

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

1.1. Product identifier

Product form : Mixture
Trade name : Keno™san
Product code : 8
Type of product : Detergent
Product group : Cleaning product

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

1.2.1. Relevant identified uses

Main use category : Professional use
Use of the substance/mixture : See product bulletin for detailed information

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

CID LINES N.V.
Waterpoortstraat, 2
BE- B-8900 Ieper
Belgique
T + 32 57 21 78 77 - F +32 57 21 78 79
sds@cidlines.com - <http://www.cidlines.com>

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number	Comment
Australia	Poisons Information Centre		13 11 26	
New Zealand	The National Poisons Centre	University of Otago, 2nd Floor, Adams Building, 18 Frederick Street, 9016 Dunedin	0800 764 766 0800 POISON	
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	
USA	American Association of Poison Control Centers		1-800-222-1222	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Acute toxicity (inhal.), Category 4 H332
Skin corrosion/irritation, Category 1, Sub-Category 1A 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

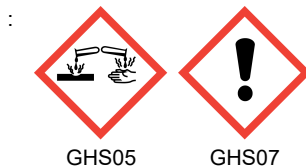
Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



GHS05

GHS07

Signal word (CLP)

: Danger

Contains

: sodium hydroxide; caustic soda; Sodium N-lauroylsarcosinate

Hazard statements (CLP)

: H314 - Causes severe skin burns and eye damage.

H332 - Harmful if inhaled.

H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P260 - Do not breathe dusts or mists.

P273 - Avoid release to the environment.

P280 - Wear protective gloves/protective clothing/eye protection/face protection/hearing 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 .

P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 - Immediately call a POISON CENTER/doctor.

P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards

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 is not 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	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
2-(2-butoxyethoxy)ethanol	CAS-No.: 112-34-5 EC-No.: 203-961-6 EC Index-No.: 603-096-00-8 REACH-no: 01-2119475104-44	5 – 15	Eye Irrit. 2, H319
sodium hydroxide; caustic soda	CAS-No.: 1310-73-2 EC-No.: 215-185-5 EC Index-No.: 011-002-00-6 REACH-no: 01-2119457892-27	5 – 15	Met. Corr. 1, H290 Skin Corr. 1A, H314 Eye Dam. 1, H318

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Amines, C12-14-alkyldimethyl, N-oxides	CAS-No.: 68424-94-2 EC-No.: 931-292-6 REACH-no: 01-2119490061-47	1 – 5	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 2, H411
Sodium N-lauroylsarcosinate	CAS-No.: 137-16-6 EC-No.: 205-281-5	1 – 5	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT RE 2, H373

Specific concentration limits:		
Name	Product identifier	Specific concentration limits
sodium hydroxide; caustic soda	CAS-No.: 1310-73-2 EC-No.: 215-185-5 EC Index-No.: 011-002-00-6 REACH-no: 01-2119457892-27	(0.5 ≤ C < 2) Skin Irrit. 2, H315 (0.5 ≤ C < 2) Eye Irrit. 2, H319 (2 ≤ C < 5) Skin Corr. 1B, H314 (5 ≤ C < 100) Skin Corr. 1A, H314
Sodium N-lauroylsarcosinate	CAS-No.: 137-16-6 EC-No.: 205-281-5	(0 < C ≤ 34.5) Acute Tox. 4 (Inhalation), H332 (1 ≤ C ≤ 30) Eye Irrit. 2, H319 (30 < C < 100) Skin Irrit. 2, H315 (30 < C < 100) Eye Dam. 1, H318 (34.5 < C < 100) Acute Tox. 2 (Inhalation), H330

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 after inhalation	: Remove person to fresh air and keep comfortable for breathing. Seek medical attention immediately.
First-aid measures after skin contact	: Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Seek medical advice (show the label where possible).
First-aid measures after eye contact	: Rinse immediately with plenty of water. Seek medical attention immediately.
First-aid measures after ingestion	: Rinse mouth. Do not induce vomiting because of corrosive effects. Take to hospital.

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

Symptoms/effects after inhalation	: Inhalation of vapour can cause breathing difficulties. Cough. Sore throat.
Symptoms/effects after skin contact	: Redness, pain. Causes severe skin burns and eye damage.
Symptoms/effects after eye contact	: Redness, pain. Blurred vision. Tears. Serious damage to eyes.
Symptoms/effects after ingestion	: Burning sensation. Cough. Cramps. May cause burns or irritation of the linings of the mouth, throat, and gastrointestinal tract. Swallowing a small quantity of this material will result in serious health hazard.

