



BioSol Refill

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830
Issue date: 7-11-2018 Revision date: 7-11-2018 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Trade name : BioSol Refill
Product code : 06.20.78
Type of product : Detergent
Product group : Trade product

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Intended for general public
Main use category : Industrial use, Professional use, Consumer use
Use of the substance/mixture : Cleaner

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Kroon Oil BV
Dollegoorweg 15
7602 EC Almelo - Netherlands
T 0031 (0)546 81 81 65
vib@kroon-oil.nl

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 2 H315
Serious eye damage/eye irritation, Category 1 H318
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Causes skin irritation. Causes serious eye damage.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)

:



GHS05

Signal word (CLP)

: Danger

Hazardous ingredients

: Alcohols, C9-11, ethoxylated; Quaternary coco alkyl methyl amine ethoxylate methyl chloride; 2-aminoethanol

Hazard statements (CLP)

: H315 - Causes skin irritation.
H318 - Causes serious eye damage.

Precautionary statements (CLP)

: P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective clothing/eye protection/face protection.
P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a doctor.
P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
(2-methoxymethylethoxy)propanol substance with a Community workplace exposure limit substance with national workplace exposure limit(s) (GB)	(CAS-No.) 34590-94-8 (EC-No.) 252-104-2 (REACH-no) 01-2119450011-60	2,5 – 10	Not classified
Alcohols, C9-11, ethoxylated	(CAS-No.) 68439-46-3 (EC-No.) 614-482-0 (REACH-no) 01-2119980051-45	2,5 – 10	Eye Dam. 1, H318
Amines, N-C8-22-alkyltrimethylenedi-, acrylated, sodium salts	(CAS-No.) 97659-50-2 (EC-No.) 307-455-7 (REACH-no) 01-2119976233-35	2,5 – 10	Eye Irrit. 2, H319
2-aminoethanol	(CAS-No.) 141-43-5 (EC-No.) 205-483-3 (EC Index-No.) 603-030-00-8 (REACH-no) 01-2119486455-28	2,5 – 5	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 3, H335
Quaternary coco alkyl methyl amine ethoxylate methyl chloride	(CAS-No.) 863679-20-3 (EC-No.) 627-129-0	1 – 2,5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318

Full text of H-statements: see section 16

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SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire	: Toxic fumes may be released. Incomplete combustion releases dangerous carbon monoxide, carbon dioxide and other toxic gases.
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5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Avoid contact with skin and eyes.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.
Hygiene measures	: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Store in a well-ventilated place. Keep cool.
Storage temperature	: 5 – 40 °C

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

(2-methoxymethylethoxy)propanol (34590-94-8)	
EU - Occupational Exposure Limits	
Local name	(2-Methoxymethylethoxy)-propanol
IOELV TWA (mg/m ³)	308 mg/m ³
IOELV TWA (ppm)	50 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2000/39/EC
United Kingdom - Occupational Exposure Limits	
Local name	(2-methoxymethylethoxy) propanol
WEL TWA (mg/m ³)	308 mg/m ³
WEL TWA (ppm)	50 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

2-aminoethanol (141-43-5)	
EU - Occupational Exposure Limits	
Local name	2-Aminoethanol
IOELV TWA (mg/m ³)	2,5 mg/m ³
IOELV TWA (ppm)	1 ppm
IOELV STEL (mg/m ³)	7,6 mg/m ³
IOELV STEL (ppm)	3 ppm
Notes	Skin
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	2-Aminoethanol
WEL TWA (mg/m ³)	2,5 mg/m ³
WEL TWA (ppm)	1 ppm

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WEL STEL (mg/m ³)	7,6 mg/m ³
WEL STEL (ppm)	3 ppm
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity)
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	≥ 0.35		EN ISO 374

Eye protection:

Safety glasses

Type	Use	Characteristics	Standard
Safety glasses	Droplet	clear	EN 166

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

Personal protective equipment symbol(s):



Environmental exposure controls:

Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: light green.
Odour	: Perfume.
Odour threshold	: No data available
pH	: 9
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: > 100 °C
Flash point	: No data available
Auto-ignition temperature	: > 250 °C
Decomposition temperature	: > 200 °C
Flammability (solid, gas)	: Not applicable

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Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: ≈ 1,04 g/cm ³ at 20 °C
Solubility	: Water: completely soluble
Partition coefficient n-octanol/water (Log Pow)	: < 3
Viscosity, kinematic	: 9,615 mm ² /s
Viscosity, dynamic	: < 10 mPa·s at 20 °C
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

(2-methoxymethylethoxy)propanol (34590-94-8)

