

# SAFETY DATA SHEET

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

### 1.1. Product identifier

**Trade name**

AGS 5 SR HAWK WIPES

**Product no.**

3998

**REACH registration number**

Not applicable

**Unique formula identifier (UFI)**

-

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

**Relevant identified uses of the substance or mixture**

Graffiti Remover

**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**

Trion Tensid AB  
Svederusgatan 1-3  
SE-754 50 Uppsala  
Sweden  
Phone: +46 (0)18 15 61 90

**Contact person**

Magnus Kolsmyr

**E-mail**

info@trion.se

**SDS date**

2018-11-01

**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  
Skin Irrit. 2; H315  
Eye Irrit. 2; H319  
See full text of H-phrases in section 2.2.

### 2.2. Label elements

**Hazard pictogram(s)**



**Signal word**

Warning

**Hazard statement(s)**

Flammable liquid and vapour. (H226)

Harmful if swallowed. (H302)

Causes skin irritation. (H315)

Causes serious eye irritation. (H319)

**Precautionary statements**

General

-

Prevention

Wear protective gloves/protective clothing/eye protection/face 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).

If eye irritation persists: Get medical advice/attention. (P337+P313).

Storage

Store in a well-ventilated place. Keep cool. (P403+P235).

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, 2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve, potassium hydroxide caustic potash

**2.3. Other hazards**

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 labelling**

Not applicable

**Additional warnings**

Not applicable

**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
CONTENT:	25-40%
CLP CLASSIFICATION:	Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2 H302, H315, H319
NAME:	2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether
IDENTIFICATION NOS.:	CAS-no: 112-34-5 EC-no: 203-961-6
CONTENT:	15 - <25%
CLP CLASSIFICATION:	Eye Irrit. 2 H319
NOTE:	L
NAME:	2-(2-ethoxyethoxy)ethanol
IDENTIFICATION NOS.:	CAS-no: 111-90-0 EC-no: 203-919-7
CONTENT:	15 - <25%
CLP CLASSIFICATION:	NA
NAME:	ethanol ethyl alcohol
IDENTIFICATION NOS.:	CAS-no: 64-17-5 EC-no: 200-578-6 REACH-no: 02-2119666127-35
CONTENT:	10 - <15%
CLP CLASSIFICATION:	Flam. Liq. 2 H225
NOTE:	S
NAME:	2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve
IDENTIFICATION NOS.:	CAS-no: 111-76-2 EC-no: 203-905-0 REACH-no: 01-2119475108-36
CONTENT:	5 - <10%
CLP CLASSIFICATION:	Acute Tox. 4, Acute Tox. 4, Skin Irrit. 2, Eye Irrit. 2, Acute Tox. 4 H302, H312, H315, H319, H332
NOTE:	S L
NAME:	potassium hydroxide caustic potash

According to EC-Regulation 2015/830

IDENTIFICATION NOS.:	CAS-no: 1310-58-3 EC-no: 215-181-3
CONTENT:	1 - <2.5%
CLP CLASSIFICATION:	Acute Tox. 4, Skin Corr. 1A H302, H314

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

#### Other information

ATEmix(inhale, vapour) > 20  
ATEmix(dermal) > 2000  
ATEmix(oral) = 956,936 - 1435,404  
Eye Cat. 2 Sum = Sum(Ci/S(G)CLi) = 7,992 - 11,988  
Skin Cat. 2 Sum = Sum(Ci/S(G)CLi) = 6,232 - 9,348

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

The product is an article and is unlikely to be of any chemical risk.

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

Exposure is not likely due to the physical state of the product (article).

#### Skin contact

Remove contaminated clothing and shoes immediately. Ensure to wash exposed skin thoroughly with soap and water. Skin cleanser can be used. DO NOT use solvents or thinners.

#### Eye contact

Remove contact lenses. Flush eyes immediately with plenty of water or isotonic water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure to flush under the upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

#### Ingestion

In the case of ingestion, contact a doctor immediately and bring the safety data sheet or label. If the person is conscious, give them water. DO NOT try to induce vomiting, unless this is recommended by a doctor. Hold head facing down to prevent vomit returning to the mouth and throat. Prevent shock by keeping the injured person warm and calm. Initiate immediate resuscitation if breathing stops. If unconscious, roll the injured person into recovery position. Call an ambulance.

#### 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

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, 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.

Irritation 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 eye irritation persists: Get medical advice/attention.

