

MATERIAL SAFETY DATA SHEET



1.1 PRODUCT

BIO LF

1.2 DESCRIPTION / PROPERTIES (nature, reactivity):

An inhibited non flammable low foaming aqueous biological cleaning agent designed for the removal of oil grease and soil in the engineering industry where high pressure spray washing techniques are used. Recommended dilution range 1-5% depending upon application and degree of soiling. If used in the temperature range 30 – 40°C the product will be biologically active and may help to digest removed oil. Inhibited to prevent flash corrosion of ferrous materials.

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2. HAZARDS IDENTIFICATION

a) Fire/Explosion Hazard (stability, flammability, combustion products):

Not classified as flammable or combustible (Material is water based).

b) Health Hazard (inhalation, ingestion, contact with skin or eyes):

Irritating to eyes. May cause sensitisation on prolonged or repeated skin contact. As with all surface-active chemicals, care should be taken to avoid prolonged skin contact. The product is non-volatile and aqueous based so that inhalation risk is minimal.

c) Environmental Hazard:

Harmful to aquatic organisms. May cause long term adverse effects in the aquatic environment.

3. COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT	CAS NO	EINECS	% CONCENTRATION	HAZARD	RISK PHRASES	WEL
Dipropylene glycol mono methyl ether	34590-94-8	252-104-2	0 → 1%	-	-	WEL
Tetra potassium pyrophosphate	7320-34-5	230-785-7	0 → 5%	X _i	R36	-
Monoethanolamine	141-43-5	205-483-4	0 → 1%	X _n	R20/21/22, 34	WEL
Orange terpenes	8028-48-6	232-433-8	0 → 1%	X _n	R10, 38, 43, 50/53	-
Alcohol Ethoxylate	-	-	5 → 10%	X _n	R38, 41	-

4. FIRST AID MEASURES

- INHALATION** - Low risk in normal usage. Remove to fresh air. Rest and keep warm.
- SKIN CONTACT** - Wash thoroughly with water. Remove contaminated clothing and launder before reuse.
- EYE CONTACT** - Remove any contact lenses. Irrigate eyes with copious supply of clean water. Obtain medical attention if irritation persists.
- INGESTION** - Do not swallow, rinse mouth with water. If swallowed in quantity, drink water and obtain prompt medical attention.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:

Since the product is not combustible or flammable, if involved in a fire, use extinguishing media appropriate to the source of the fire.

Protection for fire fighters:

Wear self-contained breathing apparatus. Wear protective clothing.

6. ACCIDENTAL RELEASE MEASURES**Personal Precautions:**

Mark out contaminated area with signs and prevent access to unauthorised personnel.

Environmental Precautions:

Prevent discharge of concentrate to drains or water courses.

Clean up Procedures:

Disperse small spillages with large excess of water. Large spillages - contain, absorb and pick up, place in sealed containers for disposal via licensed contractor. Wash down traces with excess of water.

7. HANDLING AND STORAGE**Handling:**

Does not require any specific measures.

Storage:

May be stored for periods over twenty four months in plastic containers as supplied. Protect from heat and frost.

Specific uses: Intended for use in industrial washing machines at concentrations typically between 1 and 5% and at temperatures between 30 and 40°C

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Component Exposure Limits:**

Component Name	Concentration	8 hr TWA limit	15 min STEL
(2-Methoxymethylethoxy) propanol	0 → 1%	50ppm / 308mg/m ³	-
2-Aminoethanol	0 → 1%	3ppm / 7.6mg.m ⁻³	6ppm / 15mg.m ⁻³

References: EH40/2007 Workplace Exposure Limits 2007

Engineering Controls: Provide eyewash station.

Personal Protection: **Respiratory:** Not normally required.

Hand: Use protective gloves made of neoprene or nitrile.

Eyes: Wear safety glasses.

