Safety data sheet
according to 1907/2006/EC, Article 31

Version number 1 Revision: 15.01.2019

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

· 1.1 Product identifier

· Trade name: Resi-Tint MAX

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

· Sector of Use: Artwork, Design, Crafts, Mould-making, Resin Casting, River Tables, Furniture Upcycling.

· Product category: PC9a Pigment Coatings and paints.

· Process category: PROC19 Manual activities involving hand contact.

· Environmental release category: ERC5 Use at industrial site leading to inclusion into/onto article
ERC8c Widespread use leading to inclusion into/onto article (indoor)
ERC8f Widespread use leading to inclusion into/onto article (outdoor)

· Article category: AC13 Plastic articles

· Application of the substance: Epoxy Colourant
Resin Pigment
Resin Colourant
Dyestuff
Colouring agent

· 1.3 Details of the supplier of the safety data sheet

· Supplier: Eli-Chem Resins (UK) Ltd, 212 Dunsfold Park, Stovolds Hill, Cranleigh, GU6 8GA (UK)
sales@elichem.co.uk www.elichem.co.uk

· Further information obtainable from: Research and Development.

· 1.4 Emergency telephone number: +44 (0) 1483 266636 (office hours only)
Office hours Mon-Thurs 09:00 to 17:00 hrs Fri 09:00 to 16:00hrs

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

· Classification according to Regulation (EC) No 1272/2008

GHS09 environment

Aquatic Chronic 2 H411 Toxic to aquatic life with long lasting effects.

GHS07

Skin Irrit. 2 H315 Causes skin irritation.

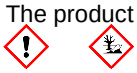
Eye Irrit. 2 H319 Causes serious eye irritation.

Skin Sens. 1 H317 May cause an allergic skin reaction.

· 2.2 Label elements

· Labelling according to Regulation (EC) No 1272/2008: The product is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS07 GHS09

· Signal word: Warning

· Hazard-determining components of labelling: bis[4-(2,3-epoxypropoxy)phenyl]propane
1,6-bis(2,3-epoxypropoxy)hexane
reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight 700)

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

· Precautionary statements:
P261 Avoid breathing mist/vapours/spray.
P273 Avoid release to the environment.
P280 Wear protective gloves / eye protection / face protection.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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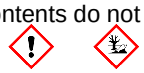
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Labelling of packages where the contents do not exceed 125 ml
· Hazard pictograms



GHS07 GHS09

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1,6-bis(2,3-epoxypropoxy)hexane
reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight 700)

· Hazard statements H317 May cause an allergic skin reaction.
· Precautionary statements
P261 Avoid breathing mist/vapours/spray.
P280 Wear protective gloves.
P302+P352 IF ON SKIN: Wash with plenty of water.
P362+P364 Take off contaminated clothing and wash it before reuse.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· 2.3 Other hazards
· Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.

* SECTION 3: Composition/information on ingredients

· 3.2 Chemical characterisation: Mixtures
· Description: Mixture of substances listed below with nonhazardous additions.

· Dangerous components:

CAS: 1675-54-3 EINECS: 216-823-5 Index number: 603-073-00-2 Reg.nr.: 01-2119456619-26	bis[4-(2,3-epoxypropoxy)phenyl]propane Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	25 – 50%
CAS: 933999-84-9 EC number: 618-939-5 Reg.nr.: 01-2119463471-41	1,6-bis(2,3-epoxypropoxy)hexane Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317; Aquatic Chronic 3, H412	2.5 – 10%
CAS: 9003-36-5 NLP: 500-006-8 Reg.nr.: 01-2119454392-40	reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight 700) Aquatic Chronic 2, H411; Skin Irrit. 2, H315; Skin Sens. 1, H317	2.5 – 10%

· Additional information: For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures
· General information: Immediately remove any clothing soiled by the product.
· After inhalation: Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
· After skin contact: Immediately wash with water and soap and rinse thoroughly.
· After eye contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
· After swallowing: If symptoms persist consult doctor.
· 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
· 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

