

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

1.1. Product identifier

Product form : Mixture
Product name : HG toilet renovation kit
UFI : JQPD-XW07-K009-XGE7
Product code : 318 ART
Type of product : Detergent
Product group : Trade product

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

1.2.1. Relevant identified uses

Intended for general public
Main use category : Consumer use
Use of the substance/mixture : Toilet cleaners

1.2.2. Uses advised against

Restrictions on use : All other uses not recommended above

1.3. Details of the supplier of the safety data sheet

Manufacturer

HG International B.V.
P.J. Oudweg 41
NL- 1314 CJ Almere
The Netherlands
T +31 (0)36 54 94 700
safety@hg.eu - www.hg.eu

Importer

HG UKI LTD
Weston Business Centre
Parsonage Road
UK- CM22 6PU Takeley – Essex
United Kingdom
T +44 (0) 1206 822 744
www.hg.eu

1.4. Emergency telephone number

Emergency number : +31 (0)36 54 94 777
Only for medical personnel
Mon-Fri 09:00 AM - 05:00 PM (CEST)

Country	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH	0344 892 0111	Only for healthcare professionals
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER	+44 20 7188 7188	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Skin corrosion/irritation, Category 1 H314
Serious eye damage/eye irritation, Category 1 H318
Hazardous to the aquatic environment – Chronic Hazard, Category 3 H412
Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Causes severe skin burns and eye damage. Causes serious eye damage. Harmful to aquatic life with long lasting effects.

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2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) :

Danger

Contains :

N,N-dimethyltetradecylamine N-oxide; Glycollic acid

Hazard statements (CLP) :

H314 - Causes severe skin burns and eye damage.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP) :

P101 - If medical advice is needed, have product container or label at hand.
P102 - Keep out of reach of children.
P280 - Wear protective gloves, eye protection.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501 - Dispose of contents and container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

Child-resistant fastening :

Applicable

Tactile warning :

Applicable

2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

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

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

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Glycollic acid	CAS-No.: 79-14-1 EC-No.: 201-180-5 REACH-no: 01-2119485579-17	$\geq 10 - < 15$	Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Corr. 1B, H314 Eye Dam. 1, H318
N,N-dimethyltetradecylamine N-oxide	CAS-No.: 3332-27-2 EC-No.: 222-059-3 REACH-no: 01-2119949262-37	$\geq 2 - < 5$	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,Ndimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts	CAS-No.: 147170-44-3 EC-No.: 931-296-8 REACH-no: 01-2119488533-30	$\geq 0.1 - < 1$	Eye Dam. 1, H318 Aquatic Chronic 3, H412

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Name	Product identifier	Conc. (% w/w)	Classification according to Regulation (EC) No. 1272/2008 [CLP]
3-C12-18-(even numbered)-alkylamido-N,N-dimethylpropan-1-amino oxide	CAS-No.: 68155-09-9 EC-No.: 268-938-5 REACH-no: 01-2119978229-22	≥ 0.1 – < 1	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400 Aquatic Chronic 3, H412
formic acid ... % substance with a Community workplace exposure limit (Note B)	CAS-No.: 64-18-6 EC-No.: 200-579-1 EC Index-No.: 607-001-00-0 REACH-no: 01-2119491174-37	≥ 0.01 – < 1	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Inhalation:vapour), H331 Skin Corr. 1A, H314 Eye Dam. 1, H318
formaldehyde ...% substance with a Community workplace exposure limit (Note B)(Note D)	CAS-No.: 50-00-0 EC-No.: 200-001-8 EC Index-No.: 605-001-00-5 REACH-no: 01-2119488953-20	≥ 0.01 – < 0.1	Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 Skin Corr. 1B, H314 Skin Sens. 1, H317 Muta. 2, H341 Carc. 1B, H350

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,Ndimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts	CAS-No.: 147170-44-3 EC-No.: 931-296-8 REACH-no: 01-2119488533-30	(4 ≤C < 10) Eye Irrit. 2, H319 (100 ≤C < 100) Eye Dam. 1, H318
formic acid ... %	CAS-No.: 64-18-6 EC-No.: 200-579-1 EC Index-No.: 607-001-00-0 REACH-no: 01-2119491174-37	(2 ≤C < 10) Skin Irrit. 2, H315 (2 ≤C < 10) Eye Irrit. 2, H319 (10 ≤C < 90) Skin Corr. 1B, H314 (90 ≤C ≤ 100) Skin Corr. 1A, H314
formaldehyde ...%	CAS-No.: 50-00-0 EC-No.: 200-001-8 EC Index-No.: 605-001-00-5 REACH-no: 01-2119488953-20	(0.2 ≤C ≤ 100) Skin Sens. 1, H317 (5 ≤C < 25) Skin Irrit. 2, H315 (5 ≤C < 25) Eye Irrit. 2, H319 (5 ≤C ≤ 100) STOT SE 3, H335 (25 ≤C ≤ 100) Skin Corr. 1B, H314