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

In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

Fire hazard	: Not combustible.
Explosion hazard	: Not expected to be a fire/explosion hazard under normal conditions of use.
Reactivity in case of fire	: At high temperature may liberate dangerous gases.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire	: Wear fire/flammable resistant/retardant clothing. Eliminate all ignition sources if safe to do so.
Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Exercise caution when fighting any chemical fire. Do not enter fire area without proper protective equipment, including respiratory protection. Wear fire/flammable resistant/retardant clothing. Heat resistant gloves.
Other information	: On exposure to high temperature, may decompose, releasing toxic gases.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Spill should be handled by trained cleaning personnel properly equipped with respiratory and eye protection. Stop leak if safe to do so. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
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6.1.1. For non-emergency personnel

Protective equipment	: Avoid all unnecessary exposure. Wear suitable protective clothing. Ensure adequate ventilation. Do not breathe vapours.
Emergency procedures	: Do not touch or walk on the spilled product. Evacuate area. Do not breathe vapours. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".
Emergency procedures	: Do not touch spilled material. Evacuate unnecessary personnel. Stop leak if safe to do so. Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Stop leak without risks if possible. Collect spillage. Use suitable disposal containers.
Methods for cleaning up	: Clean up any spills as soon as possible, using an absorbent material to collect it.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling	: When handling product, avoid contact with skin and eyes. Wear personal protective equipment. Do not breathe vapour/aerosol. Provide good ventilation in process area to prevent formation of vapour.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep only in the original container in a cool well ventilated place. Do not store in corrodable metal. Keep container closed when not in use. Protect from freezing.
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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**

2-(2-butoxyethoxy)ethanol (112-34-5)	
EU - Indicative Occupational Exposure Limit (IOEL)	
Local name	2-(2-Butoxyethoxy)ethanol
IOEL TWA	67.5 mg/m ³
IOEL TWA [ppm]	10 ppm
IOEL STEL	101.2 mg/m ³
IOEL STEL [ppm]	15 ppm
Regulatory reference	COMMISSION DIRECTIVE 2006/15/EC
United Kingdom - Occupational Exposure Limits	
Local name	2-(2-Butoxyethoxy)ethanol
WEL TWA (OEL TWA) [1]	67.5 mg/m ³
WEL TWA (OEL TWA) [2]	10 ppm
WEL STEL (OEL STEL)	101.2 mg/m ³
WEL STEL (OEL STEL) [ppm]	15 ppm
Regulatory reference	EH40/2005 (Third edition, 2018). 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

2-(2-butoxyethoxy)ethanol (112-34-5)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	101.2 mg/m ³
Long-term - systemic effects, dermal	83 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	67.5 mg/m ³
Long-term - local effects, inhalation	67.5 mg/m ³
DNEL/DMEL (General population)	
Acute - local effects, inhalation	60.7 mg/m ³
Long-term - systemic effects, oral	5 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	40.5 mg/m ³
Long-term - systemic effects, dermal	50 mg/kg bodyweight/day
Long-term - local effects, inhalation	40.5 mg/m ³
PNEC (Water)	
PNEC aqua (freshwater)	1.1 mg/l

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according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

2-(2-butoxyethoxy)ethanol (112-34-5)	
PNEC aqua (marine water)	0.11 mg/l
PNEC aqua (intermittent, freshwater)	11 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	4.4 mg/kg dwt
PNEC sediment (marine water)	0.44 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.32 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	56 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	200 mg/l
sodium hydroxide; caustic soda (1310-73-2)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	1 mg/m³
DNEL/DMEL (General population)	
Long-term - local effects, inhalation	1 mg/m³
Amines, C12-14-alkyldimethyl, N-oxides (68424-94-2)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	11 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	6.2 mg/m³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	0.44 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	1.53 mg/m³
Long-term - systemic effects, dermal	5.5 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.0335 mg/l
PNEC aqua (marine water)	0.00335 mg/l
PNEC aqua (intermittent, freshwater)	0.0335 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	5.24 mg/kg dwt
PNEC sediment (marine water)	0.524 mg/kg dwt
PNEC (Soil)	
PNEC soil	1.02 mg/kg dwt
PNEC (Oral)	
PNEC oral (secondary poisoning)	11.1 mg/kg food
PNEC (STP)	
PNEC sewage treatment plant	24 mg/l