(Contd. on page 3)

SECTION 5: Firefighting measures

· 5.1 Extinguishing media
· Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.
· 5.2 Special hazards arising from the substance or mixture: No further relevant information available.
· 5.3 Advice for firefighters
· Protective equipment: No special measures required.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures: Not required.
· 6.2 Environmental precautions: Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow to enter sewers/ surface or ground water.
· 6.3 Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
· 6.4 Reference to other sections: See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

· 7.1 Precautions for safe Handling: Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
· Information about fire - and explosion protection: No special measures required.

· 7.2 Conditions for safe storage, including any incompatibilities
· Storage:
· Requirements to be met by storerooms and receptacles: No special requirements.
· Information about storage in one common storage facility: Not required.
· Further information about storage conditions: Keep container tightly sealed.
· Recommended storage temperature: +5 – +30C
· 7.3 Specific end use(s): No further relevant information available.

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

· 8.1 Control parameters
· Ingredients with limit values that require monitoring at the workplace: The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· DNEL (Derived No Effect Level) for workers		
933999-84-9 1,6-bis(2,3-epoxypropoxy)hexane		
Dermal	Long-term - systemic effects, worker	2.8 mg/kg bw/day (Worker)
	Long term - local effects, worker	22.6 µg/cm² (Worker)
Inhalative	Long-term - systemic effects, worker	4.9 mg/m³ (Worker)
	Long-term - local effects, worker	0.44 mg/m³ (Worker)

(Contd. on page 4)

9003-36-5 reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight 700)		
Dermal	Acute - local effects,worker	8.3 µg/cm² (Worker)
	Long-term - systemic effects, worker	104.15 mg/kg bw/day (Worker)
Inhalative	Long-term - systemic effects, worker	29.39 mg/m³ (Worker)

· DNEL (Derived No Effect Level) for the general population		
933999-84-9 1,6-bis(2,3-epoxypropoxy)hexane		
Oral	Acute - systemic effects, general population	0.83 mg/kg bw/day (General population)
	Long-term - systemic effects, general population	0.83 mg/kg bw/day (General population)
Dermal	Acute - systemic effects, general population	1.7 mg/kg bw/day (General population)
	Acute - local effects, general population	13.6 µg/cm² (General population)
	Long-term - systemic effects, general population	1.7 mg/kg bw/day (General population)
	Long-term - local effects, general population	13.6 µg/cm² (General population)
Inhalative	Acute - systemic effects, general population	2.9 mg/m³ (General population)
	Long-term - systemic effects, general population	2.9 mg/m³ (General population)
	Long-term - local effects, general population	0.27 mg/m³ (General population)
9003-36-5 reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight 700)		
Oral	Long-term - systemic effects, general population	6.25 mg/kg bw/day (General population)
Dermal	Long-term - systemic effects, general population	62.5 mg/kg bw/day (General population)
Inhalative	Long-term - systemic effects, general population	8.7 mg/m³ (General population)

· PNEC (Predicted No Effect Concentration) values	
933999-84-9 1,6-bis(2,3-epoxypropoxy)hexane	
Aquatic compartment - freshwater	0.0115 mg/l (Freshwater)
Aquatic compartment - marine water	0.0015 mg/l (Marine water)
Aquatic compartment - water, intermittent releases	0.115 mg/l (Intermittent release water) Aquatic
compartment - sediment in freshwater	0.283 mg/kg sed dw (Sediment freshwater) Aquatic
compartment - sediment in marine water	0.283 mg/kg sed dw (Sediment marine water)
9003-36-5 reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight 700)	
Aquatic compartment - freshwater	0.003 mg/l (Freshwater)
Aquatic compartment - marine water	0.0003 mg/l (Marine water)
Aquatic compartment - water, intermittent releases	0.0254 mg/l (Intermittent release water) Aquatic
compartment - sediment in freshwater	0.294 mg/kg sed dw (Sediment freshwater) Aquatic
compartment - sediment in marine water	0.0294 mg/kg sed dw (Sediment marine water)
Terrestrial compartment - soil	0.237 mg/kg dw (Soil)

· Additional information: The lists valid during the making were used as basis.

