BIOSYMPH LIMITED

MATERIAL SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**FlexsoTar™**
Product Code:	**FT - xxx**
Product Use:	**2 Part General purpose Epoxy Resin paste System Part A and Part B (curing agent) for repair and gap filling.**
New Zealand Supplier:	Biosymph Limited
Address:	2287 Kakaramea Road RD10 Whatawhata 3290 Hamilton
Telephone:	+64 (0)7 829 8606 or +64 (0)22 607 6400 (mob)
eMail:	admin@biosymph.co.nz
Emergency Telephone:	**0800 76 47 66** (National Poisons Centre)
Date of MSDS Preparation:	13 February 2018 version 1

Section 2. Hazards Identification

This material is hazardous according to health criteria of ERMA New Zealand

Signal Word:	WARNING
Risk phrases:	Irritating to eyes and skin. May cause sensitization by skin contact
Environmental hazard:	Toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.
Other hazards:	Not classified as flammable but will burn.

HSNO Hazard Classification
6.3A Substances that are irritating to the skin
6.4A Substances that are irritating to the eye
6.5B Substances that are contact sensitisers
6.6B Substances that are suspected human mutagens
9.1B Substances that are ecotoxic in the aquatic environment

Hazard Statement(s)
H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H341 Suspected human mutagens
H411 Toxic to aquatic life with long lasting effects

Prevention Precautionary Statement(s)
P103 Read label before use
P261 Avoid breathing dust, fume, gas, mist, vapours or spray
P264 Wash hands, face and all exposed skin thoroughly after handling
P272 Contaminated work clothing should not be allowed out of the workplace
P273 Avoid release to the environment
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator

Response Precautionary Statement(s)
P302+352 IF ON SKIN: Wash with soap and water
P332+313 If skin irritation occurs: Get medical advice/attention
P362 Take off contaminated clothing and wash before reuse
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing
P337+313 If eye irritation persists get medical advice/attention

Storage Precautionary Statement(s)
Not allocated

Disposal Precautionary Statement(s)
P501 Dispose of contents/container in accordance with local, regional, national and international regulations
Classified as Dangerous Goods by the criteria of the "New Zealand NZS5433: Transport of Dangerous Goods on Land".
Class: 9 Miscellaneous Dangerous Goods

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Epoxy resin (Bisphenol-A)	40%	25068-38-6
Bisphenol F. epichlorohydrin resin	<30%	28064-14-4
Aliphatic glycidylether	<15%	68081-84-5

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	DO NOT DELAY. Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.
If on Skin	DO NOT DELAY. Remove all contaminated clothes and footwear immediately, unless stuck to skin. Drench the affected skin with running water for 10 minutes or longer if substance is still on skin. Transfer to hospital if there are burns or symptoms of poisoning
If Ingested	DO NOT induce vomiting. If conscious, give 1 pint water to drink immediately. If unconscious and breathing is OK, place in recovery position. Transfer to hospital as soon as possible.
If Inhaled	No specific measures.

PPE for First Aiders: Wear overalls, safety glasses and impervious gloves. Available information suggests that gloves made from nitrile rubber should be suitable for intermittent contact. However, due to variations in glove construction and local conditions, the user should make a final assessment. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storing or re-using.

Notes to physician: Treat symptomatically.

Section 5. Fire Fighting Measures

Suitable Extinguishing media	Foam, water spray or fog. Unsuitable extinguishing media is water jet. Use water spray to cool containers.
Surrounding fires	Use water spray or fog for cooling exposed containers.
Protection against fire	Do not enter dire area without proper protection. Respiratory protection equipment may be necessary.
Special procedures	Exercise caution when fighting any chemical fire. Avoid (reject) firefighting water to enter environment.
Exposure hazards	Not classified as flammable but will burn. Carbon monoxide may evolve if incomplete combustion occurs.

Section 6. Accidental Release Measures

Personal precautions — Equip clean-up crew with proper protection. Respiratory protection equipment may be necessary

Environmental precautions — Contain spillage using bunding. Do not discharge into drains or rivers. Do not contaminate surface water – avoid subsoil penetration. If material enters drains it should be pumped out into an open vessel; emergency services should be called to assist in this operation.

Methods for cleaning — Absorb into dry earth or sand, transfer to a closable, labeled container for disposal by appropriate method. Scrub contaminated waste. Put leaking containers in a labeled drum or overdrum. Refer to section 13 of this MSDS for suitable method of disposal.

Dangerous Goods – Initial Emergency Response Guide No: 47

Section 7. Handling and Storage

Precautions in handling and storage — Both local exhaust and general room ventilation are usually required.

Storage — Store in dry, well-ventilated areas.
Pallatised loads should be stacked to maximum of 4 high.

This material is classified as a Dangerous Good Class 9 Miscellaneous Dangerous as per the criteria of the New Zealand NZS 5433: Transport of Dangerous Goods on Land and must be stored in accordance with the relevant regulations.

