

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

Graffiti Remover Dracula

Product no.

-

REACH registration number

Not applicable

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

Relevant identified uses of the substance or mixture

Graffiti Removal

Uses advised against

-

The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address

Blue & Green AB
Stenorsvägen 52
261 44 Landskrona
Sweden
Tfn: +46 418 399000
Fax: +46 418 13199
www.blueandgreen.se

E-mail

info@blueandgreen.se

SDS date

2020-08-20

SDS Version

1.0

1.4. Emergency telephone number

Contact The National Poisons Information Service (dial 111, 24 h service). See section 4 "First aid measures".

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Flam. Liq. 3; H226
 Acute Tox. 4; H302
 Asp. Tox. 1; H304
 Skin Irrit. 2; H315
 Eye Dam. 1; H318
 STOT SE 3; H335
 STOT SE 3; H336
 Aquatic Chronic 2; H411
 See full text of H-phrases in section 2.2.

2.2. Label elements

Hazard pictogram(s)



Signal word

According to EC-Regulation 2015/830

Danger

Hazard statement(s)

- Flammable liquid and vapour. (H226)
- Harmful if swallowed. (H302)
- May be fatal if swallowed and enters airways. (H304)
- Causes skin irritation. (H315)
- Causes serious eye damage. (H318)
- May cause respiratory irritation. (H335)
- May cause drowsiness or dizziness. (H336)
- Toxic to aquatic life with long lasting effects. (H411)

Precautionary statements

- General** If medical advice is needed, have product container or label at hand. (P101).
Keep out of reach of children. (P102).
- Prevention** Wear eye protection. (P280).
- Response** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. (P305+P351+P338).
- Storage** Store locked up. (P405).
- Disposal** Dispose of contents/container to an approved waste disposal plant. (P501).

Identity of the substances primarily responsible for the major health hazards

1-butylpyrrolidin-2-one; Hydrocarbons, C9, aromatics; 2-butoxyethanol; 1-Heptanol, 2-propyl-, 5EO; 2-aminoethanol

Additional labelling

Not applicable

Unique formula identifier (UFI)

UJ7R-QXW7-300X-6KVN

2.3. Other hazards

This product contains substances that can cause chemical pneumonia if inhaled. The symptoms of chemical pneumonia may appear after several hours.
This product contains an organic solvent. Repeated or prolonged exposure to organic solvents may result in adverse effects to the nervous system and internal organs such as liver and kidneys.

Additional warnings

Tactile warning. If this product is sold in retail, it must be delivered with child-resistant fastening.

VOC (volatile organic compound)

Not applicable

SECTION 3: Composition/information on ingredients

3.1/3.2. Substances/Mixtures

NAME:	1-butylpyrrolidin-2-one
IDENTIFICATION NOS.:	CAS-no: 3470-98-2 EC-no: 222-437-8 REACH-no: 01-2120062728-48
CONTENT:	40-60%
CLP CLASSIFICATION:	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2 H302, H315, H319
NAME:	Hydrocarbons, C9, aromatics
IDENTIFICATION NOS.:	CAS-no: 128601-23-0 EC-no: 918-668-5 REACH-no: 01-2119455851-35
CONTENT:	25-40%
CLP CLASSIFICATION:	Flam. Liq. 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2 H226, H304, H335, H336, H411, EUH066
NOTE:	O
NAME:	2-(2-ethoxyethoxy)ethanol
IDENTIFICATION NOS.:	CAS-no: 111-90-0 EC-no: 203-919-7 REACH-no: 01-2119475105-42
CONTENT:	10 - <15%
CLP CLASSIFICATION:	NA
NAME:	2-butoxyethanol
IDENTIFICATION NOS.:	CAS-no: 111-76-2 EC-no: 203-905-0 REACH-no: 01-2119475108-36 Index-no: 603-014-00-0
CONTENT:	5 - <10%
CLP CLASSIFICATION:	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2 H302, H312, H315, H319, H332
NOTE:	O L

