

Safety Data Sheet dated 6/9/2016, version 3

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

1.1. Product identifier

Mixture identification

Trade name: GRES

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

Recommended use:

Detergent for hard surfaces.

Professional use (SU22) - Products for washing and cleaning (PC35)

Uses advised against:

Different uses than recommended. Do not use in combination with other products.

1.3. Details of the supplier of the safety data sheet

Manufacturer:

SUTTER INDUSTRIES s.p.a. - Società con Unico Socio

15060 Borghetto Borbera (AL) Italia

Tel. +39 0143 631.1

Competent person responsible for the safety data sheet:

regulatory.affairs@sutter.it

1.4. Emergency telephone number


+39 0143 631.1 mon-fri 9.00/17.00


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**SECTION 2: Hazards identification**

2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP)

 Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.

 Danger, Eye Dam. 1, Causes serious eye damage.

Adverse physicochemical, human health and environmental effects:

No other hazards

2.2. Label elements

Hazard pictograms:



Danger

Hazard statements:

H314 Causes severe skin burns and eye damage.

Precautionary statements:

P280 Wear 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/ shower.

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.

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P310 Immediately call a POISON CENTER or doctor/physician.

Special Provisions:

EUH210 Only for professional use. Safety data sheet available on request.

Contents

2-AMINOETHANOL

POTASSIUM DODECYLBENZENE SULFONATE

2-PROPYLHEPTANOL ETHOXYLATED PROPOXYLATED

Product contents:

soap, anionic surfactants, non-ionic surfactants < 5 %

The product also contains: Perfumes

Allergens:

Preservatives:

Special provisions according to Annex XVII of REACH and subsequent amendments:

None

2.3. Other hazards

vPvB Substances: None - PBT Substances: None

Other Hazards:

No other hazards

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### SECTION 3: Composition/information on ingredients

3.1. Substances


Not Applicable, the product is a mixture.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

>= 5% - < 7% 2-(2-BUTOXYETHOXY)ETHANOL

REACH No.: 01-2119475104-44, Index number: 603-096-00-8, CAS: 112-34-5, EC: 203-961-6

 3.3/2 Eye Irrit. 2 H319

>= 3% - < 5% 2-AMINOETHANOL

REACH No.: 01-2119486455-28, Index number: 603-030-00-8, CAS: 141-43-5, EC: 205-483-3

 3.2/1B Skin Corr. 1B H314

 3.1/4/Oral Acute Tox. 4 H302

 3.1/4/Dermal Acute Tox. 4 H312


 3.1/4/Inhal Acute Tox. 4 H332


4.1/C3 Aquatic Chronic 3 H412

 3.8/3 STOT SE 3 H335

>= 3% - < 5% POTASSIUM DODECYLBENZENE SULFONATE

CAS: 27177-77-1, EC: 248-296-2

 3.1/4/Oral Acute Tox. 4 H302

 3.2/2 Skin Irrit. 2 H315

 3.3/1 Eye Dam. 1 H318


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>= 1% - < 3% POTASSIUM COCOATE


CAS: 61789-30-8, EC: 263-049-9


 3.3/2 Eye Irrit. 2 H319

 3.2/2 Skin Irrit. 2 H315

>= 1% - < 3% 2-PROPYLHEPTANOL ETHOXYLATED PROPOXYLATED

CAS: 166736-08-9

 3.1/4/Oral Acute Tox. 4 H302


 3.3/1 Eye Dam. 1 H318

>= 0.5% - < 1% POTASSIUM HYDROXIDE

REACH No.: 01-2119487136-33, Index number: 019-002-00-8, CAS: 1310-58-3, EC: 215-181-3

 2.16/1 Met. Corr. 1 H290

 3.2/1A Skin Corr. 1A H314

 3.1/4/Oral Acute Tox. 4 H302

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#### SECTION 4: First aid measures

##### 4.1. Description of first aid measures

In case of skin contact:

Immediately take off all contaminated clothing.

OBTAIN IMMEDIATE MEDICAL ATTENTION.

Remove contaminated clothing immediately and dispose off safely.

After contact with skin, wash immediately with soap and plenty of water.

In case of eyes contact:

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

Protect uninjured eye.

In case of Ingestion:

Do NOT induce vomiting.

In case of Inhalation:

Remove casualty to fresh air and keep warm and at rest.

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

Acute effects:

Severe skin and eye irritation for contact.

Irritation interior system if swallowed.

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

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Treatment:

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

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#### SECTION 5: Firefighting measures

##### 5.1. Extinguishing media

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Suitable extinguishing media:

Water.

Carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

None in particular.

#### 5.2. Special hazards arising from the substance or mixture

The product does not contain ingredients classified as explosive according to Regulation 1272/2008/EC (CLP).

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

#### 5.3. Advice for firefighters

Use suitable breathing apparatus .

Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

Move undamaged containers from immediate hazard area if it can be done safely.

The mixture does not contain ingredients classified as explosive according to EC Regulation 1272/2008 (CLP).

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## SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Remove all sources of ignition.

Remove persons to safety.

See protective measures under point 7 and 8.

#### 6.2. Environmental precautions

Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

Retain contaminated washing water and dispose it.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

Suitable material for taking up: absorbing material, organic, sand

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

Wash with plenty of water. To converge the product in containment tanks.

#### 6.4. Reference to other sections

See also section 8 and 13

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## SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Avoid contact with skin and eyes, inhalation of vapours and mists.

Don't use empty container before they have been cleaned.

Before making transfer operations, assure that there aren't any incompatible material residuals in the containers.

Contaminated clothing should be changed before entering eating areas.

Do not eat or drink while working.

See also section 8 for recommended protective equipment.

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

Store in area dedicated to alkaly products, keep away from acids and oxygen or peracetic acid based oxidants.

Store away from sunlight.

Store in a cool and well ventilated place.

Do not store in open or unlabeled containers.

Keep away from food, drink and feed.

Incompatible materials:

See section 10.

Instructions as regards storage premises:

- Adequately ventilated premises.  
7.3. Specific end use(s)  
None in particular, see paragraph 1.2

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## **SECTION 8: Exposure controls/personal protection**

### 8.1. Control parameters

Until the revision date of this document, no experimental data are available for the mixture.

Below, listed occupational exposure limits, if available, for the components listed in paragraph 3.2.

2-(2-BUTOXYETHOXY)ETHANOL - CAS: 112-34-5

EU - LTE(8h): 67.5 mg/m<sup>3</sup>, 10 ppm - STE(15min): 101.2 mg/m<sup>3</sup>, 15 ppm

ACGIH - LTE(8h): 10 ppm

2-AMINOETHANOL - CAS: 141-43-5

EU - LTE(8h): 2.5 mg/m<sup>3</sup>, 1 ppm - STE: 7.6 mg/m<sup>3</sup>, 3 ppm - Notes: Bold-type:

Indicative Occupational Exposure Limit Values [2,3] and Limit Values for Occupational Exposure [4] (for references see bibliography)

ACGIH - LTE(8h): 3 ppm - STE: 6 ppm - Notes: Eye and skin irr

POTASSIUM HYDROXIDE - CAS: 1310-58-3

ACGIH - STE: C 2 mg/m<sup>3</sup> - Notes: URT, eye, and skin irr

### DNEL Exposure Limit Values

Until the revision date of this document, no experimental data are available for the mixture.

Below, listed the DNEL exposure limits, if available, for the components listed in paragraph 3.2.

2-(2-BUTOXYETHOXY)ETHANOL - CAS: 112-34-5

Worker Industry: 67.5 mg/m<sup>3</sup> - Consumer: 34 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term (repeated)

Worker Industry: 20 mg/kg - Consumer: 10 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 101.2 mg/m<sup>3</sup> - Consumer: 50.6 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Short Term, local effects

Consumer: 1.25 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

2-AMINOETHANOL - CAS: 141-43-5

Worker Industry: 1 mg/kg - Consumer: 0.24 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects

Worker Industry: 3.3 mg/m<sup>3</sup> - Consumer: 2 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term (repeated)

Consumer: 3.75 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects

POTASSIUM HYDROXIDE - CAS: 1310-58-3

Worker Industry: 1 mg/m<sup>3</sup> - Consumer: 1 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, systemic effects

Worker Industry: 1 mg/m<sup>3</sup> - Consumer: 1 mg/m<sup>3</sup> - Exposure: Human Inhalation - Frequency: Long Term, local effects

### PNEC Exposure Limit Values

Until the revision date of this document, no experimental data are available for the mixture.

Below, listed the PNEC exposure limits, if available, for the components listed in paragraph 3.2.

