

BIOSYMPH LIMITED

MATERIAL SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: BioPhene™
 Product Code: PH - xxx
 Product Use: General purpous paint
 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: 17 May 2023 version 1

Section 2. Hazards Identification

This product is classified as hazardous according to Schedules 1 to 6 of the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001 of the HSNO Act, 1996.

Pictograms



WARNING

ECOTOXIC

HSNO Classification	Hazard Code	Hazard Statement
3.1C	H226	Flammable liquid and vapor
6.1E	H333	May be harmful if inhaled
6.3B	H316	Causes mild skin irritation
6.8B	H361	Suspected of damaging fertility or the unborn child
6.9B	H373	May cause damage to organs through prolonged or repeated exposure
9.1B	H411	Toxic to aquatic life with long lasting effects

Prevention Code	Prevention Statement
P102	Keep out of reach of children
P103	Read label or visit our website www.biosymph.co.nz before use
P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat and flames
P233	Keep container tightly closed
P240	Ground container and receiving equipment
P241	Use explosion-proof electrical lighting
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breathe vapours
P273	Avoid release to the aquatic environment
P280	Wear protective gloves / eye protection

Response Code P303+361+353	Response Statement IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water
P370+378	In case of fire: Use foam, CO2 or dry powder
P301+310+P331	IF SWALLOWED: Immediately call a POISON CENTRE or doctor Do NOT induce vomiting
P332+P313	If skin irritation occurs: get medical advice
P391	Collect spillage
P101	If medical advice is needed, have product container or label at hand.
P314	Get medical advice if you feel unwell.
P308+P313	IF exposed or concerned: Get medical advice

Storage Code P403+P233+P235 P405	Storage Statement Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up
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Disposal Code P501	Disposal Statement Crush or puncture container to prevent further use if not recycled. Dispose of at an approved waste disposal site, in accordance with Regional Authority or local council regulations.
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Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Mixed petroleum/Xylol solvents	40-80	Not available
Drying oils	10-20	Not available
Cut-back bitumen	1-10	8052-42-4
Turbostratic Graphene	<1	Not available

Section 4. First Aid Measures

Recommended on site emergency facilities: Eye wash station

Routes of Exposure:

If in Eyes	Remove excess contamination around eyes with olive oil. Wash eyes with a gentle stream of water to dislodge solid particles. Seek medical attention.
If on Skin	Remove contaminated clothing. Physically scrape off excess and use olive oil to dissolve residues. Finally wash skin or hair with soap and water.
If Swallowed	DO NOT INDUCE VOMITING. Seek immediate medical attention.
If Inhaled	Remove patient from contaminated area to fresh air. If patient does not recover normal breathing and is distressed, seek medical advice.

Section 5. Fire Fighting Measures

Flashpoint: 31°C

Flammable limits: LFL: 0.6% UFL: 7.0%

Extinguishing media: Dry chemical or foam.

Fire and Explosion hazards: Liquid and vapours are flammable. Do not breathe smoke, gases or vapours generated in a fire. Expansion or decomposition of containers may lead to violent rupture of containers.

Firefighting Equipment: Full protective clothing and self-contained breathing apparatus (SCBA).

In event of fire:

- Alert Fire Brigade (111); advise location and nature of hazard.
- Wear breathing apparatus and protective gloves.
- Shut off products that may 'fuel' a fire if safe to do so.
- If safe, switch off electrical equipment until vapour hazard is removed.
- Allow trained personnel to attend a fire in progress, providing fire-fighters with this Material Safety Data Sheet.
- Prevent product and extinguishing media from escaping to drains and waterways.

Hazards from combustion products: Carbon dioxide, carbon monoxide.

Hazchem Code: 3Y

Section 6.	Accidental Release Measures
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Emergency Procedures and Containment:

Refer to "Fire Fighting Measures", "First Aid Measures" and "Stability and Reactivity".

Minor spills:

- Remove or eliminate all ignition sources.
- Clean up spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Wear personal protective equipment.
- Contain and absorb small quantities with vermiculite or other absorbent material.
- Collect residues and waste material in a labelled container suitable for flammables.
- Seal container and dispose of safely.

Major spills:

- Clear area of personnel and move upwind.
- Alert Fire Bridge (111); advise location and nature of hazard.
- Wear breathing apparatus plus protective gloves.
- Stop leak if safe to do so.
- Contain spill with sand, earth or vermiculite.
- Prevent by any means available, spillage from entering drains, sewers, watercourses, or low-lying areas.
- Eliminate sources of ignition, naked lights. No smoking.
- Increase ventilation.
- Water spray or fog may be used to disperse / absorb vapour.
- Use only spark-proof tools, e.g. shovels, and explosion proof equipment, e.g. pumps.
- Collect recoverable product into labelled contains for recycling.
- Absorb remaining product with sand, earth or vermiculite.
- Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent run-off into drains.
- If contamination of drains or waterways occurs, advise Emergency Services and Local or Regional authority.

Section 7.	Handling and Storage
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Approved Handlers: Not required.

