

Safety Data Sheet (SDS) BIOSL/01

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According to UN GHS 9th Ed
Revision Date: 2022/02/08

First print date: 2017/02/17

Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: **BIOFILM®**

Additional information: Product code BIOSL/01

Relevant identification uses of the substance and uses advised against:

Identified uses: Adjuvant.

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

AECI Limited
14 Field Road, LILANTON

Emergency telephone numbers:

Griffon Poison information centre: 082 446 8946
Poisons Information Helpline: 0861 555 777
AECI Limited: (011) 823 8000 (o/h) Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to

SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Flammable liquid (Category 3)	H226
Skin corrosion (Category 1B)	H314
Specific Target Organ Toxicity single exposure (Category 3)	H336
Reproductive toxicity (Category 1B)	H360

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: Flammable liquid and vapour.

The most important adverse human health effects: Causes serious skin burns and eye damage.

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Label elements:

Hazard pictograms:



Signal Word: Danger

Hazard Statements: H226 Flammable liquid and vapour. H314 Causes severe skin burns and eye damage. H336 May cause drowsiness or dizziness. H360 May damage fertility or the unborn child.

Precautionary Statement: P202: Do not handle until all safety precautions have been read and understood. P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P260 Do not breathe mist/ vapours/ spray. P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P301 + P312 IF SWALLOWED: Call a POISON CENTRE or doctor/ physician if you feel unwell. P303/361/353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [shower]. P264: Wash hands and face thoroughly after handling. P305/351/338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P308/313: If exposed or concerned: Get medical attention. P405: Store locked up.

Special labelling of certain mixture: Bis (2-ethylhexyl)phthalate (DEHP) listed as a substance of very high concern. (published in accordance with Article 59(10) of the REACH Regulation)

Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients:

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight	Classification
	EC-No.		EC1272/2008
Morpholine	110-91-8	1-10%	Flammable liquid (Category 3) H226. Acute toxicity oral, dermal, inhalation (Category 4) H302+H312+H332. Skin corrosion (Category 1B) H314.
	203-815-1		
Propyl alcohol	67-63-0	10-20%	Flammable liquid (Category 2) H225. Serious eye damage (Category 1) H318. STOT SE 3 H336.
	200-746-9		
2-butoxyethanol	111-76-2	10-20%	Acute toxicity oral, dermal, inhalation (Category 4) H302+H332. Skin irritation (Category 2) H315. Eye irritation (Category 2) H319.
	203-905-0		
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	10-20%	Reproductive toxicity (Category 1B) H360.
	204-211-0		
Docusate sodium	577-11-7	1-5%	Skin irritation (Category 2) H315. Serious eye damage (Category 1) H318.
	209-406-4		

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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

In case of ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention.

Most important symptoms and effects, both acute and delayed:

Inhalation: May be harmful if inhaled.

Ingestions: Harmful if swallowed.

Skin contact: Causes serious skin burns.

Eye contact: Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media: Use carbon dioxide, dry powder or alcohol- resistant foam to extinguish fire. Water spray can be used for cooling of unaffected stock but avoid water coming in contact with the product. Apply water as fine mist or fog.

Unsuitable extinguishing media: Do not use high volume water jet, due to contamination risk.

Special hazards arising from the mixture:

Thermal decomposition or combustion may produce carbon dioxide, carbon monoxide, and nitrogen oxides.

Advice for fire-fighters:

Remove spectators from surrounding area. Remove container from fire area if possible. Contain fire control agents for later disposal. Use are commended extinguishing agent for the type of surrounding fire. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Eliminate any possible source of exposure. Avoid contact and inhalation of product. Use adequate protective clothes, gloves and use an approved/certified respirator or equivalent.

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For emergency responders: Isolate the spill area and limit the access to essential personnel, eliminate any possible source of ignition. Ventilate the confined space before entry. Avoid eye and skin contact. Use adequate protective clothes, gloves and use an approved/certified respirator or equivalent.

Environmental precautions:

Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapours. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Methods for containment and cleaning up:

For small spills Remove all sources of flames and sparks. Contain spilled material if possible. Collect in suitable and properly labelled containers. Absorb with materials such as: sand, earth, vermiculite or diatomaceous earth

For large spills Remove all sources of flames and sparks. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal per local regulations.

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 information on disposal.

Additional information:

None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Avoid prolonged contact with concentrate. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin or clothing.

Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Store in its original, labelled and closed container in dry, cool, shaded, well-ventilated area, away from heat, sparks and other sources of ignition. Do not store with other pesticides, fertilizer, seeds, foodstuffs and water supplies. Store away from incompatible substances. Keep out of reach of unauthorized persons, children and animals. Local regulations should be complied with.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL): No information available.

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Biological exposure indices (BEI): No information available.

Additional exposure limits under the conditions of use: No information available.

Exposure control: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control.

Appropriate engineering controls: Some form of mechanical exhaust is required when using this product.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use safety glasses with side shields or chemical goggles.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Wear appropriate clothing for task or operation. Keep working clothes separately.

Respiratory protection: Respiratory protection is required use an approved air-purifying respirator.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Liquid.

Colour: Red.

Odour: No information available.

Odour threshold: No information available.

pH (at concentration): 8-9 (1%)

Melting point/range (°C): No information available

Boiling point/range (°C): No information available

Flash point (°C): 49°C (tested).

Evaporation rate: No information available.

Flammability (solid, gas): Flammable liquid.

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Ignition temperature (°C): No information available.

Upper/lower flammability/explosive limits: No information available.

Vapour pressure (20°C): No information available.

Vapour density: No information available.

Density (20°C): 0.925-0.945

Water solubility (g/l) at 20°C: Soluble.

n-Octanol/Water partition coefficient: No information available.

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

Viscosity: No information available.

Physical hazards:

Flammable liquid and vapour.

Other information:

Fat solubility (solvent-oil to be specified): No information available.

Bulk density: No information available.

Dissociation constant in water (p Ka): No information available.

Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND RELIABILITY

Reactivity:

The product is stable under normal conditions.

Chemical stability:

Stable under normal storage conditions for 2 years.

Possibility of hazardous reactions:

Hazardous polymerization does not occur.

Conditions to avoid:

High temperatures.

Incompatible materials:

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Strong oxidizing agents, strong acids or bases.

Hazardous decomposition products: thermal:

Carbon oxides, nitrogen oxides and organic compounds.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Information on toxicological effects:

Acute toxicity:

Morpholine

Acute oral LD₅₀ for rat 1450-mg/kg.

Dermal LD₅₀ 0.5 mL/kg.

Inhalation LC₅₀ (8 h) for rat 8000 ppmV

DEHP

Acute oral LD₅₀ for rat 30600 mg/kg.

Dermal LD₅₀ for rat >2000 mg/kg (male, female)

Inhalation LC₅₀ (4 h) for rat >3.5 mg/L (dust, maximum attainable concentration).

Skin corrosion/irritation:

DEHP

Not an irritant.

Serious eye damage/irritation:

DEHP

Not irritant.

Respiratory or skin sensitization: No information available

Germ cell mutagenicity: No information available

Carcinogenicity: No information available.

Reproductive toxicity: No information available

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Morpholine

Fish: LC₅₀ (96 h) for *Oncorhynchus mykiss* 180-380mg/L.

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Daphnia: EC₅₀ (24 h) for *Daphnia Magna* 100 mg/ℓ.

Persistence and degradability:

No information available.

Bioaccumulative potential:

No information available.

Mobility in soil

No information available.

Results of PBT& vPvB assessment:

No information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Consider suitable waste recycling, re-use or recovery options. Dispose of in accordance with municipal, provincial and national regulations. Waste Classification and Management Regulations (GN 634 of 2013). Dispose and or manage in accordance with the requirements contained in R634 Waste Classification & Management Regulations, R635 National Norms & Standards for the Assessment of Waste for Landfill Disposal and R636 National Norms & Standards for Disposal of Waste to Landfill.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	2920	2920	2920
UN Proper shipping name:	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Morpholine)	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Morpholine)	CORROSIVE LIQUID, FLAMMABLE, N.O.S. (Morpholine)
Transport hazard class:	8 (3)	8 (3)	8 (3)
Packaging group:	II	II	II
Marine pollutant:	No	No	No
Special precautions for user:	No information	No information	No information
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	No information	No information	No information

Inland waterways: No information.

Emergency response information: No information.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

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Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 9, 2021.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH)

Relevant information regarding restrictions: None.

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP] and EU directives 67/548/EEC or EC 1999/45/EC

Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management: Waste Act 59 of 2008.

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

All sections.

Relevant Classification and Hazard Statements:

STOT SE 3- Specific target organ toxicity single exposure (Category 3).

H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled. H314 Causes severe skin burns and eye damage. H315 Causes skin irritation. H318 Causes serious eye damage. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness. H360 May damage fertility or the unborn child.

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.