

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Trade name**

Graffiti Remover Kilroy

**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**

2021-02-09

**SDS Version**

2.0

### 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

Asp. Tox. 1; H304  
Skin Corr. 1A; H314  
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**

Danger

**Hazard statement(s)**

According to EC-Regulation 2015/830

May be fatal if swallowed and enters airways. (H304)  
 Causes severe skin burns and eye damage. (H314)  
 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** Do not breathe mist/vapours/fume/spray. (P260).  
**Response** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. (P303+P361+P353).  
**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**

formic acid; Hydrocarbons, C9, aromatics; Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)

**Additional labelling**

Not applicable

**Unique formula identifier (UFI)**

QFUX-0VDP-D009-F1CA

**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.

**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: formic acid  
 IDENTIFICATION NOS.: CAS-no: 64-18-6 EC-no: 200-579-1 REACH-no: 01-2119491174-37 Index-no: 607-001-00-0  
 CONTENT: 25-40%  
 CLP CLASSIFICATION: Skin Corr. 1A  
 H314  
 NOTE: O L

NAME: Hydrocarbons, C9, aromatics  
 IDENTIFICATION NOS.: CAS-no: 128601-23-0 EC-no: 918-668-5 REACH-no: 01-2119455851-35  
 CONTENT: 15 - <25%  
 CLP CLASSIFICATION: Flam. Liq. 3, STOT SE 3, Asp. Tox. 1, Aquatic Chronic 2  
 H226, H304, H335, H336, H411, EUH066  
 NOTE: O

NAME: 1-butylpyrrolidin-2-one  
 IDENTIFICATION NOS.: CAS-no: 3470-98-2 EC-no: 222-437-8 REACH-no: 01-2120062728-48  
 CONTENT: 10 - <15%  
 CLP CLASSIFICATION: Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2  
 H302, H315, H319

NAME: dimethyl glutarate  
 IDENTIFICATION NOS.: CAS-no: 1119-40-0 EC-no: 214-277-2 REACH-no: 01-2119900156-49  
 CONTENT: 10 - <15%  
 CLP CLASSIFICATION: NA

NAME: Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)  
 IDENTIFICATION NOS.: CAS-no: 68155-07-7 EC-no: 268-935-9 REACH-no: 01-2119490100-53  
 CONTENT: 10 - <15%  
 CLP CLASSIFICATION: Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 2  
 H315, H318, H411

NAME: dimethyl succinate  
 IDENTIFICATION NOS.: CAS-no: 106-65-0 EC-no: 203-419-9 REACH-no: 01-2119486681-29  
 CONTENT: 5 - <10%  
 CLP CLASSIFICATION: NA

According to EC-Regulation 2015/830

NAME: Fettalkoholetoxyolat, propoxylerad  
 IDENTIFICATION NOS.: CAS-no: 68154-97-2 EC-no: 935-890-8  
 CONTENT: 5 - <10%  
 CLP CLASSIFICATION: Eye Irrit. 2  
 H319

NAME: 2-(2-ethoxyethoxy)ethanol  
 IDENTIFICATION NOS.: CAS-no: 111-90-0 EC-no: 203-919-7 REACH-no: 01-2119475105-42  
 CONTENT: 2.5 - <5%  
 CLP CLASSIFICATION: NA

NAME: dimethyl adipate  
 IDENTIFICATION NOS.: CAS-no: 627-93-0 EC-no: 211-020-6 REACH-no: 01-2119911093-50  
 CONTENT: 1 - <2.5%  
 CLP CLASSIFICATION: NA

(\* ) 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(oral) > 2000  
 Eye Cat. 1 Sum = Sum(Ci/S(G)CLi) = 4.3768 - 6.5652  
 Skin Corr. 1A Sum = Sum(Ci/S(G)CLi) = 4 - 6  
 N chronic (CAT 2) Sum = Sum(Ci/(M(chronic)<sup>i</sup>\*25)\*0.1\*10<sup>^</sup>CATi) = 1.005184 - 1.507776

Detergent:  
 15 - 30%: AROMATIC HYDROCARBONS, 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

Immediately remove contaminated clothing and shoes. Ensure that skin, which has been exposed to the material, is washed 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

Not applicable

#### 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.

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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.