Precautions for safe handling:

Read product label before use. This product is flammable. Do not open near open flame, sources of heat or ignition. No smoking. Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Material will accumulate static discharge.

Use outdoors or in well-ventilated area. Wear personal protective equipment. Wash hands with soap and water after handling. Wash protective clothing separate to household laundry.

Conditions for safe storage:

Keep out of reach of children. Store locked up in a cool, dry place away from direct sunlight. This product will fuel a fire in progress. Check containers periodically for leaks or distortion.

Incompatible materials: Natural rubber, butyl rubber, EDPM, polystyrene.

Section 8	Exposure Controls / Personal Protection
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WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**Health Exposure Standards:**

Workplace Exposure Standards (WES), 2002, has been set by Worksafe New Zealand for a component in this product.

Xylene	WES-TWA	50 ppm	(217 mg/m ³)
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Biological limit values: For xylene as methylhippuric acid in urine, 1.5 g/L (end of shift).

Engineering Controls:**Ventilation:**

Use product outdoors or in well-ventilated area. If using product in commercial or industrial situations where concentrations in air may exceed the limits described in the Workplace Exposure Standards, the use of local exhaust ventilation is recommended to control emissions near the source. Provide mechanical ventilation in confined spaces. Use explosion-proof ventilation equipment.

Personal Protective Equipment:

Respiratory Protection: Not expected to be required if used in well-ventilated area or outdoors. When using product in commercial or industrial situations where concentrations in air may exceed the limits described in the Workplace Exposure Standards, it is recommended to use a half-face filter mask to protect from overexposure by inhalation. A type "A" filter material is considered suitable for this product.

Eye Protection: Protect eyes from splashes. Use safety glasses with side shield or goggles where risk of splashing.

Skin/ Body Protection:

Gloves recommended to avoid degreasing / drying of skin.

Section 9	Physical and Chemical Properties
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The values listed are indicative of this product's physical and chemical properties.

Property	Unit of measurement	Typical value
Appearance	-	Coloured liquid
Odour	-	Characteristic
Flash Point	°C	31
Boiling Point	°C	70 -100
Autoignition temperature	°C	>150
Specific gravity @ 20°C	g/ml	0.81
Vapour Pressure @ 20°C	mm Hg	Not available
Vapour Density @ 20°C	kPa	Not available
Alkalinity/acidity (as pH)	-	Not applicable
Solubility in Water	% w/w	Immiscible

Section 10.	Stability and Reactivity
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Chemical Stability	Stable under normal conditions. Stable at room temperature and pressure.
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Conditions to Avoid	Heat, direct sunlight, open flames
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Hazardous Decomposition Products	No decomposition products except on burning. See "Fire Fighting Measures" and "Hazardous Reactions".
Hazardous reactions	Oxidizing agents, mineral acids, halogenated compounds
Hazardous polymerization	Not known to occur

Section 11 Toxicological Information

Acute Effects:

Ingestion

May be harmful if swallowed and if aspirated into lungs during ingestion or vomiting. Symptoms of over-exposure include headache, nausea, dizziness and tracheal burning.

Eye Contact

This product is irritating to eyes but will not permanently damage eye tissue.

Skin Contact

This product is mildly irritating to skin. Prolonged or repeated exposure will increase risk of dryness and cracking of skin.

Inhalation

May be irritating to nose and throat. Symptoms of over-exposure include headache, nausea, and dizziness.

May cause long-term adverse health effects.

Chronic Effects:

Xylene, a component in this product, is identified as suspected of damaging fertility and the unborn child, and may cause damage to nervous system through prolonged or repeated exposure.

Other Health Effects Information:

No additional information.

Toxicological Information:

Xylene Inhalation, mouse LC50 (4 hr) 27.6 mg/L

Section 12. Ecotoxicological Information

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 Methods:

Care should be taken to ensure compliance with national, regional and local authority regulations. Packaging may still contain fumes and vapours that are flammable. Ensure that empty packaging is allowed to dry. If not recycled, puncture and crush before disposal to landfill. Do not use containers for storing other products.

Section 14 Transport Information

UN Number: 1300
Shipping name: MINERAL TURPENTINE
Class: 3
Packing group: III
Hazchem code: 3Y

Dangerous Goods Segregation

This product is classified as Dangerous Goods Class 3, Packing Group III.
Please consult NZS 5433:2012 Transport of Dangerous Goods on Land for information.



Section 15 Regulatory Information

Country/ Region: New Zealand
 Inventory: NZIoC
 Status: Components listed

EPA New Zealand HSNO Approval Code: HSR002650, Solvent (Flammable) Group Standard 2006; Refer www.epa.govt.nz for information on Controls.

Section 16 Other Information

1. 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.
2. Hazardous Substances Data Bank (HSDB), a database of the National Library of Medicine's TOXNET system (<http://toxnet.nlm.nih.gov>).
3. Preparation of Safety Data Sheets, January 2018.

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.

Issue Date: 17 May 2023

Revision Date: -

Review Date: 17 May 2028

END OF MATERIAL SAFETY DATA SHEET