

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

· 1.1 Product identifier

· Trade name **TransCast Clear Epoxy Casting Resin Part B (Medium)**

· Utilization of the substance of the formulation: Hardener for epoxy resin

· 1.2 Relevant identified uses of the substance or mixture and uses advised against
No further relevant information available.

· Application for the substance / the preparation hardener for epoxy resin

· 1.3 Details of the supplier of the safety data sheet

· Supplier:

Europol
9 Birchills Trading Estate
Emery Road
Bristolington
Bristol BS4 5PF
e-mail: sales@europoluk.com

· Further information obtainable from: environment protection department

· 1.4 Emergency telephone number:

During normal opening times (8am - 5 pm)
phone : +44 (0) 117 9715500

SECTION 2: Hazards identification

· 2.1 Classification of the substance or mixture

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



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS09 environment

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



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

· 2.2 Label elements

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

The substance is classified and labelled according to the CLP regulation.

· Hazard pictograms



GHS05



GHS07



GHS09

· Signal word **Danger**

· Hazard-determining components of labelling:

Polyetheramin

· Hazard statements

H302+H312 Harmful if swallowed or in contact with skin.

H318 Causes serious eye damage.

H411 Toxic to aquatic life with long lasting effects.

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Precautionary statements

- P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P273 Avoid release to the environment.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P312 **IF SWALLOWED:** Call a POISON CENTER/doctor if you feel unwell.
 P305+P351+P338 **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P310 Immediately call a POISON CENTER/doctor.
 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: 39423-51-3	Polyetheramin	75-100%
Reg.nr.: 01-2119556886-20-xxxx	 Eye Dam. 1, H318;  Aquatic Chronic 2, H411;  Acute Tox. 4, H302; Acute Tox. 4, H312	

- **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.

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

After inhalation:

Call a doctor immediately.

In case of unconsciousness place patient stably in side position for transportation.

After skin contact:

Get medical attention immediately. Poison center or a doctor to call. Wash with plenty of soap and water. Contaminated clothing and shoes off. Wash contaminated clothing

thoroughly with water before they

take off or wear gloves while. At least 10 minutes while rinse. Chemical burns must be treated promptly by a physician. In the case of Complaints or symptoms, avoid further exposure.

clothing before Wash after handling.

Clean shoes thoroughly

before reuse.

After eye contact:

Get medical attention immediately. Poison center or a doctor

to call. Immediately flush eyes with plenty of water, occasionally lifting the upper and

lower eyelids. Keep person warm and at rest remove. Continue to rinse for at least 10 minutes. Chemical burns must immediately be treated by a doctor.

Rinse opened eye for several minutes under running water. Then consult a doctor.

After swallowing:

Get medical attention immediately. Poison center or a doctor to call. Wash out mouth with water.

Get medical attention if any remove. Move the exposed person to fresh air and in a position keep at rest, comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water enter. At Nausea not to drink more, as vomiting may be dangerous. no Induce vomiting unless directed to do so by medical Staff. If vomiting occurs, keep head low so that vomit does not penetrate into the lungs. Chemical burns must be treated immediately by a doctor be. Never an unconscious person

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anything by mouth. If unconscious, place in recovery position and get medical attention immediately attention. Maintain an open airway. Loosen tight clothing (eg Collar, tie, belt or waistband) loose
If swallowed, rinse mouth with water (only if the person is conscious).
Call for a doctor immediately.
Drink plenty of water and provide fresh air. Call for a doctor immediately.

- **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.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
Use fire extinguishing methods suitable to surrounding conditions.
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
In case of fire, the following can be released:
Carbon monoxide (CO)
carbon dioxide
toxic fume
nitrogen dioxide
- **5.3 Advice for firefighters**
- **Protective equipment:**
Wear fully protective suit.
Do not inhale explosion gases or combustion gases.
Wear self-contained respiratory protective device.
- **Additional information**
Cool endangered receptacles with water spray.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective clothing.
No action shall be taken involving any personal risk go hand in hand. Evacuate surrounding areas. Unprotected personnel from entering. Do not touch spilled material. Do not breathe vapor or mist. Ensure adequate ventilation. In case of insufficient ventilation wear suitable respiratory equipment. Put on appropriate personal protective equipment.
- **6.2 Environmental precautions:**
Avoid dispersal and the dispersal of spilled material and contact with soil, waterways, drains and sewers. the
Inform the relevant authorities if environmental impact of the product pollution (sewers, waterways, soil or air).
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).
Use neutralising agent.
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.