· 8.2 Exposure controls
· Personal protective equipment:
· General protective and hygienic measures:
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

· Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

· Protection of hands: Protective gloves
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· Material of gloves Nitrile rubber, NBR
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.
Recommended thickness of the material: 0.3 mm

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· Penetration time of glove material	The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed. For the mixture of chemicals mentioned below the penetration time has to be at least 480 minutes (Permeation according to EN 374 Part 3: Level 6).
· For the permanent contact gloves made of the following materials are suitable:	Nitrile rubber, NBR
· As protection from splashes gloves made of the following materials are suitable:	Nitrile rubber, NBR
· Not suitable are gloves made of the following materials:	Leather gloves Strong material gloves
· Eye protection:	Tightly sealed goggles

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties	
· General Information	
· Appearance:	
Form:	Fluid
Colour:	According to product specification
· Odour:	Characteristic
· Odour threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	Undetermined.
· Flash point:	> 150 °C (Pensky Martens, ASTM D93)
· Flammability (solid, gas):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto-ignition temperature:	Product is not self-igniting.
· Explosive properties:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapour pressure:	Not determined.
· Density at 20 °C:	1.766 g/cm³ (DIN 51757, ASTM D 1298)
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with water:	Not miscible or difficult to mix.
· Partition coefficient: n-octanol/water:	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
VOC (2004/42/EC):	0.00 %
Solids content:	100.0 %
· 9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

· 10.1 Reactivity No further relevant information available.

(Contd. on page 6)

· 10.2 Chemical stability
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· 10.3 Possibility of hazardous reactions No dangerous reactions known.
· 10.4 Conditions to avoid No further relevant information available.
· 10.5 Incompatible materials: No further relevant information available.
· 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

· 11.1 Information on toxicological effects
· Acute toxicity Based on available data, the classification criteria are not met.
· LD/LC50 values relevant for classification:

· Components	Type	Value	Species
933999-84-9 1,6-bis(2,3-epoxypropoxy)hexane			
Oral	LD50	2,900 mg/kg (Rat)	
Dermal	LD50	> 4,900 mg/kg (Rat)	
9003-36-5 reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight 700)			
Oral	LD50	23,800 mg/kg (Rat)	
Dermal	LD50	> 2,000 mg/kg (Rabbit)	

· Primary irritant effect:
· Skin corrosion/irritation Causes skin irritation.
· Serious eye damage/irritation Causes serious eye irritation.
· Respiratory or skin sensitisation May cause an allergic skin reaction.
· CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)
· Germ cell mutagenicity Based on available data, the classification criteria are not met.
· Carcinogenicity Based on available data, the classification criteria are not met.
· Reproductive toxicity Based on available data, the classification criteria are not met.
· STOT-single exposure Based on available data, the classification criteria are not met.
· STOT-repeated exposure Based on available data, the classification criteria are not met.
· Aspiration hazard Based on available data, the classification criteria are not met.

SECTION 12: Ecological information

· 12.1 Toxicity
· Aquatic toxicity: No further relevant information available.
· 12.2 Persistence and Degradability No further relevant information available.
· 12.3 Bioaccumulative potential No further relevant information available.
· 12.4 Mobility in soil No further relevant information available.
· Ecotoxical effects:
· Remark: Toxic for fish
· Additional ecological information:
· General notes: Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
· 12.5 Results of PBT and vPvB assessment
· PBT: Not applicable.
· vPvB: Not applicable.
· 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods
· Recommendation Must not be disposed together with household garbage. Do not allow product to reach sewage system.