Sodium N-lauroylsarcosinate (137-16-6)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	20 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	70.53 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, oral	10 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	17.39 mg/m ³
Long-term - systemic effects, dermal	10 mg/kg bodyweight/day
PNEC (Water)	
PNEC aqua (freshwater)	0.0297 mg/l
PNEC aqua (marine water)	0.003 mg/l
PNEC aqua (intermittent, freshwater)	0.297 mg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	0.034 mg/kg dwt
PNEC sediment (marine water)	0.0034 mg/kg dwt
PNEC (Soil)	
PNEC soil	0.012 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	10 mg/l

8.1.5. Control banding

No additional information available

8.2. Exposure controls**8.2.1. Appropriate engineering controls**

No additional information available

8.2.2. Personal protective equipment

Personal protective equipment symbol(s):

**8.2.2.1. Eye and face protection****Eye protection:**

Wear security glasses which protect from splashes. Safety glasses with side shields

Eye protection			
Type	Field of application	Characteristics	Standard
Safety glasses	Droplet	clear, Plastic	EN 166

8.2.2.2. Skin protection**Skin and body protection:**

Wear suitable protective clothing

Skin and body protection

Type	Standard
protective clothing	EN14605:2005+A1:2009

Hand protection:

Wear suitable gloves resistant to chemical penetration

Hand protection

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Gloves	Polyvinylchloride (PVC)	6 (> 480 minutes)	0.5	2 (< 1.5)	EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:

Appropriate dust or mist respirator should be used if airborne particles are generated when handling this material

Respiratory protection

Device	Filter type	Condition	Standard
Half-mask	Filter type A/P2	Long term exposure, Vapour protection	EN 132, EN 140

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Other information:

When using do not eat, drink or smoke. Provide local exhaust or general room ventilation.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Yellow. brown.
Odour	: Not available
Odour threshold	: The product has not been tested
Melting point	: The product has not been tested
Freezing point	: The product has not been tested
Softening point	: The product has not been tested
Boiling point	: The product has not been tested
Flammability	: Not applicable Not flammable
Explosive properties	: Product is not explosive.
Oxidising properties	: Non oxidizing material according to EC criteria.
Explosive limits	: The product is not flammable
Lower explosion limit	: The product has not been tested
Upper explosion limit	: The product has not been tested
Flash point	: > 60 °C
Auto-ignition temperature	: The product has not been tested
Decomposition temperature	: The product has not been tested
SADT	: The product has not been tested
pH	: ≈ 12.5 (1%)
Viscosity, kinematic	: The product has not been tested
Viscosity, dynamic	: The product has not been tested

Solubility	: Water: 100 % Ethanol: The product has not been tested Ether: The product has not been tested Acetone: The product has not been tested Organic solvent: The product has not been tested
Partition coefficient n-octanol/water (Log Kow)	: The product has not been tested
Partition coefficient n-octanol/water (Log Pow)	: The product has not been tested
Vapour pressure	: The product has not been tested
Vapour pressure at 50°C	: The product has not been tested
Critical pressure	: The product has not been tested
Saturation concentration	: The product has not been tested
Density	: ≈ 1.075 kg/l
Relative density	: The product has not been tested
Relative vapour density at 20°C	: The product has not been tested
Relative density of saturated gas/air mixture	: The product has not been tested
Particle size	: The product has not been tested
Particle size distribution	: The product has not been tested
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: The product has not been tested
Particle agglomeration state	: The product has not been tested
Particle specific surface area	: The product has not been tested
Particle dustiness	: The product has not been tested

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Critical temperature : The product has not been tested

9.2.2. Other safety characteristics

Relative evaporation rate (butylacetate=1) : The product has not been tested
Relative evaporation rate (ether=1) : The product has not been tested
Relative evaporation rate (water=1) : The product has not been tested
Relative evaporation rate (ethanol=1) : The product has not been tested
VOC content : 80 g/l

SECTION 10: Stability and reactivity

10.1. Reactivity

None under normal conditions.

10.2. Chemical stability

Stable in use and storage conditions as recommended in item 7.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

According to process conditions, hazardous decomposition products may be generated.

SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Harmful if inhaled.