#### Information to medics

Bring this safety data sheet.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Waterjets should not be used, since they can spread the fire.

### 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. Some metal 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

Storages not yet ignited must be cooled by water mist. Remove flammable materials if conditions allow it. Ensure sufficient ventilation.

### 6.2. Environmental precautions

No specific requirements.

### 6.3. Methods and material for containment and cleaning up

Not applicable due to the physical state of the product (article).

### 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. To divert static electricity during transmission, containers must be grounded and connected by wire with the receiving containers. Do not use spark-forming tools.

Smoking, storage of tobacco, consumption and storage of food or liquids are not allowed in the workrooms. See section on 'Exposure controls/personal protection' for information on personal protection.

### 7.2. Conditions for safe storage, including any incompatibilities

Nothing special (article).

#### Storage temperature

4 - 25 °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

potassium hydroxide caustic potash

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

Short-term exposure limit (15-minute reference period): - ppm | 2 mg/m<sup>3</sup>

2-butoxyethanol ethylene glycol monobutyl ether butyl cell...

Long-term exposure limit (8-hour TWA reference period): 25 ppm | 123 mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): 50 ppm | - mg/m<sup>3</sup>

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

ethanol ethyl alcohol

Long-term exposure limit (8-hour TWA reference period): 1000 ppm | 1920 mg/m<sup>3</sup>

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

2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether

Long-term exposure limit (8-hour TWA reference period): 10 ppm | 67,5 mg/m<sup>3</sup>

Short-term exposure limit (15-minute reference period): 15 ppm | 101.2 mg/m<sup>3</sup>

#### DNEL / PNEC

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

Exposure: Oral

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

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

According to EC-Regulation 2015/830

Exposure: Oral

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

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

Exposure: Dermal

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

DNEL (1-butylpyrrolidin-2-one): 17,4 mg/m<sup>3</sup>

Exposure: Inhalation

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

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

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (1-butylpyrrolidin-2-one): 70,5 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-(2-ethoxyethoxy)ethanol): 83 mg/kg bw/day

Exposure: Dermal

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-(2-ethoxyethoxy)ethanol): 61 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-(2-ethoxyethoxy)ethanol): 30 mg/m<sup>3</sup>

Exposure: Inhalation

Duration of Exposure: Long term – Local effects - Workers

DNEL (2-(2-ethoxyethoxy)ethanol): 50 mg/kg bw/day

Exposure: Oral

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

DNEL (2-(2-ethoxyethoxy)ethanol): 25 mg/kg bw/day

Exposure: Dermal

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

DNEL (2-(2-ethoxyethoxy)ethanol): 37 mg/m<sup>3</sup>

Exposure: Inhalation

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

DNEL (2-(2-ethoxyethoxy)ethanol): 18 mg/m<sup>3</sup>

Exposure: Inhalation

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

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 59 mg/kbm

Exposure: Inhalation

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

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 75 mg/kg bw/day

Exposure: Dermal

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

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 147 mg/kbm

Exposure: Inhalation

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

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 26,7 mg/kg bw/day

Exposure: Oral

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

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 426 mg/kbm

Exposure: Inhalation

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

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 89 mg/kg bw/day

Exposure: -

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

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 98 mg/kg bw/day

Exposure: Inhalation

Duration of Exposure: Long term – Systemic effects - Workers

According to EC-Regulation 2015/830

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 125 mg/kg bw/day  
Exposure: Dermal  
Duration of Exposure: Long term – Systemic effects - Workers

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 246 mg/kbm  
Exposure: Inhalation  
Duration of Exposure: Short term – Local effects - Workers

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 1091 mg/kbm  
Exposure: Inhalation  
Duration of Exposure: Short term – Systemic effects - Workers

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 89 mg/kg bw/day  
Exposure: Dermal  
Duration of Exposure: Short term – Systemic effects - Workers

DNEL (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 6,3 mg/kg bw/day  
Exposure: Oral  
Duration of Exposure: Long term – Systemic effects - General population

PNEC (1-butylpyrrolidin-2-one): 0,7955 mg/kg  
Exposure: Soil  
Duration of Exposure: Single

PNEC (1-butylpyrrolidin-2-one): 06336 mg/kg  
Exposure: Marine water sediment  
Duration of Exposure: Single

PNEC (1-butylpyrrolidin-2-one): 6,336 mg/kg  
Exposure: Freshwater sediment  
Duration of Exposure: Single

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

PNEC (1-butylpyrrolidin-2-one): 1 mg/L  
Exposure: Water  
Duration of Exposure: Single

