

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Product name : Road//Stabilizr®
Other means of identification : RS

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Use of the substance/mixture : Soil stabilizr product for soil containing clay, diluted in 80-90% of water in water wagon

1.2.2. Uses advised against

Restrictions on use : Anything other than the above

1.3. Details of the supplier of the safety data sheet

Manufacturer:
Cypher Environmental Ltd.
Address:
1149 St. Matthews Ave. Winnipeg Manitoba R3G 0J8, Canada
E-mail: info@cypherenvironmental.com
Telephone: +1 (204) 489-1214

Importer:
Vumos Industrial Solutions Oy
Address:
Valtalannientie 268,
88270 Vuolijoki,
Finland
E-mail: info@vumos.fi
Telephone: +358 20 734 9840

1.4. Emergency telephone number

Emergency number : Poison Information Centre: +358 800 147 111 ((24 hours, 7 days) / +358 9 471 977

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Acute Tox. 4 (Oral)	H302
Skin Irrit. 2	H315
Eye Dam. 1	H318
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Full text of hazard classes, H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Contains	: Alcohols, C9-11, ethoxylated propoxylated, Lactic acid
Hazard statements (CLP)	: H302 - Harmful if swallowed. H315 - Causes skin irritation. H318 - Causes serious eye damage. H410 - Very toxic to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P273 - Avoid release to the environment. P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P301+P312 - IF SWALLOWED: Call a POISON CENTRE or doctor if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of water. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 - Immediately call a POISON CENTER or doctor.

2.3. Other hazards

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

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

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]
Alcohols, C12-15, ethoxylated	CAS-No.: 68131-39-5 EC No.: 500-195-7	0 - 55	Aquatic Acute 1, H400 Aquatic Chronic 3, H412
Alcohols, C9-11, ethoxylated propoxylated	CAS-No.: 103818-93-5 EC No.: 600-492-2	0 - 55	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Eye Irrit. 2, H319
Alcohols, C12-15, ethoxylated propoxylated	CAS-No.: 68551-13-3 EC No.: 614-582-4	0 - 55	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Alcohols, C9-11, ethoxylated	CAS-No.: 68439-46-3 EC No.: 614-482-0	0 - 55	Eye Irrit. 2, H319
Lactic acid	CAS-No.: 50-21-5 EC No.: 200-018-0	< 5	Skin Corr. 1C, H314 Eye Dam. 1, H318

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. If symptoms develop, obtain medical attention.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If symptoms develop, obtain medical attention.

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First-aid measures after eye contact	: Rinse immediately with plenty of water (for at least 15 minutes). Ensure that folded skin of eyelids is thoroughly washed with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Give 100 - 200 ml of water to drink. Immediately call a POISON CENTRE or doctor/physician.

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

Symptoms/effects after skin contact	: Causes skin irritation.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Harmful if swallowed.

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

Treat symptomatically. Contact ophthalmologist immediately.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. Water. Carbon dioxide. Dry chemical.
Unsuitable extinguishing media	: None known.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: None known.
Hazardous decomposition products in case of fire	: None known.

5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Avoid fire-fighting water entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Use personal protective equipment as required.
Emergency procedures	: Ventilate area. Avoid inhalation of vapours. Evacuate unnecessary personnel. Do not get in eyes, on skin, or on clothing.

6.1.2. For emergency responders

Protective equipment	: Wear suitable protective clothing and eye or face protection. Where excessive dust may result, wear approved mask. Avoid inhalation of vapours. Do not get in eyes, on skin, or on clothing.
Emergency procedures	: Ventilate area. Avoid contact with eyes, skin and clothing.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if large amounts of the product enters sewers or public waters. Do not allow contact with water.

6.3. Methods and material for containment and cleaning up

For containment	: Stop leak, if possible without risk.
Methods for cleaning up	: Absorb and/or contain spill with inert material, then place in suitable container.