Keno™ san	
ATE CLP (gases)	4500 ppmv/4h
ATE CLP (vapours)	11 mg/l/4h
ATE CLP (dust,mist)	1.5 mg/l/4h

2-(2-butoxyethoxy)ethanol (112-34-5)

LD50 dermal rabbit	2764 mg/kg bodyweight Animal: rabbit, Animal sex: male, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), 95% CL: 2090 - 3645
ATE CLP (dermal)	2764 mg/kg bodyweight

Amines, C12-14-alkyldimethyl, N-oxides (68424-94-2)

LD50 oral	1064 mg/kg
LD50 dermal rat	> 2000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 402 (Acute Dermal Toxicity), Guideline: EU Method B.3 (Acute Toxicity (Dermal))
ATE CLP (oral)	500 mg/kg bodyweight

Sodium N-lauroylsarcosinate (137-16-6)

LD50 oral rat	> 5000 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
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Skin corrosion/irritation	: Causes severe skin burns. pH: ≈ 12.5 (1%)
Serious eye damage/irritation	: Causes serious eye damage. pH: ≈ 12.5 (1%)
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified

Amines, C12-14-alkyldimethyl, N-oxides (68424-94-2)

NOAEL (animal/male, F1)	37 – 128 mg/kg bodyweight Animal: rat, Animal sex: male, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study), Guideline: other:
NOAEL (animal/female, F1)	47 – 119 mg/kg bodyweight Animal: rat, Animal sex: female, Guideline: OECD Guideline 416 (Two-Generation Reproduction Toxicity Study), Guideline: other:

STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified

2-(2-butoxyethoxy)ethanol (112-34-5)

NOAEL (oral, rat, 90 days)	250 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EU Method B.26 (Sub-Chronic Oral Toxicity Test: Repeated Dose 90-Day Oral Toxicity Study in Rodents), Guideline: EPA OPPTS 870.3100 (90-Day Oral Toxicity in Rodents)
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Amines, C12-14-alkyldimethyl, N-oxides (68424-94-2)

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), Guideline: other:
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

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Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Sodium N-lauroylsarcosinate (137-16-6)

NOAEL (oral, rat, 90 days)	30 mg/kg bodyweight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Keno™ san

Viscosity, kinematic	The product has not been tested
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11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Harmful to aquatic life with long lasting effects.

2-(2-butoxyethoxy)ethanol (112-34-5)

LC50 - Fish [1]	1300 mg/l Test organisms (species): Lepomis macrochirus
EC50 - Crustacea [1]	> 100 mg/l Test organisms (species): Daphnia magna
EC50 96h - Algae [1]	> 100 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

sodium hydroxide; caustic soda (1310-73-2)

EC50 - Crustacea [1]	40.4 mg/l Test organisms (species): Ceriodaphnia sp.
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Amines, C12-14-alkyldimethyl, N-oxides (68424-94-2)

EC50 - Crustacea [1]	10.4 mg/l Test organisms (species): Daphnia magna
EC50 - Crustacea [2]	3.1 mg/l Test organisms (species): Daphnia magna
NOEC (chronic)	0.7 mg/l Test organisms (species): Daphnia magna Duration: '21 d'

Sodium N-lauroylsarcosinate (137-16-6)

LC50 - Fish [1]	107 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	29.7 mg/l Test organisms (species): Daphnia magna
EC50 72h - Algae [1]	79 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	39 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

12.2. Persistence and degradability

Keno™ san

Persistence and degradability	The surfactant contained in this preparation complies with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents.
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12.3. Bioaccumulative potential**Keno™san**

Partition coefficient n-octanol/water (Log Pow)	The product has not been tested
Partition coefficient n-octanol/water (Log Kow)	The product has not been tested

2-(2-butoxyethoxy)ethanol (112-34-5)

Partition coefficient n-octanol/water (Log Kow)	1
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Amines, C12-14-alkyldimethyl, N-oxides (68424-94-2)

Partition coefficient n-octanol/water (Log Kow)	2.7
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12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

No additional information available

SECTION 13: Disposal considerations**13.1. Waste treatment methods**

Regional legislation (waste)	: Dispose in a safe manner in accordance with local/national regulations. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.
Waste treatment methods	: Dispose of this material and its container at hazardous or special waste collection point. Hazardous waste due to toxicity. Avoid release to the environment. Dispose in a safe manner in accordance with local/national regulations.
Sewage disposal recommendations	: Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of in accordance with the European Directives on waste and hazardous waste. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Do not contaminate water with the product or its container (Do not clean application equipment near surface water/Avoid contamination via drains from farmyards and roads). When totally empty, containers are recyclable like any other packing. Avoid release to the environment.
Additional information	: Waste disposal according to Directive 2008/98/EC, covering waste and dangerous waste. The material can be re-used or recycled according to the regulations of Guideline EG 94/62. Act of 13 June 2013 on the management of packaging and packaging waste (J. o L. 2013, item 888 as amended; consolidated text J. o L. 2020, item 1114).
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: 07 06 01* - aqueous washing liquids and mother liquors