### 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

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.

#### Storage temperature

Room temperature 18 to 23°C

### 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

formic acid

Long-term exposure limit (8-hour TWA reference period): 5 ppm | 9,6 mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): - ppm | - mg/m<sup>3</sup>

#### ▼ DNEL / PNEC

DNEL (dimethyl succinate): 1,1mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Short term – Local effects - Workers

DNEL (dimethyl succinate): 6.8mg/kg/d

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (dimethyl succinate): 33,5mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (dimethyl succinate): 1,1mg/m<sup>3</sup>

According to EC-Regulation 2015/830

Exposure: Inhalation  
Duration of Exposure: Long term – Local effects - Workers

DNEL (dimethyl succinate): 12,6mg/kg  
Exposure: Dermal  
Duration of Exposure: Short term – Systemic effects - Workers

DNEL (dimethyl succinate): 67mg/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Short term – Systemic effects - Workers

DNEL (dimethyl glutarate): 8,3mg/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Long term – Local effects - Workers

DNEL (dimethyl glutarate): 49,8mg/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Long term – Local effects - Workers

DNEL (dimethyl glutarate): 5mg/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Long term – Local effects - General population

DNEL (dimethyl glutarate): 50mg/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Short term – Local 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/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-(2-ethoxyethoxy)ethanol): 18 mg/m<sup>3</sup>  
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/m<sup>3</sup>  
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/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Long term – Local effects - General population

DNEL (formic acid): 9,5mg/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Long term – Local effects - Workers

DNEL (formic acid): 9,5mg/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Short term – Local effects - General population

DNEL (formic acid): 3mg/3  
Exposure: Inhalation  
Duration of Exposure: Long term – Local effects - General population

DNEL (formic acid): 19mg/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Short term – Local effects - Workers

According to EC-Regulation 2015/830

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/m<sup>3</sup>  
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/m<sup>3</sup>  
Exposure: Inhalation  
Duration of Exposure: Long term – Systemic effects - Workers

DNEL ( Hydrocarbons, C9, aromatics): 150 mg/m<sup>3</sup>  
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/m<sup>3</sup>  
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 (dimethyl succinate): 0,05mg/l  
Exposure: Freshwater

PNEC (dimethyl succinate): 0,005mg/l  
Exposure: Marine water

PNEC (dimethyl succinate): 0,5mg/l  
Exposure: Intermittent release

PNEC (dimethyl succinate): 10mg/l  
Exposure: Sewage Treatment Plant

PNEC (dimethyl succinate): 0,137mg/kg  
Exposure: Freshwater sediment

PNEC (dimethyl succinate): 0,014mg/kg  
Exposure: Marine water sediment

PNEC (dimethyl adipate): 0,018mg/l  
Exposure: Freshwater

PNEC (dimethyl adipate): 0,0018mg/l  
Exposure: Marine water

PNEC (dimethyl adipate): 0,18mg/l  
Exposure: Intermittent release

PNEC (dimethyl adipate): 0,16mg/kg

According to EC-Regulation 2015/830

Exposure: Freshwater sediment  
PNEC (dimethyl adipate): 0,016  
Exposure: Marine water sediment

PNEC (dimethyl adipate): 0,09mg/kg  
Exposure: Soil

PNEC (dimethyl adipate): 10mg/l  
Exposure: Sewage Treatment Plant

PNEC (dimethyl glutarate): 0,018mg/l  
Exposure: Freshwater

PNEC (dimethyl glutarate): 0,0018/mg/l  
Exposure: Marine water

PNEC (dimethyl glutarate): 0,018/mg/l  
Exposure: Intermittent release

PNEC (dimethyl glutarate): 0,16mg/kg  
Exposure: Freshwater sediment

PNEC (dimethyl glutarate): 0,016mg/kg  
Exposure: Marine water sediment

PNEC (dimethyl glutarate): 0,09mg/kg  
Exposure: Soil

PNEC (dimethyl glutarate): 10mg/l  
Exposure: Sewage Treatment Plant

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 (formic acid): 2mg/l  
Exposure: Freshwater

