

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product Identifier

Product / Substance name: Treadmaster Marine Epoxy Resin Part B - NEW Formula

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

Identified uses: Adhesives, sealants.

1.3. Details of the supplier of the Safety Data Sheet

Company name: Tiflex Limited
Address: Tiflex House
Liskeard, Cornwall
PL14 4NB.
UNITED KINGDOM
Telephone: +44 (0)1579 320808
Fax: +44 (0)1579 320802
E-mail: sward@tiflex.co.uk Steve Ward - Technical Manager

1.4. Emergency telephone number

Emergency tel: +44 (0)1579 320808 Only available during office hours Mon-Thurs 9am - 5 pm, Fri 9am - 2pm

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture:

2.1.1 Classification according to Regulations (EC) No 1272/2008 (CLP)

Physical hazards: Not classified.
Health hazards: Acute Tox. 4 - H302. Skin Corr. 1B - H314. Eye Dam. 1 - H318. Skin Sens. 1 - H317
Environmental hazards: Aquatic Chronic 2 - H411
Human Health: May cause sensitisation or allergic reactions in sensitive individuals.
Environmental: The Product contains a substance which is toxic to aquatic organisms.

2.2 Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements: H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
H317 May cause an allergic skin reaction.
H411 Toxic to aquatic life with long lasting effects.
EUH205 Contains epoxy constituents. May produce an allergic reaction.

Precautionary statements:

P260 Do not breathe vapours.
P273 Avoid release to the environment.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
P281 Use personal protective equipment as required.
P284 [in case of inadequate ventilation] wear respiratory protection.
P305+ 351+ 338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P313 Get medical advice/ attention

P501 Dispose of contents / container to national regulations.

Supplemental Hazard Information:

Contains: TETRAETHYLENEPENTAMINE, phenol, styrolisiert, trimethylhexane-1,6-diamine, m-phenylenebis(methylamine), phenol, methylstyrolisiert, reaction products of propane-1,2-diol, propoxylated by animation of the terminal hydroxyl groups, salicylic acid.

Supplementary precautionary statements:

P261 Avoid breathing vapour / spray.
 P264 Wash contaminated skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P272 Contaminated work clothing should not be allowed out of the workplace.
 P301 + 312 IF SWALLOWED: Call a POISON CENTRE or doctor / physician if you feel unwell.
 P301 + 330 + 331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 P302 + 352 IF ON SKIN: Wash with plenty of soap and water.
 P303 + 361 + 353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
 P304 + 340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P310 Immediately call a POISON CENTRE / doctor.
 P312 Call a POISON CENTRE or doctor / physician if you feel unwell.
 P321 Specific treatment (see medical advice on this label)
 P322 Specific measures (see advice on this label)
 P330 Rinse mouth.
 P333 + 313 If skin irritation or rash occurs: Get medical advice / attention.
 P363 Wash contaminated clothing before reuse.
 P391 Collect spillage.
 P405 Store locked up.

2.3 Other hazards

PBT/vPvB: This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.2. Mixtures

Hazardous Ingredients

CAS No.	EC No.	Index No.	REACH Registration No.	Identification name	% Weight	Classification according to Regulation (EC) No 1278/2008 (CLP)
112-57-2	203-986-2			TETRAETHYLENEPENTAMINE	30 - 60	Skin Corr. 1 B - H314 Skin Sens. 2 - H317 Acute Tox. 4 - H302 Acute Tox. 4 - H312 Eye Dam. 1 - H318 Aquatic Chronic 2 - H411
61788-44-1				phenol, styrolisiert	10 - 30	Skin Irrit. 2 - H315 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411
25513-64-8				triethylhexane-1,6-diamine	10 - 30	Skin Corr. 1 B - H314 Skin Sens. 1 - H317 Acute Tox. 4 - H302 Eye Dam. 1 - H318 Aquatic Chronic 3 - H412
1477-55-0			01-2119480150-50-XXXX	m-phenylenebis(methylamine)	5 - 10	Skin Corr. 1 B - H314 Skin Sens. 1 - H317 Acute Tox. 4 - H302 Acute Tox. 4 - H332 Eye Dam. 1 - H318
68512-30-1			01-2119555274-38-XXXX	phenol,methylstyrolisiert	5 - 10	Skin Irrit. 2 - H315 Skin Sens. 1 - H317
			01-2119557899-12-XXXX	reaction products of propane-1,2-diol, propoxylated by animation of the terminal hydroxyl groups	1 - 5	Skin Corr. 1 B - H314 Eye Dam. 1 - H318