6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Avoid inhalation of vapours.
Hygiene measures : Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use.
Incompatible materials : Strong bases. Strong acids.
Storage temperature : 10 – 30 °C Application Temperature
Minimum : 10°C (50°F) Maximum 57°C (135°F)
Optimum Working/Application Temperature Range
18-45°C (64-113°F)

7.3. Specific end use(s)

Soil stabilizr product for soil containing clay, diluted in 80-90% of water in water wagon.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Starch (9005-25-8)	
Ireland - Occupational Exposure Limits	
Local name	Starch
OEL (8 hours ref) (mg/m ³)	4 mg/m ³ respirable dust 10 mg/m ³ total inhalable dust
Regulatory reference	Chemical Agents Code of Practice 2021
United Kingdom - Occupational Exposure Limits	
Local name	Starch
WEL TWA (mg/m ³)	10 mg/m ³ total inhalable 4 mg/m ³ respirable
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
Sucrose (57-50-1)	
Ireland - Occupational Exposure Limits	
Local name	Sucrose
OEL (8 hours ref) (mg/m ³)	10 mg/m ³
OEL (15 min ref) (mg/m ³)	20 mg/m ³
Regulatory reference	Chemical Agents Code of Practice 2021
United Kingdom - Occupational Exposure Limits	
Local name	Sucrose
WEL TWA (mg/m ³)	10 mg/m ³
WEL STEL (mg/m ³)	20 mg/m ³
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

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8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Provide adequate ventilation, including appropriate local extraction, to ensure that occupational exposure limits are not exceeded. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.2.2. Personal protection equipment

Personal protective equipment:

Avoid all unnecessary exposure.

8.2.2.1. Eye and face protection

Eye protection:

Chemical goggles or safety glasses. Standard EN 166 - Personal eye-protection.

8.2.2.2. Skin protection

Hand protection:

Wear chemically resistant protective gloves according to EN 374-1. The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed. Gloves should be removed and replaced if there are any signs of degradation or breakthrough. Due to the practical application of the refractory products, it is advised to apply gloves according to EN 388 and EN 374-1.

8.2.2.3. Respiratory protection

Respiratory protection:

Dust mask or respirator. Standard EN 149 – Respiratory protective devices

8.2.2.4. Thermal hazards

Thermal hazard protection:

Not required for normal conditions of use.

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use. Handle in accordance with good industrial hygiene and safety procedures.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: pale green. brown.
Appearance	: slightly viscous.
Odour	: herbal.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: < 0 °C
Boiling point	: > 100 °C
Flammability (solid, gas)	: Non flammable.
Explosive properties	: Not explosive.
Oxidising properties	: Not oxidising.
Explosive limits	: Not available
Lower explosion limit	: Not available

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Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: 3 – 6
Viscosity, kinematic	: Not available
Solubility	: Soluble in water.
Log Kow	: Not available
Vapour pressure	: 17.5 mm Hg @ 20°C (water)
Vapour pressure at 50 °C	: Not available
Density	: ~1.20g/cm ³ @ 25 °C
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7).

10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

10.3. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

10.4. Conditions to avoid

Direct sunlight.

10.5. Incompatible materials

Strong bases. Strong acids.

10.6. Hazardous decomposition products

None known.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified
Additional information	: Based on available data, the classification criteria are not met

Alcohols, C12-15, ethoxylated (68131-39-5)

LD50 oral, rat	5000 – 10000 mg/kg
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Lactic acid (50-21-5)

LD50 oral, rat	3543 mg/kg
LD50 dermal, rabbit	> 2000 mg/kg

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Lactic acid (50-21-5)	
LC50 inhalation, rat (mg/l)	> 7.94 mg/l - 4 Hours, Aerosol
Skin corrosion/irritation	: Causes skin irritation. pH: 3 – 6
Additional information	: Based on available data, the classification criteria are not met
Serious eye damage/irritation	: Causes serious eye damage. pH: 3 – 6
Additional information	: Based on available data, the classification criteria are not met
Respiratory or skin sensitisation	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Germ cell mutagenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Reproductive toxicity	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-single exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
STOT-repeated exposure	: Not classified
Additional information	: Based on available data, the classification criteria are not met
Aspiration hazard	: Not classified
Additional information	: Based on available data, the classification criteria are not met

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : No additional information available

11.2.2. Other information

Potential adverse human health effects and symptoms : Dust may cause mechanical irritation of the eyes, skin and upper respiratory tract.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not classified.
Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.
Hazardous to the aquatic environment, long-term (chronic) : Very toxic to aquatic life with long lasting effects.