PNEC (formic acid): 13,4mg/l  
Exposure: Freshwater sediment

PNEC (formic acid): 1,5mg/kg  
Exposure: Soil

PNEC (formic acid): 7,2mg/l  
Exposure: Sewage Treatment Plant

PNEC (formic acid): 0,2mg/l  
Exposure: Marine water

PNEC (formic acid): 1mg/l  
Exposure: Intermittent release

PNEC (formic acid): 1,34mg/kg  
Exposure: Marine water sediment

According to EC-Regulation 2015/830

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

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

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

PNEC (Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)): 0.007 mg/l  
Exposure: Freshwater

PNEC (Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)): 0.0007 mg/l  
Exposure: Marine water

PNEC (Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)): 0.024 mg/l  
Exposure: Intermittent release

PNEC (Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)): 0.195 mg/kg dw  
Exposure: Freshwater sediment

PNEC (Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)): 0.0195 mg/kg dw  
Exposure: Marine water sediment

PNEC (Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)): 830 mg/l  
Exposure: Sewage Treatment Plant

PNEC (Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)): 0.0348 mg/kg dw  
Exposure: Soil

## 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



According to EC-Regulation 2015/830

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

**Hand protection**

Nitrile 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                       | Tan                |
| Odour                        | Sharp/pungent      |
| Odour threshold (ppm)        | No data available. |
| pH                           | 1                  |
| Viscosity (40°C)             | No data available. |
| Density (g/cm <sup>3</sup> ) | 1                  |

**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)         | 70                 |
| Ignition (°C)            | No data available. |
| Auto flammability (°C)   | No data available. |
| Explosion limits (% v/v) | No data available. |
| Explosive properties     | No data available. |

**Solubility**

|                             |                    |
|-----------------------------|--------------------|
| Solubility in water         | Soluble            |
| 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**

Nothing special

**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: dimethyl adipate  
 Species: Rat  
 Test: LD50  
 Route of exposure: Dermal  
 Result: 2000mg/kg

Substance: dimethyl adipate  
 Species: Rat  
 Test: LD50

According to EC-Regulation 2015/830

Route of exposure: Oral  
Result: 5000mg/kg

Substance: dimethyl adipate  
Species: Rat  
Test: LC50  
Route of exposure: Inhalation  
Result: 11000mg/l

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

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

Substance: 2-(2-ethoxyethoxy)ethanol  
Species: Rat  
Test: LC0  
Route of exposure: Inhalation  
Result: 25 mg/m<sup>3</sup>

Substance: Fettalkoholetoxyolat, propoxylerad  
Species: Rat  
Test: LD50  
Route of exposure: Oral  
Result: >5000mg/kg

Substance: dimethyl succinate  
Species: Rat  
Test: LD50  
Route of exposure: Dermal  
Result: 2000mg/kg

Substance: dimethyl succinate  
Species: Rat  
Test: LD50  
Route of exposure: Oral  
Result: 5000mg/kg

Substance: dimethyl succinate  
Species: Rat  
Test: LC50  
Route of exposure: Inhalation  
Result: 11000mg/l

Substance: Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)  
Species: Rabbit  
Test: LD50  
Route of exposure: Dermal  
Result: >2000 mg/kg bw

Substance: Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)  
Species: Rat  
Test: LD50  
Route of exposure: Oral  
Result: >5000 mg/kg bw

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

Substance: 1-butylpyrrolidin-2-one  
Species: Rat  
Test: LD50  
Route of exposure: Oral

According to EC-Regulation 2015/830

Result: 300-2000mg/kg

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

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

Substance: Hydrocarbons, C9, aromatics  
Species: Rat  
Test: LC50  
Route of exposure: Inhalation  
Result: >6193 mg/m<sup>3</sup>

Substance: formic acid  
Species: Rat  
Test: LD50  
Route of exposure: Oral  
Result: 730mg/kg

Substance: formic acid  
Species: Rat  
Test: LC50  
Route of exposure: Inhalation  
Result: 7,85mg/l

**Skin corrosion/irritation**

Causes severe skin burns and eye damage.

