

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

Product form : Mixture
Product name : TerraBlend-02
Product code : 499212, 499222

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 : Laboratory chemicals

1.2.2. Uses advised against

Restrictions on use : None known

1.3. Details of the supplier of the safety data sheet**Supplier**

Buehler
41 Waukegan Rd
60044 Lake Bluff – IL
T 1-847-295-6500
custserv@buehler.com

Only Representative

ITW Test & Measurement GmbH
Meisenweg 35
70771 Leinfelden-Echterdingen
Germany
T +49 0 711 4904690-0
lab.eu@buehler.com

1.4. Emergency telephone number

Emergency number : Global Access Code: 334545; Americas" +1 760 476 3962; Middle East/Africa: +1 760 476 3959; Asia Pacific +1 760 476 3960; Europe +1 760 476 3961

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to GB CLP (SI 2019:720 as amended)**

Acute toxicity (oral), Category 4 H302
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Harmful if swallowed.

2.2. Label elements**Labelling according to GB CLP (SI 2019:720 as amended)**

Hazard pictograms (GB CLP) :



GHS07

Signal word (GB CLP) : Warning
Contains : ethanediol; ethylene glycol
Hazard statements (GB CLP) : H302 - Harmful if swallowed.
Precautionary statements (GB CLP) : P264 - Wash hands, forearms and face thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P301+P312 - IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell.
P330 - Rinse mouth.
P501 - Dispose of contents and container to a hazardous or special waste collection point, in accordance with local, regional, national and international regulations.

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According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

2.3. Other hazards

Component

Substance(s) not meeting the PBT criteria of UK REACH regulation, in accordance with Annex XIII

Sodium chloride (7647-14-5), ethanediol; ethylene glycol (107-21-1), Water (7732-18-5)

Substance(s) not meeting the vPvB criteria of UK REACH regulation, in accordance with Annex XIII

Sodium chloride (7647-14-5), ethanediol; ethylene glycol (107-21-1), Water (7732-18-5)

Component

Substance(s) not included in the list established in accordance with Article 59(1) of UK REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in GB BPR and GB PPP

ethanediol; ethylene glycol(107-21-1), Water(7732-18-5), Sodium chloride(7647-14-5)

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Labelling according to GB CLP (SI 2019:720 as amended)
ethanediol; ethylene glycol	CAS-No.: 107-21-1 EC-No.: 203-473-3	35 – 50	Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight)
Water	CAS-No.: 7732-18-5 EC-No.: 231-791-2	35-45	Not classified.
Sodium chloride	CAS-No.: 7647-14-5 EC-No.: 231-598-3	5-15	Not classified.

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	: Call a poison center or a doctor if you feel unwell.
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.
First-aid measures after eye contact	: Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth. 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 inhalation	: None under normal conditions.
Symptoms/effects after skin contact	: None under normal conditions.
Symptoms/effects after eye contact	: None under normal conditions.
Symptoms/effects after ingestion	: May be harmful if swallowed.

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

Treat symptomatically.

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According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media : Not determined.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.
Explosion hazard : No direct explosion hazard.
Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Firefighting instructions : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters.
Absorb spillage to prevent material damage.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.
Emergency procedures : Ventilate spillage area.

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".
Emergency procedures : Evacuate unnecessary personnel. Stop leak if safe to do so.

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak without risks if possible.
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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Not expected to present a significant hazard under anticipated conditions of normal use.
Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures : 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

Technical measures : Keep in a cool, well-ventilated place away from heat.
Storage conditions : Keep cool. Protect from sunlight.

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According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

ethanediol; ethylene glycol (107-21-1)

United Kingdom - Occupational Exposure Limits

WEL TWA (OEL TWA)	10 mg/m ³ (particulates)
	52 mg/m ³ (vapour)
	20 ppm (vapour)
WEL STEL (OEL STEL)	104 mg/m ³ (vapour)
	30 mg/m ³ (calculated-particulate)
	40 ppm (vapour)
WEL chemical category	Potential for cutaneous absorption

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:

Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Wear recommended personal protective equipment.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses

8.2.2.2. Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

Protective gloves

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According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

8.2.2.3. Respiratory protection

Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

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
Appearance	: Liquid.
Colour	: Colourless.
Odour	: Odourless.
Odour threshold	: Not available
pH	: 6.86
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flash point	: Not available
Explosive limits	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Relative vapour density at 20°C	: Not available
Relative density	: Not available
Density	: Not available
Solubility	: Not available
Partition coefficient n-octanol/water (Log Kow)	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
Viscosity, kinematic	: Not available
Explosive properties	: Not available

9.2. Other information

Particle characteristics	: Not applicable
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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

Strong oxidizing agents.