LD50 oral rat	> 5000 mg/kg (OECD 401 method)
LD50 dermal rat	> 19020 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LD50 dermal rabbit	9510 mg/kg (OECD 402 method)
LC50 inhalation rat (ppm)	> 275 ppm (7h) (OECD 403 method)

Alcohols, C9-11, ethoxylated (68439-46-3)

LD50 oral rat	> 5000 mg/kg
LD50 dermal	> 2000 mg/kg

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LC50 inhalation rat (mg/l)	> 20 mg/l
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Quaternary coco alkyl methyl amine ethoxylate methyl chloride (863679-20-3)

LD50 oral rat	300 – 2000 mg/kg
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Skin corrosion/irritation	: Causes skin irritation. pH: 9
Serious eye damage/irritation	: Causes serious eye damage. pH: 9
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

(2-methoxymethylethoxy)propanol (34590-94-8)

NOAEL (oral, rat, 90 days)	1000 mg/kg bodyweight Animal: rat, Guideline: other:KANPOGYO No.700, YAKUHATSU No. 1039.61, and KIKYKU No. 1014.
NOAEL (dermal, rat/rabbit, 90 days)	2850 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 411 (Subchronic Dermal Toxicity: 90-Day Study)

Aspiration hazard	: Not classified
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Viscosity, kinematic	9,615 mm ² /s
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SECTION 12: Ecological information

12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

(2-methoxymethylethoxy)propanol (34590-94-8)

LC50 fish	> 1000 mg/l (96h, <i>Poecilia reticulata</i> , OESO 203 of equivalent)
EC50 Daphnia	1919 mg/l (48h, <i>Daphnia magna</i> , OESO 202 of equivalent)
EC50 other aquatic organisms 1	1930 mg/l Test organisms (species): other aquatic crustacea: <i>Acartia tonsa</i>
EC50 72h algae (1)	> 969 mg/l (72h, <i>Pseudokirchneriella subcapitata</i> , OESO 201 of equivalent)
EC50 96h algae (1)	> 969 mg/l Test organisms (species): <i>Pseudokirchneriella subcapitata</i> (previous names: <i>Raphidocelis subcapitata</i> , <i>Selenastrum capricornutum</i>)
LOEC (chronic)	0,5 mg/l Test organisms (species): <i>Daphnia magna</i> Duration: '22 d'
NOEC (chronic)	> 0,5 mg/l (22d, <i>Daphnia magna</i> , OESO 211 of equivalent)

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12.2. Persistence and degradability

(2-methoxymethylethoxy)propanol (34590-94-8)

Persistence and degradability	Readily biodegradable.
Biodegradation	76 % (28d) (OESO 301F of equivalent)

Alcohols, C9-11, ethoxylated (68439-46-3)

Persistence and degradability	Readily biodegradable.
BOD (% of ThOD)	> 60 % ThOD 28 d, Closed Bottle Test (OECD 301D)

Quaternary coco alkyl methyl amine ethoxylate methyl chloride (863679-20-3)

Persistence and degradability	Readily biodegradable.
BOD (% of ThOD)	> 60 % ThOD 28 d, Closed Bottle Test (OECD 301D)

12.3. Bioaccumulative potential

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Partition coefficient n-octanol/water (Log Pow)	< 3
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(2-methoxymethylethoxy)propanol (34590-94-8)

Partition coefficient n-octanol/water (Log Pow)	0,0043 (25°C) (OECD 107 method)
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Alcohols, C9-11, ethoxylated (68439-46-3)

Partition coefficient n-octanol/water (Log Pow)	2,4
Bioaccumulative potential	Bioaccumulation unlikely.

Quaternary coco alkyl methyl amine ethoxylate methyl chloride (863679-20-3)

Bioaccumulative potential	Bioaccumulation unlikely.
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component

(2-methoxymethylethoxy)propanol (34590-94-8)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Alcohols, C9-11, ethoxylated (68439-46-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
Quaternary coco alkyl methyl amine ethoxylate methyl chloride (863679-20-3)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.

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SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.3. Transport hazard class(es)				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.4. Packing group				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
14.5. Environmental hazards				
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
No supplementary information available				

14.6. Special precautions for user

Overland transport

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Detergent Regulation : Labelling of contents (648/2004/EC):

Component	%
non-ionic surfactants, amphoteric surfactants	5-15%
perfumes	

15.1.2. National regulations

No additional information available

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15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LD50	Median lethal dose
LC50	Median lethal concentration
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STP	Sewage treatment plant
TLM	Median Tolerance Limit
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Full text of H- and EUH-statements:	
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2

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STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.