Data on substance: Fettkohletoxyolat, propoxylerad

**Serious eye damage/irritation**

Causes serious eye damage.

**Respiratory or skin sensitisation**

No data available.

**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.

Data on substance: formic acid

**STOT-repeated exposure**

No data available.

**Aspiration hazard**

May be fatal if swallowed and enters airways.

**Long term effects**

Tissue-damaging effects: This product contains substances with skin corrosive properties. Inhaled vapour or aerosols may produce adverse effects to lungs, -irritations and burns in the respiratory organs -as well as coughing. Dermal contact and contact with the eye cause irreversible effects.

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**

**▼12.1. Toxicity**

Substance: dimethyl adipate  
Species: Daphnia  
Test: EC50  
Duration: 48h  
Result: 112-150mg/l

Substance: dimethyl adipate  
Species: Fish  
Test: LC50  
Duration: 96h  
Result: 18-24mg/l

According to EC-Regulation 2015/830

Substance: dimethyl adipate  
Species: Algae  
Test: EC50  
Duration: 72h  
Result: >85mg/l

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

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

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

Substance: Fettalkoholetoxylat, propoxylrad  
Species: Daphnia  
Test: EC50  
Duration: 48h  
Result: 1-10mg/l

Substance: Fettalkoholetoxylat, propoxylrad  
Species: Fish  
Test: LC50  
Duration: 96h  
Result: 1-10mg/l

Substance: Fettalkoholetoxylat, propoxylrad  
Species: Algae  
Test: EC50  
Duration: 72h  
Result: 1-10mg/l

Substance: dimethyl succinate  
Species: Daphnia  
Test: EC50  
Duration: 48h  
Result: 112-150mg/l

Substance: dimethyl succinate  
Species: Fish  
Test: LC50  
Duration: 96h  
Result: 12-24mg/l

Substance: dimethyl succinate  
Species: Algae  
Test: EC50  
Duration: 72h  
Result: >85mg/l

Substance: Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)  
Species: Daphnia  
Test: NOEC  
Duration: 21 d  
Result: 0,07 mg/l

Substance: Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)  
Species: Daphnia  
Test: EC50  
Duration: 48 h  
Result: 1-10 mg/l

According to EC-Regulation 2015/830

Substance: Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)  
Species: Fish  
Test: NOEC  
Duration: 28 d  
Result: 0,32 mg/l

Substance: Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)  
Species: Fish  
Test: LC50  
Duration: 96 h  
Result: 1-10 mg/l

Substance: Amides, C8-18 and C18-unsatd., N,N-bis(hydroxyethyl)  
Species: Algae  
Test: EC50  
Duration: 72 h  
Result: 1-10 mg/l

Substance: 1-butylpyrrolidin-2-one  
Species: Daphnia  
Test: EC50  
Duration: 48h  
Result: >100mg/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: Hydrocarbons, C9, aromatics  
Species: Daphnia  
Test: NOEC  
Duration: 21d  
Result: 2.14 mg/l

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

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

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

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

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

Substance: formic acid

According to EC-Regulation 2015/830

Species: Daphnia  
Test: EC50  
Duration: 48h  
Result: 365mg/l

Substance: formic acid  
Species: Fish  
Test: LC50  
Duration: 96h  
Result: 130mg/l

Substance: formic acid  
Species: Algae  
Test: EC50  
Duration: 72h  
Result: 1240mg/l