2-(2-BUTOXYETHOXY)ETHANOL - CAS: 112-34-5

Target: Marine water - Value: 0.1 mg/l

Target: Marine water sediments - Value: 0.4 mg/kg

Target: Microorganisms in sewage treatments - Value: 200 mg/l

Target: Soil (agricultural) - Value: 0.4 mg/kg

Target: Freshwater sediments - Value: 4 mg/kg

2-AMINOETHANOL - CAS: 141-43-5

Target: Marine water - Value: 0.0085 mg/l

Target: Fresh Water - Value: 0.085 mg/l

Target: Air - Value: 0.025 mg/l  
 Target: Marine water sediments - Value: 0.0425 mg/kg  
 Target: Microorganisms in sewage treatments - Value: 100 mg/l

**8.2. Exposure controls**

**Eye protection:**

Use close fitting safety goggles, don't use eye lens.(EN 166)

**Protection for skin:**

Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton (EN 14605 in case of splashes or EN 13982 in case of dust)

**Protection for hands:**

Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber. (EN 388 - EN 374 protection factor 6, corresponding to a breakthrough time >480 minutes).

Due to great diversity of types, observe the operating instructions of the manufacturer with respect to substances listed in paragraph 3.2.

**Respiratory protection:**

Not needed for normal use.

**Thermal Hazards:**

The product is not flammable or explosive - see paragraph 2.1. The product contains no explosive components.

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

**Environmental exposure controls:**

The product is not dangerous for the environment - see section 2.1.

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

**Appropriate engineering controls:**

No further technical checks suitable for your product under normal conditions.

See also section 1.2, section 7 and Exposure Scenario - Annex I of this document.

**SECTION 9: Physical and chemical properties**

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

<b>Properties</b>	<b>Value</b>	<b>Method:</b>	<b>Notes:</b>
Appearance and colour:	Clear liquid, yellow	Visual	--
Odour:	Citrus	Olfactory	--
Odour threshold:	Evident	Olfactory	--
pH:	> 13,0	--	Estimated value on chemical / physical properties of components
Melting point / freezing point:	Not Relevant	--	Parameter not relevant for the type of product
Initial boiling point and boiling range:	>= 100 °c	--	Estimated value on chemical / physical properties of components
Flash point:	> 65 ° C	--	Estimated value on chemical / physical properties of components
Evaporation rate:	Not Relevant	--	Parameter not relevant for the type of product
Solid/gas flammability:	Not Relevant	--	Parameter not relevant for the type of product

Upper/lower flammability or explosive limits:	Not Relevant	--	Parameter not relevant for the type of product
Vapour pressure:	Not Relevant	--	Parameter not relevant for the type of product
Vapour density:	Not Relevant	--	Parameter not relevant for the type of product
Relative density:	1.048 g/ml	Instrumental control	--
Solubility in water:	Total	--	internal tests
Solubility in oil:	Partial	--	internal tests
Partition coefficient (n-octanol/water):	< 1000	--	Value estimated based on the solubility of the mixture.
Auto-ignition temperature:	Not Relevant	--	Parameter not relevant for the type of product
Decomposition temperature:	Not Relevant	--	Parameter not relevant for the type of product
Viscosity:	< 10 cP	--	Estimated indicative value. Not viscous mixture.
Explosive properties:	Not Relevant	--	Parameter not relevant for product composition.
Oxidizing properties:	Not Relevant	--	Parameter not relevant for product composition.

#### 9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	Not Relevant	--	Parameter not relevant for the type of product
Fat Solubility:	Not Relevant	--	Parameter not relevant for the type of product
Conductivity:	Not Relevant	--	Parameter not relevant for the type of product
Substance Groups relevant properties	Not Relevant	--	Parameter not relevant for the type of product

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

### 10.2. Chemical stability

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

### 10.3. Possibility of hazardous reactions

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

See also section 7.2.

Store in area dedicated to alkali products, keep away from acids and oxygen or peracetic acid based oxidants.

### 10.4. Conditions to avoid

Different uses than recommended. Do not use in combination with other products. See also 1.2 and 7.2



10.5. Incompatible materials

Acids, oxygen-based oxidants, peracetic acid, organic substances.

Store in area dedicated to alkaly products, keep away from acids and oxygen based oxidants and peracetic acid.

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability. see also 1.2 and 7.2.

10.6. Hazardous decomposition products

Until the revision date of this document, no adverse effects and symptoms to exposure of the product are known, including chemical reactivity and instability.

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**SECTION 11: Toxicological information**

11.1. Information on toxicological effects

Toxicological information of the mixture:

Until the revision date of this document, are not available experimental toxicological data on the mixture.

For the classification of the mixture see section 2.1.

Not applicable

Toxicological information of the main substances found in the mixture:

Below are reported, if available, the toxicological information of the components listed in paragraph 3.2.