69-72-7		01-2119486984-17-XXXX	salicylic acid	1 - 5	Eye Dam. 1 - H318 Acute Tox. 4 - H302
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SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Information:	Remove affected person from source of contamination. In all cases of doubt, or when symptoms persist, seek medical attention.
Following inhalation:	Remove victim to fresh air immediately, ensuring one's own safety first, keep warm at rest and in a position comfortable for breathing, get medical attention. If patient is unconscious, place in the recovery position and seek medical help immediately.
Following skin contact:	Remove all contaminated clothing and laundry before reuse. Wash the affected area with clean running water for at least 15 minutes. If any soreness or irritation occurs as the result of skin exposure, or if any discomfort or symptoms persist seek medical advice.
Following eye contact:	Rinse immediately with plenty of water. Remove any contact lenses if present and easy to do and open the eye wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any irritation persists after washing. Show this Safety Data Sheet to the medical personnel.
Following ingestion:	DO NOT INDUCE VOMITING. If material is accidentally swallowed, do not make patient vomit, seek medical attention immediately and the label or safety data sheet information should be taken with the patient when seeking medical advice.
Self protection for first aider:	Keep yourself protected, assess your surroundings, be cautious of any fumes or vapours. On approach always put on your gloves.

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

General Information:	The severity of the symptoms described will vary dependent on the concentration and the length of exposure.
Inhalation:	Irritation of nose, throat and airway. Coughing, chest tightness, feeling of pressure in the chest.
Skin contact:	Causes severe skin burns and eye damage. Causes severe skin and eye irritation.
Eye contact:	Causes severe skin burns and eye damage. Causes severe skin and eye irritation.
Ingestion:	May cause discomfort if swallowed.

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

Inhalation:	If you feel unwell, seek medical advice (show the label where possible).
Skin contact:	Seek medical attention if irritation or symptoms persist.
Eye contact:	Seek medical attention.
Ingestion:	If you feel unwell, seek medical advice (show the label where possible).

SECTION 5: FIRE FIGHTING MEASURES

5.1. 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.

5.2. Special hazards arising from the substance or mixture

Specific Hazards:	The product is non-combustible. Irritating gases or vapours not known.
Hazardous combustion products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

5.3. Advice for Fire-fighters

Protective actions during fire-fighting:	Containers close to fire should be removed or cooled with water. Do not allow water to contact any leaked material.
Advice for fire-fighters:	Wear chemical protective suit. Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

- 6.1.1 For non-emergency personnel: Ensure adequate ventilation of the area. Avoid contact with skin and eyes. Wear suitable protective equipment (see Section 8 for Personal Protective Equipment).
- 6.1.2. For emergency responders: Wear suitable protective equipment (see Section 8 for Personal Protective Equipment).

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or watercourses or onto the ground.

6.3. Methods and materials for containment and cleaning up

- 6.3.1. For containment: Contain spillage with appropriate bunding use sand earth or other suitable non-combustible material or absorbent. Prevent spillage runoff from entering drains, sewers and water courses.
- 6.3.2. For cleaning up: Absorb spill with non-combustible, absorbent material. Collect into suitable waste disposal containers and seal securely. Provide adequate ventilation of the area. Avoid spillage runoff entering drains, sewers or water courses.
- 6.3.3. Other information: Wear protective clothing as described in Section 8 of this safety data sheet.