Note B: Some substances (acids, bases, etc.) are placed on the market in aqueous solutions at various concentrations and, therefore, these solutions require different classification and labelling since the hazards vary at different concentrations. In Part 3 entries with Note B have a general designation of the following type: '... %'. In this case the supplier must state the percentage concentration of the solution on the label. Unless otherwise stated, it is assumed that the percentage concentration is calculated on a weight/weight basis.

Note D: Certain substances which are susceptible to spontaneous polymerisation or decomposition are generally placed on the market in a stabilised form. It is in this form that they are listed in Part 3. However, such substances are sometimes placed on the market in a non-stabilised form. In this case, the supplier must state on the label the name of the substance followed by the words 'non-stabilised'.

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

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician immediately.
First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing.

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First-aid measures after skin contact	: Rinse skin with water/shower. Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting. Call a physician immediately.

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

Symptoms/effects after skin contact	: Burns.
Symptoms/effects after eye contact	: Serious damage to eyes.
Symptoms/effects after ingestion	: Burns.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Dry powder. Foam. Carbon dioxide.
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5.2. Special hazards arising from the substance or mixture

Fire hazard	: Intense heat may cause container to burst.
Hazardous decomposition products in case of fire	: Carbon dioxide. Carbon monoxide. Halogenated compounds. Nitrogen oxides. Metallic oxides.

5.3. Advice for firefighters

Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Do not handle until all safety precautions have been read and understood.
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6.1.1. For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes. Do not touch or walk on the spilled product. Do not breathe mist, vapours.
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6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
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6.2. Environmental precautions

Avoid release to the environment. Avoid the spillage or runoff entering drains, sewers or watercourses. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up	: Take up liquid spill into absorbent material.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection". For disposal of contaminated materials refer to section 13: "Disposal considerations".

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Do not breathe the mist, vapours. Wear personal protective equipment.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store locked up. Store in a well-ventilated place. Keep cool. Always keep container in upright position.
- Incompatible materials : Alkalis.
- Storage temperature : > 0 – < 30 °C
- Heat and ignition sources : Keep away from heat and direct sunlight.
- Special rules on packaging : Keep only in original container. Opened containers must be carefully closed and kept upright to avoid leakage.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

formic acid ... % (64-18-6)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	Formic acid
IOEL TWA	9 mg/m ³
IOEL TWA [ppm]	5 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	Formic acid
WEL TWA (OEL TWA) [1]	9.6 mg/m ³
WEL TWA (OEL TWA) [2]	5 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
formaldehyde ...% (50-00-0)	
EU - Binding Occupational Exposure Limit (BOEL)	
Local name	Formaldehyde
BOEL TWA	0.37 mg/m ³ 0.62 mg/m ³ (Limit value for the health care, funeral and embalming sectors until 11 July 2024)
BOEL TWA [ppm]	0.5 ppm (Limit value for the health care, funeral and embalming sectors until 11 July 2024) 0.3 ppm
BOEL STEL	0.74 mg/m ³
BOEL STEL [ppm]	0.6 ppm
Notes	Dermal sensitisation (The substance can cause sensitisation of the skin)
Regulatory reference	DIRECTIVE (EU) 2019/983 (amending Directive 2004/37/EC)

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formaldehyde ...% (50-00-0)	
United Kingdom - Occupational Exposure Limits	
Local name	Formaldehyde
WEL TWA (OEL TWA) [1]	2.5 mg/m ³
WEL TWA (OEL TWA) [2]	2 ppm
WEL STEL (OEL STEL)	2.5 mg/m ³
WEL STEL (OEL STEL) [ppm]	2 ppm
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure good ventilation of the work station.

8.2.2. Personal protection equipment

Personal protective equipment:

Safety glasses. Gloves. Protective clothing. Wear foot protection.

Personal protective equipment symbol(s):



8.2.2.1. Eye and face protection

Eye protection:

Safety glasses with side shields

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses with side shields	Normal use conditions		EN 166

8.2.2.2. Skin protection

Skin and body protection:

Long sleeved protective clothing. Chemical resistant safety shoes

Skin and body protection	
Type	Standard
Use chemically protective clothing	EN 13034
Chemical resistant safety shoes	EN ISO 20345

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Skin and body protection	
Type	Standard
Long sleeved protective clothing	

Hand protection:

Protective gloves

Hand protection					
Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Butyl rubber	6 (> 480 minutes)	0.5		EN ISO 374
Disposable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	0.35		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid release to the environment.