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According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

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

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ATE UK (oral)	1123.596 mg/kg bodyweight
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Sodium chloride (7647-14-5)

LD50 oral rat	3550 mg/kg (Source: ECHA)
LD50 dermal rabbit	> 10000 mg/kg (Source: ECHA)
LC50 Inhalation - Rat	> 42 mg/l (Exposure time: 1 h Source: ECHA_API)

ethanediol; ethylene glycol (107-21-1)

LD50 oral rat	4700 mg/kg (Source: NLM_CIP)
LD50 dermal rat	10600 mg/kg (Source: JAPAN_GHS)
LC50 Inhalation - Rat	> 2.5 mg/l (Exposure time: 6 h Source: ECHA_API)

Water (7732-18-5)

LD50 oral rat	> 90 ml/kg (Source: FOOD_JOURN)
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Skin corrosion/irritation	: Not classified. (Based on available data, the classification criteria are not met) pH: 6.86
Serious eye damage/irritation	: Not classified. (Based on available data, the classification criteria are not met) pH: 6.86
Respiratory or skin sensitisation	: Not classified. (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	: Not classified. (Based on available data, the classification criteria are not met)
Carcinogenicity	: Not classified. (Based on available data, the classification criteria are not met)
Reproductive toxicity	: Not classified. (Based on available data, the classification criteria are not met)
STOT-single exposure	: Not classified. (Based on available data, the classification criteria are not met)
STOT-repeated exposure	: Not classified. (Based on available data, the classification criteria are not met)
Aspiration hazard	: Not classified. (Based on available data, the classification criteria are not met)

11.2. Information on other hazards

No additional information available

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. (Based on available data, the classification criteria are not met)
Hazardous to the aquatic environment, long-term (chronic)	: Not classified. (Based on available data, the classification criteria are not met)

Sodium chloride (7647-14-5)

LC50 - Fish [1]	5560 – 6080 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [flow-through] Source: EPA)
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According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

Sodium chloride (7647-14-5)	
LC50 - Fish [2]	12946 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static] Source: EPA)
EC50 - Crustacea [1]	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 - Crustacea [2]	340.7 – 469.2 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

ethanediol; ethylene glycol (107-21-1)	
LC50 - Fish [1]	41000 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss Source: IUCLID)
LC50 - Fish [2]	14 – 18 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static] Source: EPA)
EC50 - Crustacea [1]	46300 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 96h - Algae [1]	6500 – 13000 mg/l (Species: Pseudokirchneriella subcapitata)

12.2. Persistence and degradability

TerraBlend-02	
Persistence and degradability	Not rapidly degradable
Sodium chloride (7647-14-5)	
Persistence and degradability	Not rapidly degradable
ethanediol; ethylene glycol (107-21-1)	
Persistence and degradability	Not rapidly degradable
Water (7732-18-5)	
Persistence and degradability	Not rapidly degradable

12.3. Bioaccumulative potential

Sodium chloride (7647-14-5)	
BCF - Fish [1]	(no bioaccumulation)
ethanediol; ethylene glycol (107-21-1)	
Partition coefficient n-octanol/water (Log Pow)	-1.36

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

Component	
Sodium chloride (7647-14-5)	This product does not contain substances at $\geq 0.1\%$ that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at $\geq 0.1\%$ that meet the vPvB criteria of UK REACH regulation, annex XIII
ethanediol; ethylene glycol (107-21-1)	This product does not contain substances at $\geq 0.1\%$ that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at $\geq 0.1\%$ that meet the vPvB criteria of UK REACH regulation, annex XIII
Water (7732-18-5)	This product does not contain substances at $\geq 0.1\%$ that meet the PBT criteria of UK REACH regulation, annex XIII This product does not contain substances at $\geq 0.1\%$ that meet the vPvB criteria of UK REACH regulation, annex XIII

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12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional waste regulation	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Disposal must be done according to official regulations.
Additional information	: Do not re-use empty containers.

SECTION 14: Transport information

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

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

14.6. Special precautions for user

Overland transport

Not regulated

Transport by sea

Not regulated

Air transport

Not regulated

Inland waterway transport

Not regulated

Rail transport

Not regulated

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

Not applicable

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Safety Data Sheet

According to REACH Regulation (EC) No 1907/2006, as retained and amended in UK law.

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

UK REACH Annex XVII (Restriction List)

This product contains no substance(s) listed on UK REACH Annex XVII (Restriction List) equal to or above the level of SDS disclosure

UK REACH Annex XIV (Authorisation List)

This product contains no substance(s) listed on UK REACH Annex XIV (Authorisation List) equal to or above the 0.1% level of disclosure

UK REACH Candidate List (SVHC)

Contains no substance(s) listed on the UK REACH Candidate List

GB PIC regulation (Prior Informed Consent)

This product contains no substance(s) listed on the GB PIC List equal to or above the level of SDS disclosure

POP Regulation (Persistent Organic Pollutants)

This product contains no substance(s) listed on the GB POP List equal to or above the level of SDS disclosure

Ozone Regulation (S.I. No. 168 of 2015)

This product contains no substance(s) listed on the GB Ozone Depletion List equal to or above the level of SDS disclosure

Control of Poisons and Explosives Precursors Act

This product contains no substance(s) listed as a reportable poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This product contains no substance(s) listed as a reportable explosive precursor on the Control of Poisons and Explosives Precursors Regulations equal to or above the level of SDS disclosure

This substance is not listed as a regulated poison on the Control of Poisons and Explosives Precursors Regulations

Drug Precursors Regulation (273/2004)

This product contains no substance(s) listed on the GB Drug Precursors List equal to or above the level of SDS disclosure

15.1.2. Other Information

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
H302	Harmful if swallowed.

Safety Data Sheet (SDS), UK

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.