6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for more detailed information on health effects and symptoms. For waste disposal, see Section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

- Protective measures: Avoid inhalation of vapours and spray / mists. Avoid contact with skin and eyes. Do not use in confined spaces without adequate ventilation and / or respirator.
- Measures to prevent fire: This product is non-combustible
- Measures to prevent aerosol and dust generation: Spraying is permitted only in closed systems, spray cabinets or spray boxes with adequate ventilation.
- Measures to protect the environment: Adopt best Manual handling considerations when handling, carrying and dispensing.
- Advice on general occupational hygiene: Observe best practice when handling, wash thoroughly after use. Strictly no eating or drinking when handling this product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions: Store in closed original container at temperatures between 5°C and 25°C.
- Packaging materials: Store in original packaging only.
- Requirements for storage rooms and vessels: All chemical preparations / mixtures should be stored securely where they cannot be interfered with or used by unauthorised persons.
- Storage class: Chemical storage.

7.3. Specific end use (s)

- Recommendations: The identified uses for this product are detailed in Section 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTIVE EQUIPMENT

8.1. Control parameters

- Workplace exposure limits: WEL = Workplace exposure limits.

8.2. Exposure controls

Protective equipment:



- 8.2.1. Appropriate engineering controls: Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.

8.2.2. Personal protection equipment:

- 8.2.2.1 Hygiene measures: Use engineering controls to reduce air contamination to permissible exposure level. Wash hands after handling. When using do not eat, drink or smoke.
- 8.2.2.2.a Eye protection: Wear chemical splash goggles.
- 8.2.2.2.b Skin protection: Hand protection: Chemical resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. It is recommended that gloves are made of the following material: Nitrile rubber.
Other skin protection: Wear protective clothing as protection against splashing or contamination. Wear apron or protective clothing in case of contact.
- 8.2.2.2.c Respiratory protection: If ventilation is inadequate, suitable respiratory protection must be worn. In confined or poorly-ventilated spaces, a supplied-air fed respirator must be worn. Wear a respirator fitted with the following cartridge: Gas filter type AX.
- 8.2.2.2.d Thermal hazards: The molten product can cause serious burns.
- 8.2.3.Environmental exposure controls: Keep container tightly sealed when not in use.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Appearance:	Coloured liquid.
Odour:	Characteristic
Odour threshold:	Not available.
pH:	Not available.
Melting/freezing point:	Not applicable.
Initial boiling point and boiling range:	Not applicable.
Flash point:	>200°C CC (Closed cup).
Evaporation rate:	Slow.
Flammability (solid/gas):	Not available.
Upper/lower flammability or explosive limits:	Not applicable.
Vapour pressure:	Not available.
Vapour density:	Not applicable.
Relative density:	1.06 @ 20°C
Solubility:	Insoluble in water. Hardens in contact with water.
Partition coefficient: n-octanol/water:	Not available.
Auto-ignition temperature:	>600°C
Decomposition temperature:	Not available.
Viscosity:	Kinematic viscosity > 20.5 mm ² /s.
Explosive properties:	Not available.
Oxidising properties:	Not available.

9.2. Other Information

Other information:	No information required.
Refractive Index:	Not available.
Particle size:	Not available.
Molecular weight:	Not available.
Volatility:	Not available.
Saturation concentration:	Not available.
Critical temperature:	Not available.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Reactivity: The product will harden into a solid mass in contact with water and moisture.

10.2. Chemical stability

Chemical stability: Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Hazardous reactions: Not applicable. May polymerise.

10.4. Conditions to avoid

Conditions to avoid: Avoid contact with water. Strong alkalis.

10.5. Incompatible materials

Materials to avoid: Strong acids . Strong alkalis.

10.6. Hazardous decomposition products

Haz. Decomp. Products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours. Oxides of carbon. Oxides of nitrogen.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Acute toxicity:	ATE oral (mg/kg)	841.75
	ATE dermal (mg/kg)	2,972.97
	ATE inhalation (gases ppm)	53,571.43
	ATE inhalation (vapours mg/l)	130.95
	ATE inhalation (dusts / mists mg/l)	17.86

Skin corrosion / irritation:

Animal data Irritating.

Serious eye damage / irritation: Moderately irritating.