According to EC-Regulation 2015/830

NAME:	2-aminoethanol
IDENTIFICATION NOS.:	CAS-no: 141-43-5 EC-no: 205-483-3 REACH-no: 01-2119486455-28 Index-no: 603-030-00-8
CONTENT:	2.5 - <5%
CLP CLASSIFICATION:	Acute Tox. 4, STOT SE 3, Skin Corr. 1B H302, H312, H314, H332, H335
NOTE:	O L
NAME:	1-Heptanol, 2-propyl-, 5EO
IDENTIFICATION NOS.:	CAS-no: 160875-66-1
CONTENT:	2.5 - <5%
CLP CLASSIFICATION:	Eye Dam. 1 H318

(*) O = Organic solvent L = European occupational exposure limit. See full text of H-phrases in section 16. Occupational exposure limits are listed in section 8, if these are available.

Other information

ATEmix(inhale, vapour) > 20
 ATEmix(dermal) > 2000
 ATEmix(oral) = 760.92 - 1141.38
 Eye Cat. 1 Sum = Sum(Ci/S(G)CLi) = 1.6 - 2.4
 Skin Cat. 2 Sum = Sum(Ci/S(G)CLi) = 6.336 - 9.504
 N chronic (CAT 2) Sum = Sum(Ci/(M(chronic)*25)*0.1*10^CATi) = 1.088 - 1.632

Detergent:
 > 30%: AROMATIC HYDROCARBONS
 < 5%: NON-IONIC SURFACTANTS

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. The doctor can contact The National Poisons Information Service: Dial 0344 892 0111 (24 h service). Contact a doctor if in doubt about the injured person's condition or if the symptoms persist. Never give an unconscious person water or other drink.

Inhalation

Bring the person into fresh air and stay with him/her.

Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with soap and water.

Eye contact

Remove contact lenses. Flush eyes with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. Seek medical assistance immediately and continue flushing.

Ingestion

Do not induce vomiting! If vomiting occurs, keep head facing down to prevent vomit entering the lungs. Call a doctor or ambulance. Symptoms of chemical pneumonia can appear after several hours. People who have swallowed the product should be kept under medical attention for a minimum of 48 hours.

Burns

Rinse with water until the pain stops then continue to rinse for a further 30 minutes.

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

This product contains substances that can cause chemical pneumonia if inhaled. The symptoms of chemical pneumonia may appear after several hours.

This product contains organic solvents, which may cause adverse effects to the nervous system.

Symptoms of neurotoxicity include: headache, dizziness, ringing in ears, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs.

Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

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

IF exposed or concerned: Get immediate medical advice/attention.

Information to medics

According to EC-Regulation 2015/830

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist.

5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, e.g. in the event of fire, dangerous catabolic substances are produced. These are: Nitrogen oxides. Carbon oxides. Fire will result in dense black smoke. Exposure to combustion products may harm your health. Fire fighters should wear appropriate protection equipment. Closed containers, which are exposed to fire, should be cooled with water. Do not allow fire-extinguishing water to enter the sewage system and nearby surface waters.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact. Upon direct exposure contact The National Poisons Information Service (dial 111, 24 h service) in order to obtain further advice.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Avoid inhalation of vapours from spilled material. Avoid direct contact with spilled substances. Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

6.2. Environmental precautions

Avoid discharge to lakes, streams, sewers, etc. In the event of leakage to the surroundings, contact local environmental authorities. It is recommended to install waste collection trays to prevent emissions to the waste water system and surrounding environment.

6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations.

6.4. Reference to other sections

See section on "Disposal considerations" in regard of handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Avoid static electricity. Protect electrical equipment in accordance with current standards. Do not use spark-forming tools. Smoking, storage of tobacco, consumption and storage of food or liquids are not allowed in the workrooms. It is recommended to install waste collection trays to prevent emissions to the waste water system and surrounding environment. See section on 'Exposure controls/personal protection' for information on personal protection. Avoid direct contact with the product.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original container. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Must be stored in a cool and well-ventilated area, away from possible sources of ignition.

Storage temperature

No data available.

7.3. Specific end use(s)

This product should only be used for applications quoted in section 1.2

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL

2-aminoethanol

Long-term exposure limit (8-hour TWA reference period): 1 ppm | 2,5 mg/m³

Short-term exposure limit (15-minute reference period): 3 ppm | 7.6 mg/m³

Comments: Sk (Sk = Can be absorbed through skin.)

