



MATERIAL SAFETY DATA SHEET

1.1 PRODUCT

ROAD BIO

1.2 DESCRIPTION / PROPERTIES (nature, reactivity):

A non flammable low foaming aqueous cleaning agent designed for the removal of oil spills on roads and highways. For brush applications use neat or diluted 1:20. For jetting / back pack applications, use at a dilution of between 4 and 8%.

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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 skin. May cause serious damage to eyes. As with all surface-active chemicals, care should be taken to avoid prolonged skin contact. The product is non-volatile and aqueous based, therefore inhalation risk is minimal. **Not classified as hazardous at 8% end use concentration.**

c) Environmental Hazard:

Not classified as hazardous to the environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENTS	CAS No.	EC No.	CONCENTRATION	HAZARD	RISK PHRASES	WEL
Sodium Hydroxide	1310-73-2	215-185-5	0 → 2%	C	R35	WEL
Sodium Metasilicate	6834-92-0	10213-79-3	0 → 5%	X _i	R34, 37	-
Trisodium Nitritotriacetate	5064-31-3	225-768-6	0 → 2%	X _n	R22,36,40	-
2-(2-Butoxyethoxy) ethanol	112-34-5	203-961-6	0 → 5%	X _i	R36	WEL
Alcohol Ethoxylate	-	Polymer	5 → 10%	X _n	R22, 41	-
Alkyl Polyglucoside	-	Polymer	0 → 5%	X _i	R41	-

4. FIRST AID MEASURES

INHALATION - Low risk in normal usage. In cases of respiratory distress, remove patient to fresh air, rest and keep warm.

SKIN CONTACT Avoid unnecessary contact. Wash thoroughly all affected areas with water. Remove contaminated clothing and launder before re-use. Wash hands before eating or drinking.

EYE CONTACT - Remove contact lenses. Irrigate with plenty of clean running water. Seek medical attention if irritation persists.

INGESTION - Low risk in normal use. Do not swallow, rinse out mouth with water. If swallowed in quantity, drink milk or water to dilute and seek medical attention as a precautionary measure. Do not induce vomiting. Material may cause stomach disorder. Irritation of

Road Bio

the mouth, pharynx oesophagus and stomach can develop following significant ingestion.

5. FIRE FIGHTING MEASURES

Suitable extinguishing media:

If product containers are involved in a fire, use extinguishing media appropriate to the source of the fire.

Protection for fire fighters:

Wear self-contained breathing apparatus and suitable protective clothing.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:

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

Environmental Precautions:

Product is not classified as environmentally hazardous. However, where conditions permit, contain run off water. Do not discharge as a concentrate to sewers, drains and water courses.

Clean up Procedures:

Disperse small spillages with a large excess of water. Large spillages should be contained, picked up and placed in sealed containers for disposal via a licensed contractor. Wash down traces with water.

7. HANDLING AND STORAGE

Handling:

Does not require any specific measures. Washing hands before eating or drinking is recommended.

Storage:

Store in original containers. Avoid temperatures below -5°C and above 50°C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Workplace Exposure Limits: Components as below

Component	Concentration in preparation	8 Hour Time Weighted Average (TWA)	15 Minute Short Term Limit (STEL)
Sodium hydroxide	0 → 2%	Not allocated	2mg/m ³
2-(Butoxyethoxy)ethanol	0 → 5%	10ppm / 67.5mg/l	15ppm / 101.2mg/l

In normal usage, these limits are very unlikely to be exceeded. However, avoid inhalation of mists and sprays.

Exposure Controls: Provide eyewash station where appropriate.

Personal Protection: Respiratory:

Hand: Use protective gloves.

Eyes: Wear safety glasses.

Skin: see above

Environmental Protection: Contain run off water when appropriate to do so.