SECTION 14: Transport information

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

14.1. UN number or ID number

UN-No. (ADR)	: UN 1824
UN-No. (IMDG)	: UN 1824

UN-No. (IATA)	: UN 1824
UN-No. (ADN)	: UN 1824
UN-No. (RID)	: UN 1824

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: SODIUM HYDROXIDE SOLUTION
Proper Shipping Name (IMDG)	: SODIUM HYDROXIDE SOLUTION
Proper Shipping Name (IATA)	: Sodium hydroxide solution
Proper Shipping Name (ADN)	: SODIUM HYDROXIDE SOLUTION
Proper Shipping Name (RID)	: SODIUM HYDROXIDE SOLUTION
Transport document description (ADR)	: UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III, (E)
Transport document description (IMDG)	: UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III
Transport document description (IATA)	: UN 1824 Sodium hydroxide solution, 8, III
Transport document description (ADN)	: UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III
Transport document description (RID)	: UN 1824 SODIUM HYDROXIDE SOLUTION, 8, III

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 8
Danger labels (ADR)	: 8



IMDG

Transport hazard class(es) (IMDG)	: 8
Danger labels (IMDG)	: 8



IATA

Transport hazard class(es) (IATA)	: 8
Danger labels (IATA)	: 8



ADN

Transport hazard class(es) (ADN)	: 8
Danger labels (ADN)	: 8



RID

Transport hazard class(es) (RID)	: 8
Danger labels (RID)	: 8



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14.4. Packing group

Packing group (ADR)	: III
Packing group (IMDG)	: III
Packing group (IATA)	: III
Packing group (ADN)	: III
Packing group (RID)	: III

14.5. Environmental hazards

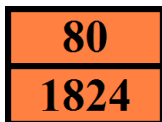
Dangerous for the environment	: No
Marine pollutant	: No
Other information	: Clean up even minor leaks or spills, if possible, without unnecessary risk

14.6. Special precautions for user

Special transport precautions	: Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency, No naked flames, sparks, and do not smoke, Keep public away from danger area, NOTIFY POLICE AND FIRE BRIGADE IMMEDIATELY
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Overland transport

Classification code (ADR)	: C5
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)	: T4
Portable tank and bulk container special provisions (ADR)	: TP1
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
Orange plates	:



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

Transport by sea

Special provisions (IMDG)	: 223
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP1
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-B
Stowage category (IMDG)	: A
Segregation (IMDG)	: SGG18, SG35
Properties and observations (IMDG)	: Colourless liquid. Colourless liquid. Reacts with ammonium salts, evolving ammonia gas. Causes burns to skin, eyes and mucous membranes. Reacts violently with acids.
MFAG-No	: 153

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

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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)	: C5
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)	: C5
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)	: T4
Portable tank and bulk container special provisions (RID)	: TP1
Tank codes for RID tanks (RID)	: L4BN
Special provisions for RID tanks (RID)	: TU42
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

SECTION 15: Regulatory information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****15.1.1. EU-Regulations**

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

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

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

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

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

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

VOC content : 80 g/l

Other information, restriction and prohibition regulations : Ensure all national/local regulations are observed. PIC Regulation (649/2012) - Export and Import of hazardous chemicals. Listed on the PIC list (Regulation EU 649/2012): {0}.

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information**Abbreviations and acronyms:**

CAS-No.	Chemical Abstract Service number
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

Abbreviations and acronyms:	
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)
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
COD	Chemical oxygen demand (COD)
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC-No.	European Community number
EN	European Standard
EC50	Median effective concentration
ED	Endocrine disrupting properties
IARC	International Agency for Research on Cancer
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
IOELV	Indicative Occupational Exposure Limit Value
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
N.O.S.	Not Otherwise Specified
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
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
TLM	Median Tolerance Limit
TRGS	Technical Rules for Hazardous Substances
ThOD	Theoretical oxygen demand (ThOD)
VOC	Volatile Organic Compounds
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative

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Data sources

: 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. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008. The skin and eye classification of this product was derived using bridging principles (such as dilution, interpolation within one hazard category or substantially similar mixtures; with or without expert judgement) following Article 9(3) and Article 9(4) of Regulation (EC) No 1272/2008.

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. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), 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
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Met. Corr. 1	Corrosive to metals, Category 1
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
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2

SDSCLP3

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.