2-butoxyethanol

Long-term exposure limit (8-hour TWA reference period): 25 ppm | 123 mg/m³

Short-term exposure limit (15-minute reference period): 50 ppm | - mg/m³

Comments: Sk;BMGV (Bmgv = Biological Monitoring Guidance Value. Sk = Can be absorbed through skin.)

DNEL / PNEC

DNEL (2-butoxyethanol): 3.2 mg/kg bw/day

According to EC-Regulation 2015/830

Exposure: Oral
Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-butoxyethanol): 49 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-butoxyethanol): 38 mg/kg bw/day
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-butoxyethanol): 426 mg/m³
Exposure: Inhalation
Duration of Exposure: Short term – Systemic effects - General population

DNEL (2-butoxyethanol): 123 mg/m³
Exposure: Inhalation
Duration of Exposure: Short term – Local effects - General population

DNEL (2-butoxyethanol): 98 mg/m³, 20 ppm
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-butoxyethanol): 246 mg/m³, 50 ppm
Exposure: Inhalation
Duration of Exposure: Short term – Local effects - Workers

DNEL (2-butoxyethanol): 663 mg/m³, 135 ppm
Exposure: Inhalation
Duration of Exposure: Short term – Systemic effects - Workers

DNEL (2-butoxyethanol): 89 mg/kg bw/day
Exposure: Dermal
Duration of Exposure: Short term – Systemic effects - Workers

DNEL (2-butoxyethanol): 13.4 mg/kg bw/day
Exposure: Oral
Duration of Exposure: Short term – Systemic effects - General population

DNEL (2-butoxyethanol): 44.5 mg/kg bw/day
Exposure: Dermal
Duration of Exposure: Short term – Systemic effects - General population

DNEL (2-(2-ethoxyethoxy)ethanol): 50 mg/kg bw/d
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-(2-ethoxyethoxy)ethanol): 37 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-(2-ethoxyethoxy)ethanol): 18 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - Workers

DNEL (2-(2-ethoxyethoxy)ethanol): 25 mg/kg bw/d
Exposure: Dermal
Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-(2-ethoxyethoxy)ethanol): 18.3 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-(2-ethoxyethoxy)ethanol): 25 mg/kg bw/d
Exposure: Oral
Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-(2-ethoxyethoxy)ethanol): 9 mg/m³
Exposure: Inhalation
Duration of Exposure: Long term – Local effects - General population

DNEL (2-aminoethanol): 1 mg/kg bw/d
Exposure: Dermal

According to EC-Regulation 2015/830

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-aminoethanol): 3.3 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-aminoethanol): 3.3 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Local effects - Workers

DNEL (2-aminoethanol): 0.24 mg/kg bw/d

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-aminoethanol): 2 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - General population

DNEL (2-aminoethanol): 2 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Local effects - General population

DNEL (2-aminoethanol): 3.75 mg/kg bw/d

Exposure: Oral

Duration of Exposure: Long term – Systemic effects - General population

DNEL (1-butylpyrrolidin-2-one): 4mg/kg

Exposure: Oral

Duration of Exposure: Short term – Systemic effects - General population

DNEL (1-butylpyrrolidin-2-one): 4mg/kg

Exposure: Oral

Duration of Exposure: Long term – Systemic effects - General population

DNEL (1-butylpyrrolidin-2-one): 5mg/kg

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - General population

DNEL (1-butylpyrrolidin-2-one): 4.29mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - General population

DNEL (1-butylpyrrolidin-2-one): 10mg/kg

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (1-butylpyrrolidin-2-one): 24.1mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (Hydrocarbons, C9, aromatics): 150 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (Hydrocarbons, C9, aromatics): 25 mg/kg/d

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (Hydrocarbons, C9, aromatics): 11 mg/kg/d