Respiratory or skin sensitisation: Data lacking.

Carcinogenicity:

Target organ for carcinogenicity: No specific target organs known.

Reproductive toxicity: The substance has no evidence of toxicity to reproduction.

Specific target organ toxicity - single exposure: May cause respiratory system irritation The product contains epoxy resin.

Specific target organ toxicity - repeated exposure: Not available.

Aspiration hazard: Not anticipated to present an aspiration hazard, based on chemical structure.

Route of entry: Inhalation, Skin and / or eye contact.

Skin contact: Causes severe skin burns and eye damage. May irritate the eyes and skin.

Eye contact: Causes severe skin burns and eye damage.

Ingestion: May cause stomach pain or vomiting.

Inhalation: Irritating to respiratory system.

Delayed/Immediate effects: Irritation of eyes and mucous membranes. Coughing, chest tightness, feeling of chest pressure.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity: Dangerous for the environment.

12.1. Toxicity

Acute (short term) toxicity:	Fish:	LC50	96 hours	> 1000 mg/l	Freshwater fish
	Aquatic Invertebrates:	EC ₅₀	48 hours	> 500 mg/l	Daphnia magna
	Aquatic plants:	EC ₅₀	72 hours	~ 1640 mg/l	Scenedesmus subspicatus

12.2. Persistence and degradability

Persistence and degradability:	The product is not readily biodegradable.
Stability (hydrolysis):	Reacts with water.
Biological oxygen demand:	< 10 O ₂ /g substance.

12.3. Bioaccumulative potential

Bioaccumulative potential:	The product does not contain any substances expected to be bioaccumulating.
Partition coefficient:	Not available.

12.4. Mobility in soil

Mobility:	The product is non-volatile
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12.5. Results of PBT and vPvB assessment

PBT / vPvB:	This product does not contain any substances classified as PBT or vPvB.
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12.6. Other adverse effects

Other adverse effects:	No other adverse effects noted.
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12.7. Additional information

No additional information.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

General information:	Waste should be treated as controlled waste. Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.
Disposal methods:	Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: TRANSPORTATION INFORMATION

14.1. UN Number

UN No.:	2735
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14.2. UN proper shipping name

Proper shipping name:	AMINES, LIQUID, CORROSIVE, N.O.S. (Tetraethylenepentamine)
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14.3. Transport hazard class(es)

Class:	8	Transport labels:	
Classification code:	C7		
ADR /RID label:	8		

14.4. Packing group

Packing group:	II
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14.5. Environmental hazards

Environmentally hazardous substance / marine pollutant.



14.6. Special precautions for user

EmS:	F-A, S-B
ADR Transport category:	2
Emergency Action Code:	2X
Hazard Identification Number:	80
Tunnel restriction code:	(E)
Transport category:	

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code"

SECTION 15: REGULATORY INFORMATION

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

National regulations:	Health and Safety at Work etc. Act 1974 (as amended). The Control of Substances Hazardous to Health Regulations 2002 (SI 2002 No. 2677)(as amended) Control of Pollution Act 1974.
EU Legislation:	Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)(as amended).

15.2. Chemical Safety Assessment

Chemical Safety Assessment:	No Chemical Safety Assessment has been carried out for this substance/mixture by the supplier.
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SECTION 16: OTHER INFORMATION

Hazard statements in full:	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.
	H332	Harmful if inhaled.
	H411	Toxic to aquatic life with long lasting effects.
	H412	Harmful to aquatic life with long lasting effects.
	EUH205	Contains epoxy constituents. May produce an allergic reaction.
Store between:	Store between 5°C and 25°C	

Information on this Health and Safety Data Sheet is drawn from a variety of sources, including raw material suppliers data, and other published sources.

This 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 as to its accuracy, reliability or completeness. It is the user's responsibility to satisfy his/herself as to the suitability of such information for his/her own particular use. This product falls within the scope of the Control of Substances Hazardous to Health (COSHH) Regulations. Users are reminded that this document does not in itself constitute an assessment of workplace risk as required by those regulations.