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SECTION 7: Handling and storage

· 7.1 Precautions for safe handling

Put on appropriate personal protective equipment (see section 8). persons with a history of skin sensitization problems should not perform work for which this product is used.

Avoid exposure - obtain special instructions before Refer to special instructions.

Avoid exposure during pregnancy.

before Read and understand all safety precautions.

Do not get in eyes or on the skin or can be spilled on clothes.

Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation.

In case of insufficient Ventilation breathing apparatus.

In the original container or an approved Keep spare container, which was made from a compatible material.

Kept tightly closed when not in use. Keep away from acids. Empty containers retain product residue and can be hazardous.

not container reuse

Take care by opening

Ensure good ventilation/exhaustion at the workplace.

Prevent formation of aerosols.

· Information about fire - and explosion protection:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

· 7.2 Conditions for safe storage, including any incompatibilities

· Storage:

· Requirements to be met by storerooms and receptacles:

Keep container tightly closed and dry and storage in a good ventilated room.

Storage temperature: 20 - 25 °C.

· Information about storage in one common storage facility:

Do not store together with reducing agents, heavy-metal compounds, acids and alkalis.

Store away from foodstuffs.

· Further information about storage conditions:

Protect from heat and direct sunlight.

Protect from humidity and water.

Keep container tightly sealed.

· Storage class: 8 A

· 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.

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

· 8.2 Exposure controls

· Personal protective equipment:

· General protective and hygienic measures:

Wash hands after handling chemical products, before the end of the working day

as well as before eating, smoking and using the toilet thoroughly hands, forearms and face.

Appropriate techniques to remove potentially contaminated clothing.

Contaminated work clothing should not be allowed out of the workplace.

Wash contaminated clothing before reusing.

Ensure that eyewash stations and safety showers are close to the work area.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

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Wash hands before breaks and at the end of work.

Avoid contact with the eyes and skin.

· **Respiratory protection:**

In case of inadequate ventilation wear respiratory protection. Selecting

Respirators must be based on known or anticipated

exposure levels, the hazards of the product and the

Working limits of the selected respirator.

Kobinationsfilter for organic gases and vapors with a particle filter, type AP2



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.

Not necessary if room is well-ventilated.

· **Protection of hands:**

Preventive skin protection (3-point program) required

Gloves approved to relevant standards as EN 374 (Europe) and F739 (U.S.)

tested gloves are used. Suitability and durability of a Glove is dependent on usage, for example frequency and duration of contact,

chemical resistance of glove material and dexterity Always seek advice from glove suppliers.



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**

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 can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

Suitable materials for protective gloves, EN 374-3:

Polychloroprene - CR: thickness > = 0.5 mm, breakthrough time > = 480 min.

NBR - NBR: thickness > = 0,35 mm, Breakthrough time > = 480 min.

Butyl rubber - IIR: thickness > = 0.5 mm, breakthrough time > = 480 min.

Fluorine rubber - FKM: thickness > = 0.4 mm; breakthrough time > = 480 min.

Recommendation: Dispose of contaminated gloves ..

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Not suitable are gloves made of the following materials:** Strong material gloves

· **Eye protection:**



Tightly sealed goggles

· **Body protection:** Protective work clothing

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SECTION 9: Physical and chemical properties

· **9.1 Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

· Form:	Fluid
· Colour:	Blue
· Odour:	Ammonia-like
· 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:** >100 °C

· **Flammability (solid, gas):** Not applicable.

· **Ignition temperature:**

· **Decomposition temperature:** Not determined.

· **Auto-ignition temperature:** Product is not selfigniting.

· **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:	0,96 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
· Evaporation rate	Not determined.

· **Solubility in / Miscibility with water:** Insoluble.

· **Partition coefficient: n-octanol/water:** Not determined.

· **Viscosity:**

· Dynamic:	Not determined.
· Kinematic:	Not determined.

· **Solvent content:**

· **VOC (EC)** 0.0 g/l

· **9.2 Other information** No further relevant information available.

SECTION 10: Stability and reactivity

· **10.1 Reactivity** No further relevant information available.