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - General population

DNEL (Hydrocarbons, C9, aromatics): 32 mg/m³

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - General population

DNEL (Hydrocarbons, C9, aromatics): 11 mg/kg/d

Exposure: Oral

Duration of Exposure: Long term – Systemic effects - General population

PNEC (2-butoxyethanol): 8.8 mg/l

Exposure: Freshwater

According to EC-Regulation 2015/830

PNEC (2-butoxyethanol): 0.88 mg/l
Exposure: Marine water

PNEC (2-butoxyethanol): 463 mg/l
Exposure: Sewage Treatment Plant

PNEC (2-butoxyethanol): 34.6 mg/kg dw
Exposure: Freshwater sediment

PNEC (2-butoxyethanol): 3.46 mg/kg dw
Exposure: Marine water sediment

PNEC (2-butoxyethanol): 2.8 mg/kg dw
Exposure: Soil

PNEC (2-butoxyethanol): 9.1 mg/l
Exposure: Intermittent release

PNEC (2-(2-ethoxyethoxy)ethanol): 0.74 mg/l
Exposure: Freshwater

PNEC (2-(2-ethoxyethoxy)ethanol): 0.074 mg/l
Exposure: Marine water

PNEC (2-(2-ethoxyethoxy)ethanol): 10 mg/l
Exposure: Intermittent release

PNEC (2-(2-ethoxyethoxy)ethanol): 500 mg/l
Exposure: Sewage Treatment Plant

PNEC (2-(2-ethoxyethoxy)ethanol): 2.47 mg/kg dw
Exposure: Freshwater sediment

PNEC (2-(2-ethoxyethoxy)ethanol): 0.247mg/kg dw
Exposure: Marine water sediment

PNEC (2-(2-ethoxyethoxy)ethanol): 0.15 mg/kg dw
Exposure: Soil

PNEC (2-aminoethanol): 0.085 mg/l
Exposure: Freshwater

PNEC (2-aminoethanol): 0.0085 mg/l
Exposure: Marine water

PNEC (2-aminoethanol): 0.434 mg/kg dw
Exposure: Freshwater sediment

PNEC (2-aminoethanol): 0.0434 mg/kg dw
Exposure: Marine water sediment

PNEC (2-aminoethanol): 1.29 mg/kg dw
Exposure: Soil

PNEC (2-aminoethanol): 100 mg/l
Exposure: Sewage Treatment Plant

PNEC (2-aminoethanol): 0.028 mg/l
Exposure: Intermittent release

PNEC (1-butylpyrrolidin-2-one): 3.57mg/kg
Exposure: Soil

PNEC (1-butylpyrrolidin-2-one): 2.96mg/kg
Exposure: Marine water sediment

PNEC (1-butylpyrrolidin-2-one): 29.6mg/kg
Exposure: Freshwater sediment

PNEC (1-butylpyrrolidin-2-one): 30,62 mg/L
Exposure: Sewage Treatment Plant

According to EC-Regulation 2015/830

PNEC (1-butylpyrrolidin-2-one): 0,4mg/L
Exposure: Marine water

PNEC (1-butylpyrrolidin-2-one): 4mg/L
Exposure: Freshwater

8.2. Exposure controls

Compliance with the accepted occupational exposure limits values should be controlled on a regular basis.

General recommendations

Observe general occupational hygiene standards.

Exposure scenarios

There is no appendix to this safety data sheet.

Exposure limits

Professional users are subjected to the legally set maximum concentrations for occupational exposure. See occupational hygiene limit values above.

Appropriate technical measures

Ensure emergency eyewash and -showers are clearly marked.

Hygiene measures

In between use of the product and at the end of the working day all exposed areas of the body must be washed thoroughly. Always wash hands, forearms and face.

Measures to avoid environmental exposure

Keep containment materials near the workplace. If possible, collect spillage during work.

Individual protection measures, such as personal protective equipment



Generally

Use only CE marked protective equipment.

Respiratory Equipment

Recommended: A. Class 1 (low capacity). Brown

Skin protection

Wear appropriate protection clothing, e.g. coveralls in polypropylene approved type 6 and Category III.

Hand protection

Butyl rubber

Breakthrough time: > 480 minutes (Class 6)

Eye protection

Wear safety glasses with side shields.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Form	Liquid
Colour	Black
Odour	Solvent
Odour threshold (ppm)	No data available.
pH	10
Viscosity (40°C)	No data available.
Density (g/cm ³)	0.9

Phase changes

Melting point (°C)	No data available.
Boiling point (°C)	No data available.
Vapour pressure	No data available.
Decomposition temperature (°C)	No data available.
Evaporation rate (n-butylacetate = 100)	No data available.

