/RID

UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy resin) 9 III

- Classification Code

M6

- Label



- ADR LQ

5 I

- ADR 1.1.3.6 (8.6)

Transport category (tunnel restriction code) 3 (E)

Inland navigation (ADN)

UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy resin) 9 III

- Classification Code

M6

- Label



Marine transport in accordance with IMDG

UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy resin) 9 III  
MARINE POLLUTANT

- EMS

F-A, S-F

- Label



- IMDG LQ

5 I

Air transport in accordance with IATA

UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Bisphenol A Epoxy resin-mixture) 9 III

- Label

**14.3 Transport hazard class(es)**

See SECTION 14.2 in accordance with UN shipping name

**14.4 Packing group**

See SECTION 14.2 in accordance with UN shipping name

**14.5 Environmental hazards**

See SECTION 14.2 in accordance with UN shipping name

**14.6 Special precautions for user**

Relevant information under SECTION 6 to 8.

**14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**

not determined





## SECTION 15: Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

<b>EEC-REGULATIONS</b>	1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (REACH); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC; (EU) 2015/830
<b>TRANSPORT-REGULATIONS</b>	DOT-Classification, ADR (2015); IMDG-Code (2015, 37. Amdt.); IATA-DGR (2015).
<b>NATIONAL REGULATIONS (GB):</b>	EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4
- Observe employment restrictions for people	Observe employment restrictions for mothers-to-be and nursing mothers. Observe employment restrictions for young people.
- VOC (1999/13/CE)	not applicable

### 15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

## SECTION 16: Other information

### 16.1 Hazard statements (SECTION 3)

H411 Toxic to aquatic life with long lasting effects.  
H317 May cause an allergic skin reaction.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.

### 16.2 Abbreviations and acronyms:

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
ELINCS = European List of Notified Chemical Substances  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
TLV@TWA = Threshold limit value – time-weighted average  
TLV@STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative

### 16.3 Other information

#### Classification procedure

Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)  
Eye Irrit. 2: H319 Causes serious eye irritation. (Calculation method)  
Skin Irrit. 2: H315 Causes skin irritation. (Calculation method)  
Aquatic Chronic 2: H411 Toxic to aquatic life with long lasting effects. (Calculation method)



**Modified position**

SECTION 2 been added: P501 Dispose of contents / container to in accordance with local / regional / national / international regulation.

SECTION 2 been added: P337+P313 If eye irritation persists: Get medical advice / attention.

SECTION 2 been added: P333+P313 If skin irritation or rash occurs: Get medical advice / attention.

SECTION 2 deleted: P314 Get medical advice / attention if you feel unwell.

SECTION 2 been added: P261 Avoid breathing vapours / spray.

SECTION 6 been added: Pick up with absorbent material (e.g. sand, sawdust, universal absorbent, diatomaceous earth).

SECTION 8 been added: If ventilation is insufficient, wear respiratory protection.

SECTION 8 been added: Short term: filter apparatus, filter A.

SECTION 9 deleted: not applicable

SECTION 9 been added: No information available.

SECTION 11 deleted: not determined

SECTION 11 deleted: not determined

SECTION 11 been added: Irritant

SECTION 11 deleted: not determined

SECTION 11 been added: Irritant

SECTION 11 been added: Sensitizing.

SECTION 11 been added: Based on available data, the classification criteria are not met.

SECTION 11 deleted: not determined

SECTION 12 deleted: not determined

SECTION 12 been added: No information available.

SECTION 16 been added: Calculation method

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