Handling — Avoid skin and eye contact. Handle in accordance with good industrial hygiene and safety procedures. Ensure prompt removal from skin eyes and clothing. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Section 8 Exposure Controls / Personal Protection

National occupational exposure limits: No value assigned for this specific material by the Department of Labour New Zealand.

Personal protection:

Respiratory protection — No special respiratory protection equipment is recommended under normal conditions of use with adequate ventilation. Keep containers closed when not in use.

Skin protection — Protective gloves, Nitrile or Butyl.
Eye protection — Safety glasses and suitable eyewash bottle with clean water.
Ingestion — When using, do not eat, drink or smoke.

Section 9 Physical and Chemical Properties

Appearance:	liquid
Colour:	black (Part A), pale yellow (Part B)
Odour:	perceptible odour
Oxidising:	non-oxidising
Solubility in water:	11.6 mg/l @20 ˚C
Boiling Point:	150 ˚C
Viscosity:	0.7 – 1.1 Pa.s: 25 ˚C ASTM D-445
Autoflammability:	ca 400 ˚C
Flash Point (˚C):	>150
Vapour Pressure:	<0.1 mbar @20 ˚C
Relative Density:	1.12 kg/m^3 @ 20 ˚C

Section 10. Stability and Reactivity

Stability	Stable under normal conditions.
Conditions to avoid	Caustic soda can induce vigorous polymerization at temperatures around 200ºC.
Materials to avoid	Strong oxidizing agents.
Hazardous Decomposition Products	Hazardous decomposition products are not expected to form during normal storage. Polymerises exothermically with amines, mercaptans and Lewis acids at ambient temperature and above polymerises in contact with caustic soda. Reacts exothermically with bases, ammonia, primary and secondary amines, alcohols and acids. Can form oxides of carbon and nitrogen, smoke and other toxic fumes.

Section 11 Toxicological Information

Routes of exposure: Eye skin irritation expected to be slightly irritant and skin sensitizer. Not expected to be mutagenic hazard.

Section 12. Ecological Information

Mobility:	Sinks in water
Persistence and degradability:	Not Biodegradable
Bioccumulative potential:	Bioccumulation potential
Other adverse effects:	Harmful to aquatic organisms
Environmental Precautions:	Prevent from entering waterways or contaminating groundwater
Ecotoxicity Data:	Not available
Environmental Fate:	Persistent and non-biodegradable
Environmental Exposure Limits:	Not set

Section 13. Disposal Considerations

Disposal: Avoid release to the environment.
Dispose of this material and its container at hazardous or special waste collection point.
Dispose in a safe manner in accordance with local/national regulations.

Section 14 Transport Information

ROAD AND RAIL TRANSPORT
Classified as Dangerous Goods by the criteria of the "New Zealand NZS5433: Transport of Dangerous Goods on Land".
Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (EPOXY RESIN)
UN No: 3082
HI No: 90
ADR/RID Group 111
Class 9
Emergency Response Guide No: 47

IMDG/IMO
UN No: 3082
Packing group: 111
Marine pollutant: Yes

Labelling: 9
IATA/ICAO
UN No: 3082
Class: 9
Packing group: 111
Packing precautions: 914
Quantity: no limit

Section 15 Regulatory Information

ERMA Group Standard: Construction Products (Subsidiary Hazard) Group Standard 2006; HSR002544

This material is not subject to the following international agreements:
Montreal Protocol (Ozone depleting substances)
The Stockholm Convention (Persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)
International Convention for the Prevention of Pollution from Ships (MARPOL)

This material is subject to the following international agreements:
Basel Convention (Hazardous Waste)
• Wastes from production, formulation and use of resins, latex, plasticizers, glues/adhesives

Section 16 Other Information

Recommendations/restrictions: None

This product may not be used as a marine anti-fouling paint, for pruning wounds on trees or shrubs or in the commercial treatment of timber.

Abbreviations:

CAS No	Chemical Abstracts Number
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms
NZIoC	New Zealand Inventory of Chemicals
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
WES	Workplace Exposure Standard

References:
Supplier Material Safety Data Sheets
EPA website: www.epa.govt.nz
Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system (http://toxnet.nlm.nih.gov).

Disclaimer:

This document has been compiled by Biosymph Limited and serves as the manufacturer's Material Safety Data Sheet ('MSDS'). It is based on information concerning the product which has been provided from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. The information sourced for the preparation of this document was correct and complete at the time of writing to the best of the writer's knowledge. The document represents the commitment to the company's responsibilities surrounding the supply of this product, undertaken in good faith. While Biosymph Ltd has taken all due care to include accurate and up-to-date information in this MSDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, Biosymph Ltd accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this MSDS. The information herein is given in good faith, but no warranty, express or implied is made.

This document should be taken as a safety guide for the product and its recommended uses, but is in no way an absolute authority.

Please consult the relevant legislation and regulations governing the use and storage of this type of product.

For further information, please contact Biosymph Ltd.

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END OF MATERIAL SAFETY DATA SHEET