#### ▼ 12.2. Persistence and degradability

| Substance                         | Biodegradability | Test                         | Result            |
|-----------------------------------|------------------|------------------------------|-------------------|
| dimethyl adipate                  | Yes              | No data available            | No data available |
| 2-(2-ethoxyethoxy)ethanol         | Yes              | CO2 Evolution Test           | 79.4%             |
| Fettalkoholetoxylat, propoxyle... | Yes              | CO2 Evolution Test           | >60% 28d          |
| dimethyl succinate                | Yes              | No data available            | No data available |
| Amides, C8-18 and C18-unsatd,.... | Yes              | No data available            | No data available |
| dimethyl glutarate                | Yes              | No data available            | No data available |
| 1-butylpyrrolidin-2-one           | Yes              | No data available            | No data available |
| Hydrocarbons, C9, aromatics       | Yes              | Manometric Respirometry Test | 78%               |
| formic acid                       | Yes              | No data available            | No data available |

#### ▼ 12.3. Bioaccumulative potential

| Substance                         | Potential bioaccumulation | LogPow | BCF               |
|-----------------------------------|---------------------------|--------|-------------------|
| 2-(2-ethoxyethoxy)ethanol         | No                        | -0.54  | 3                 |
| Amides, C8-18 and C18-unsatd,.... | No                        | 375    | No data available |
| 1-butylpyrrolidin-2-one           | No                        | 1.265  | No data available |
| Hydrocarbons, C9, aromatics       | No                        | 4.5    | No data available |
| formic acid                       | No                        | -2.1   | No data available |

#### ▼ 12.4. Mobility in soil

2-(2-ethoxyethoxy)ethanol: Log Koc= -0.349226, Calculated from LogPow ().  
Amides, C8-18 and C18-unsatd,....: Log Koc= 297.0409, Calculated from LogPow ().  
1-butylpyrrolidin-2-one: Log Koc= 1.0801535, Calculated from LogPow (High mobility potential).  
Hydrocarbons, C9, aromatics: Log Koc= 3.64195, Calculated from LogPow (Moderate mobility potential).  
formic acid: Log Koc= -1.58459, Calculated from LogPow (Moderate 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                  | 3265                                      |
| 14.2. UN proper shipping name    | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. |
| 14.3. Transport hazard class(es) | 8   |
| 14.4. Packing group              | II  |

According to EC-Regulation 2015/830

|                                |   |
|--------------------------------|---|
| <b>Notes</b>                   | -   |
| <b>Tunnel restriction code</b> | E   |
| <b>IMDG</b>                    |   |
| <b>UN-no.</b>                  | 3265                                      |
| <b>Proper Shipping Name</b>    | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. |
| <b>Class</b>                   | 8   |
| <b>PG*</b>                     | II  |
| <b>EmS</b>                     | F-A,S-B                                   |
| <b>MP**</b>                    | No  |
| <b>Hazardous constituent</b>   | -   |
| <b>IATA/ICAO</b>               |   |
| <b>UN-no.</b>                  | 3265                                      |
| <b>Proper Shipping Name</b>    | CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. |
| <b>Class</b>                   | 8   |
| <b>PG*</b>                     | II  |

**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.

**Demands for specific education**

-

**Additional information**

Not applicable

**Seveso**

Seveso III Part 1: E2

**Biocidal reg. no.**

Not applicable

**Sources**

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.
- H314 - Causes severe skin burns and eye damage.
- H315 - Causes skin irritation.
- H318 - Causes serious eye damage.

According to EC-Regulation 2015/830

H319 - Causes serious eye irritation.  
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 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)

The classification of the mixture in regard of skin corrosion and serious eye damage is based on the pH-criterion 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**

David Löwenstein

**Date of last essential change  
(First cipher in SDS version)**

2020-08-24(1.0)

**Date of last minor change  
(Last cipher in SDS version)**

2020-08-24