Data on fire and explosion hazards

Flash point (°C)	57
Ignition (°C)	No data available.
Auto flammability (°C)	No data available.
Explosion limits (% v/v)	No data available.

According to EC-Regulation 2015/830

Explosive properties	No data available.
Solubility	
Solubility in water	Insoluble
n-octanol/water coefficient	No data available.
9.2. Other information	
Solubility in fat (g/L)	No data available.

SECTION 10: Stability and reactivity

10.1. Reactivity

No data available

10.2. Chemical stability

The product is stable under the conditions, noted in the section "Handling and storage".

10.3. Possibility of hazardous reactions

Nothing special

10.4. Conditions to avoid

Avoid static electricity. Do not expose to any forms of heat (e.g. solar radiation). May lead to excess pressure.

10.5. Incompatible materials

Strong acids, strong bases, strong oxidizing agents, and strong reducing agents.

10.6. Hazardous decomposition products

The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Substance: 2-aminoethanol

Species: Rat

Test: LD50

Route of exposure: Oral

Result: 1089 mg/kg

Substance: 2-aminoethanol

Species: Rat

Test: LD50

Route of exposure: Dermal

Result: 2504 mg/kg

Substance: 2-aminoethanol

Species: Rat

Test: LD50

Route of exposure: Inhalation

Result: 1478 mg/m³

Substance: 2-butoxyethanol

Species: Guinea pig

Test: LD50

Route of exposure: Oral

Result: 1414 mg/kg

Substance: 2-butoxyethanol

Species: Rat

Test: LC50

Route of exposure: Inhalation

Result: 2.56 mg/l/4h

Substance: 2-butoxyethanol

Species: Guinea pig

Test: LD0

Route of exposure: Dermal

Result: >2000 mg/kg

Substance: 2-butoxyethanol

Species: Rat

Test: LD50

Route of exposure: Oral

Result: 1300 mg/kg

According to EC-Regulation 2015/830

Substance: 2-(2-ethoxyethoxy)ethanol
 Species: Mouse
 Test: LD50
 Route of exposure: Oral
 Result: 6031 mg/kg

Substance: 2-(2-ethoxyethoxy)ethanol
 Species: Rabbit
 Test: LD50
 Route of exposure: Dermal
 Result: 9143 mg/kg

Substance: 2-(2-ethoxyethoxy)ethanol
 Species: Rat
 Test: LC0
 Route of exposure: Inhalation
 Result: 25 mg/m³

Substance: Hydrocarbons, C9, aromatics
 Species: Rat
 Test: LD50
 Route of exposure: Oral
 Result: 3492 mg/kg

Substance: Hydrocarbons, C9, aromatics
 Species: Rabbit
 Test: LD50
 Route of exposure: Dermal
 Result: 3160 mg/kg

Substance: Hydrocarbons, C9, aromatics
 Species: Rat
 Test: LC50
 Route of exposure: Inhalation
 Result: >6193 mg/m³

Substance: 1-butylpyrrolidin-2-one
 Species: Rat
 Test: LD50
 Route of exposure: Oral
 Result: 300-2000mg/kg

Substance: 1-butylpyrrolidin-2-one
 Species: Rabbit
 Test: LD50
 Route of exposure: Dermal
 Result: >2000mg/kg

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Data on substance: 2-aminoethanol

Germ cell mutagenicity

No data available.

Carcinogenicity

No data available.

Reproductive toxicity

No data available.

STOT-single exposure

May cause respiratory irritation. May cause drowsiness or dizziness.

STOT-repeated exposure

No data available.

Aspiration hazard

May be fatal if swallowed and enters airways.

Long term effects

This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: headache, dizziness, ringing in ears, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer and may result in an increased absorption potential of other hazardous substances at the area of exposure.

This product contains substances, which may cause irritation upon exposure to skin, eyes or lungs. Exposure may result in an increased absorption potential of other hazardous substances at the area of exposure.