· **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**

Moisture. Heat, open flames and other ignition sources. With contaminated pipes and tanks or corroded or rusty containers may lead to increased formation of hydrogen. Detail in section 7.

· **10.5 Incompatible materials:**

acid , chlorinated hydrocarbon , oxidizing agents , copper and copper alloy , nickel , cobalt .

· **10.6 Hazardous decomposition products:**

Ammonia

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Nitrogen oxides

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SECTION 11: Toxicological information

· **11.1 Information on toxicological effects**

· **Acute toxicity**

Harmful if swallowed or in contact with skin.

· **LD/LC50 values relevant for classification:**

39423-51-3 Polyetheramin

Oral	LD50	550 mg/kg (Ratte)
Dermal	LD50	1,800 mg/kg (Ratte)

· **Primary irritant effect:**

· **Skin corrosion/irritation** Based on available data, the classification criteria are not met.

· **Serious eye damage/irritation**

Causes serious eye damage.

· **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

· **CMR effects (carcinogenicity, 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.

· **Other information:** Elimination by adsorption onto activated sludge

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Toxic for fish

· **Additional ecological information:**

· **General notes:**

Must not reach sewage water or drainage ditch undiluted or unneutralised.

Also poisonous for fish and plankton in water bodies.

Toxic for aquatic organisms

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.

· **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**

The generation of waste should be avoided or minimized wherever possible.

Significant quantities of waste product residue should not exceed the Sewer to be disposed of, but in a suitable Wastewater treatment plant to be treated.

Surpluses, and not for Recyclable products via a licensed waste disposal company discard.

Disposal of this product, solutions and any By-products should at all times comply with the environmental

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protection requirements
and waste disposal legislation and any regional local authority requirements carried out.
Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue	
16 03 05*	organic wastes containing hazardous substances
07 01 99	wastes not otherwise specified

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

SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	UN3082
· 14.2 UN proper shipping name · ADR · IMDG · IATA	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyetheramin) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyetheramin), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Polyetheramin)
· 14.3 Transport hazard class(es) · ADR  · Class · Label	9 (M6) Miscellaneous dangerous substances and articles. 9
· IMDG, IATA  · Class · Label	9 Miscellaneous dangerous substances and articles. 9
· 14.4 Packing group · ADR, IMDG, IATA	III
· 14.5 Environmental hazards: · Marine pollutant: · Special marking (ADR): · Special marking (IATA):	Product contains environmentally hazardous substances: Polyetheramin Yes Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
· 14.6 Special precautions for user · Danger code (Kemler): · EMS Number: · Segregation groups · Stowage Category	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F Alkalis A

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- **14.7 Transport in bulk according to Annex II of Marpol and the IBC Code** *Not applicable.*
- **Transport/Additional information:**
- **ADR**
- **Limited quantities (LQ)** 5L
- **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
- **Transport category** 3
- **IMDG**
- **Limited quantities (LQ)** 5L
- **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
- **UN "Model Regulation":** *UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (POLYETHERAMIN), 9, III*

SECTION 15: Regulatory information

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Labelling according to Regulation (EC) No 1272/2008**
The substance is classified and labelled according to the CLP regulation.
- **Hazard pictograms**



GHS05 GHS07 GHS09

- **Signal word** *Danger*
- **Hazard-determining components of labelling:**
Polyetheramin
- **Hazard statements**
H302+H312 Harmful if swallowed or in contact with skin.
H318 Causes serious eye damage.
H411 Toxic to aquatic life with long lasting effects.
- **Precautionary statements**
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P273 Avoid release to the environment.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **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*

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- **National regulations:**
- **Waterhazard class:** Water hazard class 2 (Self-assessment): hazardous for water.
- **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

- H302 Harmful if swallowed.*
- H312 Harmful in contact with skin.*
- H318 Causes serious eye damage.*
- H411 Toxic to aquatic life with long lasting effects.*

· Department issuing SDS: environment protection department**· 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)*
- LC50: Lethal concentration, 50 percent*
- LD50: Lethal dose, 50 percent*
- PBT: Persistent, Bioaccumulative and Toxic*
- vPvB: very Persistent and very Bioaccumulative*
- Acute Tox. 4: Acute toxicity – Category 4*
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1*
- Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2*

· * Data compared to the previous version altered.