PNEC (1-butylpyrrolidin-2-one): 0,08 mg/L  
Exposure: Marine water  
Duration of Exposure: Single

PNEC (1-butylpyrrolidin-2-one): 0,8 mg/L  
Exposure: Freshwater  
Duration of Exposure: Single

PNEC (2-(2-ethoxyethoxy)ethanol): 7,32 mg/kg  
Exposure: Marine water sediment  
Duration of Exposure: Single

PNEC (2-(2-ethoxyethoxy)ethanol): 0,732 mg/kg  
Exposure: Freshwater sediment  
Duration of Exposure: Single

PNEC (2-(2-ethoxyethoxy)ethanol): 500 mg/L  
Exposure: Sewage Treatment Plant  
Duration of Exposure: Single

PNEC (2-(2-ethoxyethoxy)ethanol): 0,198 mg/L  
Exposure: Marine water  
Duration of Exposure: Single

PNEC (2-(2-ethoxyethoxy)ethanol): 1,98 mg/L  
Exposure: Freshwater  
Duration of Exposure: Single

PNEC (2-(2-ethoxyethoxy)ethanol): 0,34 mg/kg  
Exposure: Soil  
Duration of Exposure: Single

PNEC (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 8,8 mg/L

According to EC-Regulation 2015/830

Exposure: Freshwater

Duration of Exposure: Single

PNEC (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 0,88 mg/L

Exposure: Marine water

Duration of Exposure: Single

PNEC (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 9,1 mg/L

Exposure: Water

Duration of Exposure: Continuous

Remarks: Intermittent releases

PNEC (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 463 mg/L

Exposure: Sewage Treatment Plant

Duration of Exposure: Single

PNEC (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 34,6 mg/kg

Exposure: Freshwater sediment

Duration of Exposure: Single

PNEC (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 3,46 mg/kg

Exposure: Marine water sediment

Duration of Exposure: Single

PNEC (2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve): 2,33 mg/kg

Exposure: Soil

Duration of Exposure: Single

## 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

In the event exposure scenarios are appended to the safety data sheet, the operational conditions and risk management measures in these shall be complied with.

### Exposure limits

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

### Appropriate technical measures

Airborne gas and dust concentrations must be kept at a minimum and below current limit values (see above). Installation of an exhaust system if normal air flow in the work room is not sufficient is recommended. 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

No specific requirements.

### Individual protection measures, such as personal protective equipment



### Generally

Use only CE marked protective equipment.

### Respiratory Equipment

In the event of insufficient ventilation

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

### Skin protection

Dedicated work clothing should be worn.

### Hand protection

Nitrile rubber

Can be reused after cleaning

### Eye protection

Wear safety glasses with side shields.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Form	
Colour	Tan
Odour	Solvent
Odour threshold (ppm)	No data available.
pH	No data available.
Viscosity (40°C)	No data available.
Density (g/cm <sup>3</sup> )	0,97

#### Phase changes

Melting point (°C)	No data available.
Boiling point (°C)	120-180
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)	36
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.
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## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No data available

### 10.2. Chemical stability

Shelf life: 24 months.

Shelf life after opening: 18 months

### 10.3. Possibility of hazardous reactions

Nothing special

### 10.4. Conditions to avoid

Avoid static electricity.

### 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: potassium hydroxide caustic potash

Species: Rat

Test: LD50

Route of exposure: Oral

Result: 273 mg/kg

Substance: 2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve

Species: Rat

Test: LD50

Route of exposure: Oral



According to EC-Regulation 2015/830

Result: 2000 mg/kg

Substance: 2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve

Species: Rat

Test: LC50

Route of exposure: Inhalation

Result: 2,2 mg/l (4 h)

Substance: 2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve

Species: Rat

Test: LD50

Route of exposure: Dermal

Result: 2270 mg/kg

Substance: 2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve

Species: Rabbit

Test: LD50

Route of exposure: Dermal

Result: 220 mg/kg

Substance: ethanol ethyl alcohol

Species: Rat

Test: LD50

Route of exposure: Oral

Result: 7060 mg/kg

Substance: ethanol ethyl alcohol

Species: Rabbit

Test: LD50

Route of exposure: Dermal

Result: >20000 mg/kg

Substance: ethanol ethyl alcohol

Species: Rat

Test: LC50

Route of exposure: Inhalation

Result: 124,7 mg/L

Substance: 2-(2-ethoxyethoxy)ethanol

Species: Rat

Test: LD lo

Route of exposure: Inhalation

Result: 0,025 mg/L

Substance: 2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether

Species: Rat

Test: LD50

Route of exposure: Oral

Result: 5660 mg/kg

Substance: 2-(2-butoxyethoxy)ethanol diethylene glycol monobutyl ether

Species: Rat

Test: LD50

Route of exposure: Dermal

Result: ca 4000 mg/kg

#### **Skin corrosion/irritation**

Causes skin irritation.