Other information:

Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Red.
Odour	: slight odour.
Odour threshold	: Not available
Melting point	: 0 °C
Freezing point	: Not available
Boiling point	: 100 °C
Flammability	: Not applicable
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: Not available
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: 2
Viscosity, kinematic	: Not available
Viscosity, dynamic	: 275 mPa.s Room temperature
Solubility	: Soluble in the following materials: cold water and hot water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 1.074
Relative vapour density at 20°C	: Not available
Particle characteristics	: Not applicable

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9.2. Other information

9.2.1. Information with regard to physical hazard classes

Not sustained combustibility : Yes

9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

Alkalis.

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity (oral) : Not classified (Conclusive but not sufficient for classification)
Acute toxicity (dermal) : Not classified (Conclusive but not sufficient for classification)
Acute toxicity (inhalation) : Not classified (Conclusive but not sufficient for classification)

N,N-dimethyltetradecylamine N-oxide (3332-27-2)

LD50 oral rat	1064 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: OECD Guideline 402 (Acute Dermal Toxicity)

3-C12-18-(even numbered)-alkylamido-N,N-dimethylpropan-1-amino oxide (68155-09-9)

LD50 oral rat	500 – 1000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 423 (Acute Oral toxicity - Acute Toxic Class Method), Remarks on results: other:
LD50 dermal rat	> 2174 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Remarks on results: other:

Glycollic acid (79-14-1)

LD50 oral rat	2040 mg/kg bodyweight Animal: rat, Guideline: EPA OPP 81-1 (Acute Oral Toxicity), Remarks on results: other:, 95% CL: 1443 - 2469
LC50 Inhalation - Rat (Dust/Mist)	3.6 mg/l/4h

formic acid ... % (64-18-6)

LD50 oral rat	730 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity), Remarks on results: other:, 95% CL: 618 - 863
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formic acid ... % (64-18-6)	
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	7.85 mg/l/4h Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)
formaldehyde ...% (50-00-0)	
LC50 Inhalation - Rat (Dust/Mist)	> mg/l/4h
Skin corrosion/irritation	: Causes severe skin burns. pH: 2
N,N-dimethyltetradecylamine N-oxide (3332-27-2)	
pH	7 – 9
Glycollic acid (79-14-1)	
pH	1.73
formaldehyde ...% (50-00-0)	
pH	2.8 – 4
Serious eye damage/irritation	: Causes serious eye damage. pH: 2
N,N-dimethyltetradecylamine N-oxide (3332-27-2)	
pH	7 – 9
Glycollic acid (79-14-1)	
pH	1.73
formaldehyde ...% (50-00-0)	
pH	2.8 – 4
Respiratory or skin sensitisation	: Not classified (Conclusive but not sufficient for classification)
Germ cell mutagenicity	: Not classified (Conclusive but not sufficient for classification)
Carcinogenicity	: Not classified (Conclusive but not sufficient for classification)
formaldehyde ...% (50-00-0)	
IARC group	1 - Carcinogenic to humans
formic acid ... % (64-18-6)	
NOAEL (chronic, oral, animal/male, 2 years)	400 mg/kg bodyweight Animal: mouse, Animal sex: male, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies), Remarks on results: other:
Reproductive toxicity	: Not classified (Conclusive but not sufficient for classification)
STOT-single exposure	: Not classified (Conclusive but not sufficient for classification)
STOT-repeated exposure	: Not classified (Conclusive but not sufficient for classification)
N,N-dimethyltetradecylamine N-oxide (3332-27-2)	
NOAEL (oral, rat, 90 days)	40 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 422 (Combined Repeated Dose Toxicity Study with the Reproduction / Developmental Toxicity Screening Test)
3-C12-18-(even numbered)-alkylamido-N,N-dimethylpropan-1-amino oxide (68155-09-9)	
NOAEL (oral, rat, 90 days)	50 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents)
Glycollic acid (79-14-1)	
LOAEL (oral, rat, 90 days)	300 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity), Guideline: other:, Guideline: other:

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Glycollic acid (79-14-1)	
NOAEL (oral, rat, 90 days)	150 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity), Guideline: other., Guideline: other:
formic acid ... % (64-18-6)	
LOAEL (oral, rat, 90 days)	2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEL (oral, rat, 90 days)	400 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 453 (Combined Chronic Toxicity / Carcinogenicity Studies)
NOAEC (inhalation, rat, dust/mist/fume, 90 days)	0.244 mg/l air Animal: rat, Guideline: OECD Guideline 413 (Subchronic Inhalation Toxicity: 90-Day Study)

Aspiration hazard : Not classified (Conclusive but not sufficient for classification)

Glycollic acid (79-14-1)	
Viscosity, kinematic	6149 mm ² /s Temp.: 'other.' Parameter: 'kinematic viscosity (in mm ² /s)' Remarks on result: 'other.'