(Contd. on page 7)

· European waste catalogue	
08 00 00	WASTES FROM THE MANUFACTURE, FORMULATION, SUPPLY AND USE (MFSU) OF COATINGS (PAINTS, VARNISHES AND VITREOUS ENAMELS), ADHESIVES, SEALANTS AND PRINTING INKS
08 01 00	wastes from MFSU and removal of paint and varnish
08 01 99	wastes not otherwise specified
HP 4	Irritant - skin irritation and eye damage
HP 13	Sensitising
HP 14	Ecotoxic

· Uncleaned packaging:
· Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

· 14.1 UN-Number
· ADR/RID/ADN, IMDG, IATA: UN3082

· 14.2 UN proper shipping name
· ADR/RID/ADN: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight 700), reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight 700))
· IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight 700), reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight 700)), MARINE POLLUTANT
· IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight 700), reaction product: bisphenol-F-(epichlorhydrin) epoxy resin (number average molecular weight 700))

14.3 Transport hazard class(es)

· ADR/RID/ADN
· Class: 9 (M6) Miscellaneous dangerous substances and articles.
· Label: 9

· IMDG, IATA
· Class: 9 Miscellaneous dangerous substances and articles.
· Label: 9

· 14.4 Packing group
· ADR/RID/ADN, IMDG, IATA: III

14.5 Environmental hazards:

Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight 700)

· Marine pollutant: Yes
Symbol (fish and tree)

· Special marking (ADR/RID/ADN): Symbol (fish and tree)
Special marking (IATA): Symbol (fish and tree)

· 14.6 Special precautions for user: Warning: Miscellaneous dangerous substances and articles.
· Danger code (Kemler): 90
· EMS Number: F-A,S-F
· Stowage Category: A

· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code: Not applicable.

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· Transport/Additional information:	
· ADR/RID/ADN	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 100ml Maximum net quantity per outer packaging: 5000 ml
· Transport category	3
· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 100 ml Maximum net quantity per outer packaging: 5000 ml
· Remarks:	In packaging up to 30 litres exempt according to IMDG 2.3.2.5.
· UN "Model Regulation":	UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (REACTION PRODUCT: BISPHENOL-A-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT 700), REACTION PRODUCT: BISPHENOL-F-(EPICHLORHYDRIN) EPOXY RESIN (NUMBER AVERAGE MOLECULAR WEIGHT 700)), 9, III

SECTION 15: Regulatory information

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

· Directive 2012/18/EU	
· Named dangerous substances - ANNEX I	None of the ingredients is listed.
· Seveso category	E2 Hazardous to the Aquatic Environment
· Qualifying quantity (tonnes) for the application of lower-tier requirements	200 t
· Qualifying quantity (tonnes) for the application of upper-tier requirements	500 t
· REGULATION (EC) No 1907/2006 ANNEX XVII	Conditions of restriction: 3
· 15.2 Chemical safety assessment:	A Chemical Safety Assessment has not been carried out.

*
SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Relevant phrases	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H411 Toxic to aquatic life with long lasting effects. H412 Harmful to aquatic life with long lasting effects.
· Classification according to Regulation (EC) No 1272/2008	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.
· Department issuing SDS:	Research and Development
· Abbreviations and acronyms:	RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail) ICAO: International Civil Aviation Organisation ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road) IMDG: International Maritime Code for Dangerous Goods IATA: International Air Transport Association GHS: Globally Harmonised System of Classification and Labelling of Chemicals EINECS: European Inventory of Existing Commercial Chemical Substances ELINCS: European List of Notified Chemical Substances CAS: Chemical Abstracts Service (division of the American Chemical Society) VOC: Volatile Organic Compounds (USA, EU) DNEL: Derived No-Effect Level (REACH)

(Contd. on page 9)

PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
Skin Irrit. 2: Skin corrosion/irritation – Category 2
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
Skin Sens. 1: Skin sensitisation – Category 1
Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2
Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· Sources: Literature data and/or investigation reports are available through the manufacturer.

· * Data compared to the previous version altered.