#### **Serious eye damage/irritation**

Causes serious eye irritation.

#### **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**

No data available.

#### **STOT-repeated exposure**

No data available.

### Aspiration hazard

No data available.

### Long term effects

Neurotoxic effects: This product contains organic solvents, which may cause adverse effects to the nervous system. Symptoms of neurotoxicity include: loss of appetite, headache, dizziness, ringing in ears, tingling sensations of skin, sensitivity to the cold, cramps, difficulty in concentrating, 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.

Irritation 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: potassium hydroxide caustic potash

Species: Fish

Test: LC50

Duration: 24 h

Result: 80 mg/L

Substance: 2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve

Species: Fish

Test: LC50

Duration: 96h

Result: 1474 mg/l

Substance: 2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve

Species: Algae

Test: EC50

Duration: 72h

Result: 1840 mg/l

Substance: 2-butoxyethanol ethylene glycol monobutyl ether butyl cellosolve

Species: Daphnia

Test: EC50

Duration: 48h

Result: 1550 mg/l

Substance: 1-butylpyrrolidin-2-one

Species: Fish

Test: LC50

Duration: 96 h

Result: >100 mg/L

Substance: 1-butylpyrrolidin-2-one

Species: Algae

Test: EC50

Duration: 72 h

Result: 130 mg/L

Substance: 1-butylpyrrolidin-2-one

Species: Daphnia

Test: EC50

Duration: 48 h

Result: >100 mg/L

### 12.2. Persistence and degradability

Substance	Biodegradability	Test	Result
potassium hydroxide caustic p...			
2-butoxyethanol ethylene glyc...	Yes	No data available	No data available
ethanol ethyl alcohol	Yes	CO2 Evolution Test	90%
2-(2-ethoxyethoxy)ethanol	Yes	Closed Bottle Test	85%
2-(2-butoxyethoxy)ethanol	Yes	O2 Consumption	79,4%
die...	Yes	No data available	No data available
1-butylpyrrolidin-2-one		No data available	No data available

### 12.3. Bioaccumulative potential

Substance	Potential bioaccumulation	LogPow	BCF
potassium hydroxide caustic p...			
2-butoxyethanol ethylene glyc...	No	-1,38	No data available
ethanol ethyl alcohol	No	No data available	No data available
2-(2-ethoxyethoxy)ethanol	No	-0,32	0,66
2-(2-butoxyethoxy)ethanol	No	No data available	No data available
die...	No	No data available	No data available
1-butylpyrrolidin-2-one			

#### 12.4. Mobility in soil

potassium hydroxide caustic p...: Log Koc= -1,014422, Calculated from LogPow ().  
ethanol ethyl alcohol: Log Koc= -0,175008, Calculated from LogPow ().

#### 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

Nothing special

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Product is covered by the regulations on hazardous waste.

##### Waste

EWC code

20 01 29\*

detergents containing dangerous substances

##### 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 -

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.(ethanol, glycol)

Class -

PG\* III

EmS F-E, S-E

MP\*\* No

Hazardous constituent -

##### IATA/ICAO

UN-no. 1993

Proper Shipping Name FLAMMABLE LIQUID, N.O.S.(ethanol, glycol)

Class -

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

Not applicable

##### Seveso

Seveso III Part 1: P5c

##### 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 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).

EC regulation 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

H225 - Highly flammable liquid and vapour.

H302 - Harmful if swallowed.

H312 - Harmful in contact with skin.

H314 - Causes severe skin burns and eye damage.

H315 - Causes skin irritation.

H319 - Causes serious eye irritation.

H332 - Harmful if inhaled.

#### The full text of identified uses as mentioned in section 1

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#### Additional label elements

Not applicable

#### Other

In accordance with Article 31 of REACH, a safety data sheet is not required for this product. This safety data sheet has been created on a voluntary basis in order to distribute relevant information as required under Article 33 of REACH.

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)

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**

MK

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

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

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