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

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

11.2.2. Other information

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute) : Not classified (Conclusive but not sufficient for classification)
Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

N,N-dimethyltetradecylamine N-oxide (3332-27-2)	
LC50 - Fish [1]	2.67 mg/l
EC50 - Crustacea [1]	3.1 mg/l
ErC50 algae	0.19 mg/l
NOEC (chronic)	0.7 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	0.42 mg/l Test organisms (species): Pimephales promelas Duration: '302 d'

3-C12-18-(even numbered)-alkylamido-N,N-dimethylpropan-1-amino oxide (68155-09-9)	
LC50 - Fish [1]	1.9 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
LC50 - Fish [2]	0.68 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	19.9 mg/l Test organisms (species): Daphnia magna

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3-C12-18-(even numbered)-alkylamido-N,N-dimethylpropan-1-amino oxide (68155-09-9)	
EC50 72h - Algae [1]	1.97 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 72h - Algae [2]	0.705 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
ErC50 algae	0.71 mg/l
NOEC (chronic)	0.7 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic algae	0.303 mg/l
Glycollic acid (79-14-1)	
LC50 - Fish [1]	164 mg/l
EC50 - Crustacea [1]	141 mg/l Test organisms (species): Daphnia magna
formic acid ... % (64-18-6)	
LC50 - Fish [1]	68 mg/l
EC50 - Crustacea [1]	365 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	1240 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
LOEC (chronic)	> 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC (chronic)	≥ 100 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
formaldehyde ...% (50-00-0)	
LC50 - Fish [1]	6.7 mg/l Test organisms (species): Morone saxatilis
EC50 - Crustacea [1]	5.8 mg/l Test organisms (species): Daphnia pulex
NOEC (chronic)	≥ 6.4 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic fish	≥ 48 mg/l Test organisms (species): Oryzias latipes Duration: '28 d'
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,Ndimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3)	
LC50 - Fish [1]	1.11 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	6.5 mg/l Test organisms (species): Daphnia magna
EC50 - Other aquatic organisms [2]	1.5 mg/l
ErC50 algae	2.4 mg/l
NOEC chronic fish	0.135 mg/l
12.2. Persistence and degradability	
HG toilet renovation kit	
Persistence and degradability	Readily biodegradable.
N,N-dimethyltetradecylamine N-oxide (3332-27-2)	
Biodegradation	80 % (OECD 310 method)
3-C12-18-(even numbered)-alkylamido-N,N-dimethylpropan-1-amino oxide (68155-09-9)	
Biodegradation	68 % (OECD 301B method)
1-Propanaminium, 3-amino-N-(carboxymethyl)-N,Ndimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3)	
Biodegradation	91.6 % (OECD 301B method)

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12.3. Bioaccumulative potential

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Bioaccumulative potential	No bioaccumulation expected.
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N,N-dimethyltetradecylamine N-oxide (3332-27-2)

Partition coefficient n-octanol/water (Log Pow)	2.7
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Glycollic acid (79-14-1)

Partition coefficient n-octanol/water (Log Pow)	-1.1
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formic acid ... % (64-18-6)

Partition coefficient n-octanol/water (Log Pow)	-2.1
---	------

formaldehyde ...% (50-00-0)

Partition coefficient n-octanol/water (Log Pow)	0.779
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1-Propanaminium, 3-amino-N-(carboxymethyl)-N,Ndimethyl-, N-C8-18 (even numbered) acyl derivs., hydroxides, inner salts (147170-44-3)

Bioconcentration factor (BCF REACH)	71
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Partition coefficient n-octanol/water (Log Kow)	4.2
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12.4. Mobility in soil

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Ecology - soil	Expected to be highly mobile in soil.
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N,N-dimethyltetradecylamine N-oxide (3332-27-2)

Mobility in soil	3.99 Source: Quantitative Structure Activity Relation
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12.5. Results of PBT and vPvB assessment

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

12.6. Endocrine disrupting properties

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

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Dispose of in accordance with relevant local regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Empty containers retain product residue and can be hazardous. Do not dispose of the packaging without first carrying out the necessary cleaning. Empty containers should be taken for recycling, recovery or waste in accordance with local regulation.