Lactic acid (50-21-5)	
EC50 Daphnia	130 - 48 Hours (Daphnia magna)
ErC50 algae	≈ 3.5 - 72 Hours (Pseudokirchneriella subcapitata)

12.2. Persistence and degradability

Road//Stabilizr®	
Biodegradation	90 % (28 days)
Lactic acid (50-21-5)	
Persistence and degradability	Readily biodegradable.

12.3. Bioaccumulative potential

Road//Stabilizr®	
Bioaccumulative potential	Not relevant for inorganic substances.

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Lactic acid (50-21-5)	
Log Pow	-0.54 (25 °C)

12.4. Mobility in soil

Road//Stabilizr®	
Ecology - soil	No information available.

Lactic acid (50-21-5)	
Ecology - soil	Not expected to adsorb to soil.

12.5. Results of PBT and vPvB assessment

Road//Stabilizr®	
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. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials : Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

14.1. UN number or ID number

UN-No. (ADR) : UN 3082
UN-No. (IMDG) : UN 3082
UN-No. (IATA) : UN 3082

14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alcohols, C12-15, ethoxylated ; Alcohols, C12-15, ethoxylated propoxylated)
Proper Shipping Name (IMDG) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alcohols, C12-15, ethoxylated ; Alcohols, C12-15, ethoxylated propoxylated)
Proper Shipping Name (IATA) : Environmentally hazardous substance, liquid, n.o.s. (Alcohols, C12-15, ethoxylated ; Alcohols, C12-15, ethoxylated propoxylated)
Transport document description (ADR) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alcohols, C12-15, ethoxylated ; Alcohols, C12-15, ethoxylated propoxylated), 9, III
Transport document description (IMDG) : UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Alcohols, C12-15, ethoxylated ; Alcohols, C12-15, ethoxylated propoxylated), 9, III, MARINE POLLUTANT
Transport document description (IATA) : UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Alcohols, C12-15, ethoxylated ; Alcohols, C12-15, ethoxylated propoxylated), 9, III

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14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR) : 9
Hazard labels : 9



IMDG

Transport hazard class(es) (IMDG) : 9
Danger labels (IMDG) : 9



IATA

Transport hazard class(es) (IATA) : 9
Danger labels (IATA) : 9



14.4. Packing group

Packing group : III
Packing group (IMDG) : III
Packing group (IATA) : III

14.5. Environmental hazards

Dangerous for the environment : Yes
Marine pollutant : Yes
Other information : No supplementary information available

14.6. Special precautions for user

Overland transport

Orange plates : 

Transport by sea

No data available

Air transport

No data available

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

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.

POP Regulation (Persistent Organic Pollutants)

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

Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
BCF	Bioconcentration factor
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DNEL	Derived-No Effect Level
EC No.	European Community number
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose

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Abbreviations and acronyms:	
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
PNEC	Predicted No-Effect Concentration
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Data sources	: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: Classification procedure according to Regulation (EC) No. 1272/2008 [CLP]: Physical hazards: On basis of test data. Health hazards: Calculation method. Environmental hazards: Calculation method.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
Skin Irrit. 2	Skin corrosion/irritation, Category 2

Safety Data Sheet (SDS), EU

This safety information must be available to all personnel that have access to this product. The information is based on the information received from the manufacturer in good faith and belief. This information is provided in accordance with all health, safety, and environmental issues. This information shall not be considered as warranty or guarantee of certain property. The user needs to read the product information in advance to know its compatibility with other materials and the purpose in his/her project.