9. PHYSICAL AND CHEMICAL PROPERTIES

General/Appearance/Odour : Colourless to pale yellow liquid

pH Value : >12 as supplied

Boiling point/boiling range : 100°C approximately

Flash Point : None Measurable

Flammability (solid, gas) : Not applicable

Explosive properties : None known

Oxidising Properties : None

Vapour Pressure at 20°C : Essentially water vapour

Density at 20°C : 1.06 – 1.08

Solubility in water at 20°C : Completely soluble

Partition Coefficient: n-Octanol/Water : not determined

Viscosity mPas. : <10

Vapour Density : As water

Evaporation Rate : As water

Other : Shelf life greater than 2 years when stored as recommended.

10. STABILITY AND REACTIVITY

Stability: Stable.
Conditions to avoid: Temperatures below -5 and above 50°C
Materials to avoid: No known adverse reactions.
Hazardous decomposition products: None known

11. TOXICOLOGICAL INFORMATION**Health Effects:**

Inhalation: Not likely to occur.
Skin: May cause irritation on prolonged or repeated skin contact.
Eyes: May cause severe irritation and possible eye damage.
Ingestion: Low acute toxicity. May cause severe irritation to mucous membranes in mouth, throat, stomach and intestinal canal.

Toxicokinetics, metabolism and distribution:

Acute effects: For components.

Component	Acute Toxicity
Sodium metasilicate	LD ₅₀ Oral (Rat): 1,153mg/kg
Trisodium nitrilotriacetate	LD ₅₀ Oral (Rat): >2,000mg/kg
2-(2-butoxyethoxy)ethanol	LD ₅₀ Oral (Rat): >5,660mg/kg
Alcohol ethoxylate	LD ₅₀ Oral 200 – 2,000mg/kg
Alkyl polyglucoside	LD ₅₀ Oral (Rat): >5,000mg/kg

Sensitisation: Not classified as a sensitising material.

Repeated dose toxicity: No known effects

CMR effects: Limited evidence for trisodium nitrilotriacetate as a possible carcinogen (category 3).

12. ECOLOGICAL INFORMATION

Ecotoxicity: For components:

Component	Acute Toxicity
Sodium metasilicate	EC ₅₀ 24hr Daphnia magna 300mg/l LC ₅₀ 24hr Brachydanio rerio (fish) 124mg/l
Trisodium nitrilotriacetate	LC ₅₀ 96hr Fish >100mg/l
2-(Butoxyethoxy)ethanol	EC ₅₀ 192hr Algae 53mg/l EC ₅₀ 48hr Daphnia magna >100mg/l LC ₅₀ 96hr Fish 1,300mg/l
Alcohol ethoxylate	LC/EC/IC50 Invertebrates 1 – 10mg/l LC/EC/IC50 Algae and Fish 10 – 100mg/l LC/EC/IC50 Microorganisms >100mg/l
Alkyl polyglucoside	LC50 Fish 1 – 10mg/l EC50 Bacteria >100mg/l

Mobility: mobile

Persistence and degradability:

Biodegradable. COD
BOD (28 day)

The surfactants in this preparation comply with the biodegradability criteria as laid down in regulation (EC) No. 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them at their direct request or at the request of a detergent manufacturer.

Bioaccumulation potential:

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

PTB assessment: Low risk. Not considered to be persistent, toxic or bioaccumulative.

Other:

13. DISPOSAL CONSIDERATION

Disposal methods: Dispose in accordance with local regulations via an approved waste carrier.

14. TRANSPORT INFORMATION

Not classified as hazardous for transport.

UN No.: None
Class: Not applicable
Proper shipping name: Not applicable
Packing Group: Not applicable
Marine pollutant: No
Other:

15. REGULATORY INFORMATION

Irritant X_i

Risk phrases:

R38 Irritating to skin.
R41 Risk of serious damage to eyes.

Safety Phrases:

S26 In case of contact with the eyes, rinse immediately with plenty of water and seek medical advice.
S28 After contact with skin, wash immediately with plenty of water.

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: (See materials listed in section 3)

R22 Harmful if swallowed.
R34 Causes burns.
R35 Causes severe burns.
R36 Irritating to eyes.
R37 Irritating to respiratory system.
R40 Limited evidence of a carcinogenic effect.

Training advice:

Recommended restrictions on use:

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: 21st December 2009