SECTION 12: Ecological information

According to EC-Regulation 2015/830

12.1. Toxicity

Substance: 1-Heptanol, 2-propyl- , 5EO
Species: Fish
Test: LC50
Duration: 96h
Result: 10-100 mg/l

Substance: 1-Heptanol, 2-propyl- , 5EO
Species: Daphnia
Test: EC50
Duration: 48h
Result: 10-100 mg/l

Substance: 2-aminoethanol
Species: Fish
Test: LC50
Duration: 96h
Result: 349 mg/l

Substance: 2-aminoethanol
Species: Daphnia
Test: EC50
Duration: 48h
Result: 65 mg/l

Substance: 2-aminoethanol
Species: Algae
Test: EC50
Duration: 72h
Result: 2.5 mg/l

Substance: 2-aminoethanol
Species: Daphnia
Test: NOEC
Duration: 21d
Result: 0.85 mg/l

Substance: 2-butoxyethanol
Species: Algae
Test: EC50
Duration: 72h
Result: 1840 mg/l

Substance: 2-butoxyethanol
Species: Fish
Test: LC50
Duration: 96h
Result: 1474 mg/l

Substance: 2-butoxyethanol
Species: Daphnia
Test: EC50
Duration: 48h
Result: 1550 mg/l

Substance: 2-butoxyethanol
Species: Fish
Test: NOEC
Duration: 21d
Result: 100 mg/l

Substance: 2-butoxyethanol
Species: Daphnia
Test: NOEC
Duration: 21d
Result: 100 mg/l

Substance: 2-(2-ethoxyethoxy)ethanol
Species: Fish
Test: LC50
Duration: 96h
Result: 6010 mg/l

According to EC-Regulation 2015/830

Substance: 2-(2-ethoxyethoxy)ethanol
 Species: Daphnia
 Test: LC50
 Duration: 48h
 Result: 1982 mg/l

Substance: 2-(2-ethoxyethoxy)ethanol
 Species: Algae
 Test: EC50
 Duration: 96h
 Result: >100 mg/l

Substance: Hydrocarbons, C9, aromatics
 Species: Fish
 Test: LC50
 Duration: 96h
 Result: 9.2 mg/l

Substance: Hydrocarbons, C9, aromatics
 Species: Daphnia
 Test: EC50
 Duration: 48h
 Result: 3.2 mg/l

Substance: Hydrocarbons, C9, aromatics
 Species: Algae
 Test: EC50
 Duration: 72h
 Result: 2.9 mg/l

Substance: Hydrocarbons, C9, aromatics
 Species: Fish
 Test: NOEC
 Duration: 28d
 Result: 1.23 mg/l

Substance: Hydrocarbons, C9, aromatics
 Species: Daphnia
 Test: NOEC
 Duration: 21d
 Result: 2.14 mg/l

Substance: Hydrocarbons, C9, aromatics
 Species: Algae
 Test: NOEC
 Duration: 72h
 Result: 1 mg/l

Substance: 1-butylpyrrolidin-2-one
 Species: Fish
 Test: LC50
 Duration: 96h
 Result: >100mg/l

Substance: 1-butylpyrrolidin-2-one
 Species: Algae
 Test: EC50
 Duration: 72h
 Result: 130mg/l

Substance: 1-butylpyrrolidin-2-one
 Species: Daphnia
 Test: EC50
 Duration: 48h
 Result: >100mg/l

12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
1-Heptanol, 2-propyl-, 5EO	Yes	Closed Bottle Test	>60%
2-aminoethanol	Yes	DOC Die-Away Test	>90%
2-butoxyethanol	Yes	CO2 Evolution Test	90,4
2-(2-ethoxyethoxy)ethanol	Yes	CO2 Evolution Test	79,4%
Hydrocarbons, C9, aromatics	Yes	Manometric Respirometry	78%
1-butylpyrrolidin-2-one	Yes	Test	No data available

According to EC-Regulation 2015/830

No data available

12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
1-Heptanol, 2-propyl-, 5EO	No	No data available	No data available
2-aminoethanol	No	-1.91	No data available
2-butoxyethanol	No	0.81	No data available
2-(2-ethoxyethoxy)ethanol	No	-0.54	3
Hydrocarbons, C9, aromatics	No	4.5	No data available
1-butylpyrrolidin-2-one	No	1.265	No data available