9. PHYSICAL AND CHEMICAL PROPERTIES

General/Appearance/Odour	: Hazy pale straw liquid
pH Value	: 7.5 – 9.0
Boiling point	: 100°C approx. (water based)
Flash Point	: None Measurable
Flammability (solid, gas)	: Not applicable
Explosive properties	: None known
Oxidising Properties	: Bacterial oxidation only.
Vapour Pressure at 20°C	: Essentially water vapour
Density at 20°C	: 1.03 – 1.04
Solubility in water at 20°C	: Completely soluble.
Partition Coefficient: n-octanol/water:	: Not determined – complex mixture.
Viscosity mPas.	: 10.0 – 15.0
Vapour Density	: As water
Evaporation Rate	: As water
Other	: Shelf life greater than 2 years when stored as recommended.

10. STABILITY AND REACTIVITY

Conditions to avoid: Excessive heat and heavy frost.

Materials to avoid: No known adverse reactions.

Hazardous decomposition products: No typical hazardous decomposition products known.

11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Acute health effects:

Respiratory: Not likely to occur (material is aqueous based).
Skin: May cause sensitisation on prolonged or repeated skin contact.
Eyes: Irritating to eyes.
Ingestion: Low acute toxicity. May cause irritation to mucous membranes in mouth, throat, stomach and intestinal canal.

Toxicological Data:

For individual components:

Component	Acute Toxicity
Tetrapotassium pyrophosphate	LD ₅₀ oral (rat): >2000mg/kg
Monoethanolamine	LD ₅₀ oral (rat): 1720mg/kg
Dipropylene glycol mono methyl ether	LD ₅₀ oral (rat): 5000mg/kg
Orange terpenes	LD ₅₀ oral (rat) 4400mg/kg
Alcohol ethoxylate	Oral: 200 < LD ₅₀ < 2000mg./kg Dermal: LD ₅₀ > 2000mg/kg Inhalation: LC ₅₀ > 5mg/L

Sensitisation: Possible sensitiser for some individuals.

Repeated dose toxicity: No data available.

CMR effects: None known.

12. ECOLOGICAL INFORMATION

Ecotoxicity:

For individual components:

Component	Acute Toxicity
Orange terpenes	EC50 Daphnia magna: 12.3mg/L
Alcohol ethoxylate	Fish: 1 < LC50 < 10mg./L Daphnia: 1 < LC50 < 10mg./L Algae: 1 < LC50 < 10mg./L

Mobility: Not expected to be mobile in soils and sediments.

Persistence and degradability: Biodegradable.

Bioaccumulation potential:

No bioaccumulation is expected. The product is biodegradable and water-soluble.

PBT assessment: Low risk.

13. DISPOSAL CONSIDERATION

Disposal Methods:

Dispose of in accordance with local authority requirements via a licensed contractor.

14. TRANSPORT INFORMATION

Not classified as hazardous for transportation purposes.

UN No. Not applicable

Class: Not applicable

15. REGULATORY INFORMATION

Xi Irritant

Risk phrases:

R36 Irritating to eyes

R43 May cause sensitisation by skin contact.

R52/53 Harmful to aquatic organisms, may cause long term adverse effects in the aquatic environment.

Safety phrases:

S24 Avoid contact with skin.

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S29 Do not empty into drains.

Regulatory Information:

UK Regulatory References:

The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009.

EH40/2007: Workplace Exposure Limits 2007.

EC Directives:

REACH Directive (EC No. 1907/2006)

Approved Code of Practice:

The Compilation of Safety Data Sheets. (REACH Annex 2)

16. OTHER INFORMATION

Risk Phrases: (Applicable only to materials in section 3 when supplied as concentrates.)

R10 Flammable

R20/21/22 Harmful by inhalation, in contact with skin and if swallowed

R34 Causes burns

R38 Irritating to skin.

R41 May cause serious damage to eyes.

R50/53 Very toxic to aquatic organisms, may cause long term adverse effects in the aquatic environment.

Training advice:

Recommended restrictions on use: Not recommended for use at temperatures below 30°C in industrial washing machines. Foaming may occur if used at low temperatures. Bacterial action will be lost if used at temperatures above 45°C

Further information:

Sources:

PLEASE NOTE:

The above information is based on the present state of our knowledge at the time of publication. It is given in good faith, no warranty is implied with respect to quality or specification of product. The user must satisfy himself that the product is entirely suitable.

Signature: _____

Date: 22nd November 2010