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Ecology - waste materials	: Recycling is preferred to disposal or incineration.
European List of Waste (LoW) code	: 20 01 29* - detergents containing dangerous substances 20 01 39 - plastics
HP Code	: HP8 - "Corrosive:" waste which on application can cause skin corrosion. HP14 - "Ecotoxic:" waste which presents or may present immediate or delayed risks for one or more sectors of the environment

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 3265	UN 3265	UN 3265	UN 3265	UN 3265
14.2. UN proper shipping name				
CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid)	Corrosive liquid, acidic, organic, n.o.s. (Glycollic acid)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid)	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid)
Transport document description				
UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid), 8, III, (E)	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid), 8, III	UN 3265 Corrosive liquid, acidic, organic, n.o.s. (Glycollic acid), 8, III	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid), 8, III	UN 3265 CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S. (Glycollic acid), 8, III
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
III	III	III	III	III
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	: C3
Special provisions (ADR)	: 274
Limited quantities (ADR)	: 5I
Excepted quantities (ADR)	: E1
Packing instructions (ADR)	: P001, IBC03, LP01, R001
Mixed packing provisions (ADR)	: MP19
Portable tank and bulk container instructions (ADR)	: T7
Portable tank and bulk container special provisions (ADR)	: TP1, TP28
Tank code (ADR)	: L4BN
Vehicle for tank carriage	: AT
Transport category (ADR)	: 3
Special provisions for carriage - Packages (ADR)	: V12
Hazard identification number (Kemler No.)	: 80

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Orange plates : 

Tunnel restriction code (ADR) : E
EAC code : 2X

Transport by sea

Special provisions (IMDG) : 223, 274
Limited quantities (IMDG) : 5 L
Excepted quantities (IMDG) : E1
Packing instructions (IMDG) : P001, LP01
IBC packing instructions (IMDG) : IBC03
Tank instructions (IMDG) : T7
Tank special provisions (IMDG) : TP1, TP28
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Stowage category (IMDG) : A
Stowage and handling (IMDG) : SW2
Segregation (IMDG) : SGG1, SG36, SG49
Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.

Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y841
PCA limited quantity max net quantity (IATA) : 1L
PCA packing instructions (IATA) : 852
PCA max net quantity (IATA) : 5L
CAO packing instructions (IATA) : 856
CAO max net quantity (IATA) : 60L
Special provisions (IATA) : A3, A803
ERG code (IATA) : 8L

Inland waterway transport

Classification code (ADN) : C3
Special provisions (ADN) : 274
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1
Carriage permitted (ADN) : T
Equipment required (ADN) : PP, EP
Number of blue cones/lights (ADN) : 0

Rail transport

Classification code (RID) : C3
Special provisions (RID) : 274
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Packing instructions (RID) : P001, IBC03, LP01, R001
Mixed packing provisions (RID) : MP19
Portable tank and bulk container instructions (RID) : T7
Portable tank and bulk container special provisions (RID) : TP1, TP28
Tank codes for RID tanks (RID) : L4BN
Transport category (RID) : 3
Special provisions for carriage – Packages (RID) : W12
Colis express (express parcels) (RID) : CE8
Hazard identification number (RID) : 80

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

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

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Detergent Regulation (648/2004)

Labelling of contents	
Component	%
amphoteric surfactants	<5%
FORMALDEHYDE	

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
BOD	Biochemical oxygen demand (BOD)
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level

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Abbreviations and acronyms:	
EC-No.	European Community number
EC50	Median effective concentration
EN	European Standard
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
ThOD	Theoretical oxygen demand (ThOD)
TLM	Median Tolerance Limit
VOC	Volatile Organic Compounds
CAS-No.	Chemical Abstract Service number
N.O.S.	Not Otherwise Specified
vPvB	Very Persistent and Very Bioaccumulative
ED	Endocrine disrupting properties

Training advice

: Normal use of this product shall imply use in accordance with the instructions on the packaging. Ensure personnel is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency.

Other information

: **DISCLAIMER OF LIABILITY** The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Full text of H- and EUH-statements:	
Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3

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Full text of H- and EUH-statements:	
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 1B	Carcinogenicity, Category 1B
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H341	Suspected of causing genetic defects.
H350	May cause cancer.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Muta. 2	Germ cell mutagenicity, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.