12.4. Mobility in soil

2-aminoethanol: Log Koc= -1.434129, Calculated from LogPow ().
 2-butoxyethanol: Log Koc= 0.719839, Calculated from LogPow (High mobility potential.).
 2-(2-ethoxyethoxy)ethanol: Log Koc= -0.349226, Calculated from LogPow (High mobility potential.).
 Hydrocarbons, C9, aromatics: Log Koc= 3.64195, Calculated from LogPow (Moderate mobility potential.).
 1-butylpyrrolidin-2-one: Log Koc= 1.0801535, Calculated from LogPow (High mobility potential.).

12.5. Results of PBT and vPvB assessment

This mixture/product does not contain any substances considered to meet the criteria classifying them as PBT and/or vPvB.

12.6. Other adverse effects

This product contains substances that are toxic to the environment. May result in adverse effects to aquatic organisms.
 This product contains substances, which may cause adverse long-term effects to the aquatic environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

Waste

EWC code

-

Specific labelling

Not applicable

Contaminated packing

Contaminated packaging must be disposed of similarly to the product.

SECTION 14: Transport information

14.1 – 14.4

This product is within scope of the regulations of transport of dangerous goods.

ADR/RID

14.1. UN number	1993
14.2. UN proper shipping name	FLAMMABLE LIQUID, N.O.S.
14.3. Transport hazard class(es)	3
14.4. Packing group	III
Notes	-
Tunnel restriction code	-

IMDG

UN-no.	1993
Proper Shipping Name	FLAMMABLE LIQUID, N.O.S.
Class	3
PG*	III
EmS	F-E, S-E
MP**	No
Hazardous constituent	-

IATA/ICAO

UN-no.	1993
Proper Shipping Name	FLAMMABLE LIQUID, N.O.S.
Class	3
PG*	III

14.5. Environmental hazards

-

14.6. Special precautions for user

-

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

No data available

(*) Packing group

(**) Marine pollutant

SECTION 15: Regulatory information

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

Restrictions for application

People under the age of 18 shall not be exposed to this product cf. Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

Pregnant women and women breastfeeding must not be exposed to this product. The risk, and possible technical precautions or design of the workplace needed to eliminate exposure, must be considered.

Demands for specific education

-

Additional information

The surfactant(s) contained in this preparation complies(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.

Seveso

Seveso III Part 1: P5c, E2

Biocidal reg. no.

Not applicable

Sources

Council Directive 92/85/EEC on the introduction of measures to encourage improvements in the safety and health at work of pregnant workers and workers who have recently given birth or are breastfeeding.

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work.

The Control of Substances Hazardous to Health Regulations 2002. SI 2002/2677. The Stationery Office, 2002.

Regulation (EC) No 648/2004 of the European Parliament and of the Council of 31 March 2004 on detergents.

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 (CLP).

Regulation (EC) 1907/2006 (REACH).

The Control of Major Accident Hazards (COMAH) Regulations 2015.

15.2. Chemical safety assessment

No

SECTION 16: Other information

Full text of H-phrases as mentioned in section 3

H226 - Flammable liquid and vapour.

H302 - Harmful if swallowed.

H304 - May be fatal if swallowed and enters airways.

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.

H336 - May cause drowsiness or dizziness.

H411 - Toxic to aquatic life with long lasting effects.

EUH066 - Repeated exposure may cause skin dryness or cracking.

The full text of identified uses as mentioned in section 1

-

Additional label elements

Not applicable

Other

In accordance with Regulation (EC) No. 1272/2008 (CLP) the evaluation of the classification of the mixture is based on:

The classification of the mixture in regard of physical hazards has been based on experimental data.

According to EC-Regulation 2015/830

The classification of the mixture in regard of health hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

The classification of the mixture in regard of environmental hazards are in accordance with the calculation methods given by Regulation (EC) No. 1272/2008 (CLP)

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version, see section 1)) is marked with a blue triangle.

The safety data sheet is validated by

Cecilia Evaldsson

Date of last essential change

(First cipher in SDS version)

-

Date of last minor change

(Last cipher in SDS version)

-