2-(2-BUTOXYETHOXY)ETHANOL - CAS: 112-34-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Mouse = 2410 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit = 2764 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 29 ppm - Duration: 2h

b) skin corrosion/irritation:

Test: Skin Irritant No - Source: OECD 404

c) serious eye damage/irritation:

Test: Eye Irritant Yes - Source: OECD 405

d) respiratory or skin sensitisation:

Test: Skin or Resp. Sensitization Negative

e) germ cell mutagenicity:

Test: Mutagenesis Negative

f) carcinogenicity:

Test: Carcinogenicity Negative

g) reproductive toxicity:

Test: Reproductive Toxicity Negative

2-AMINOETHANOL - CAS: 141-43-5

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 1515 mg/kg

Test: LD50 - Route: Skin - Species: Rabbit = 2504 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 1.3 mg/l - Duration: 6h

b) skin corrosion/irritation:

Test: Skin Corrosive - Route: Skin - Species: Rabbit Positive

c) serious eye damage/irritation:

Test: Eye Corrosive - Species: Rabbit Positive

d) respiratory or skin sensitisation:

Test: Skin or Resp. Sensitization Negative

e) germ cell mutagenicity:

Test: Mutagenesis Negative

2-PROPYLHEPTANOL ETHOXYLATED PROPOXYLATED - CAS: 166736-08-9

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 300 mg/kg

b) skin corrosion/irritation:



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- Test: Skin Irritant - Route: Skin - Species: Rabbit Negative - Source: OECD 404
- c) serious eye damage/irritation:  
Test: Eye Corrosive - Species: Rabbit Positive - Source: OECD 405
- d) respiratory or skin sensitisation:  
Test: Skin or Resp. Sensitization Negative - Source: OECD 406
- e) germ cell mutagenicity:  
Test: Mutagenesis Negative - Source: Ames test
- POTASSIUM HYDROXIDE - CAS: 1310-58-3
- a) acute toxicity:  
Test: LD50 - Route: Oral - Species: Rat = 273 mg/kg - Source: OECD 401
- b) skin corrosion/irritation:  
Test: Skin Corrosive Positive
- c) serious eye damage/irritation:  
Test: Eye Corrosive Positive

If not differently specified, the information required in Regulation (EU)2015/830 listed below must be considered as Not Applicable:

- a) acute toxicity;
- b) skin corrosion/irritation;
- c) serious eye damage/irritation;
- d) respiratory or skin sensitisation;
- e) germ cell mutagenicity;
- f) carcinogenicity;
- g) reproductive toxicity;
- h) STOT-single exposure;
- i) STOT-repeated exposure;
- j) aspiration hazard.

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## SECTION 12: Ecological information

### 12.1. Toxicity

Adopt good working practices, so that the product is not released into the environment. The environmental hazard of the product are reported in Section 2.1 if applicable. Until the revision date of this document, are not available experimental data on the mixture. Below are reported, if available, the eco-toxicological information of the components listed in paragraph 3.2.

2-(2-BUTOXYETHOXY)ETHANOL - CAS: 112-34-5

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 1300 mg/l - Duration h: 96 - Notes: Lepomis macrochirus

Endpoint: EC50 - Species: Daphnia > 100 mg/l - Duration h: 48 - Notes: Daphnia magna

Endpoint: EC50 - Species: Algae > 100 mg/l - Duration h: 72 - Notes: Scenedesmus subspicatus

2-AMINOETHANOL - CAS: 141-43-5

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 349 mg/l - Duration h: 96 - Notes: Cyprinus carpio

Endpoint: LC50 - Species: Fish = 170 mg/l - Duration h: 96 - Notes: Carassius auratus

Endpoint: EC50 - Species: Daphnia = 65 mg/l - Duration h: 48 - Notes: Daphnia magna

Endpoint: EC50 - Species: Algae = 2.5 mg/l - Duration h: 72 - Notes: Selenastrum capricornutum

Endpoint: EC50 - Species: Algae = 22 mg/l - Duration h: 72 - Notes: Scenedesmus subspicatus

Endpoint: NOEC - Species: Algae = 1 mg/l - Duration h: 72 - Notes: Selenastrum capricornutum

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Fish = 1.2 mg/l - Duration h: 720 - Notes: Oryzias latipes  
Endpoint: NOEC - Species: Daphnia = 0.85 mg/l - Duration h: 504 - Notes: Daphnia magna

c) Bacteria toxicity:

Endpoint: EC50 - Species: Microorganisms / Effect on activated sludge: = 110 mg/l - Duration h: 16 - Notes: Pseudomonas putida

2-PROPYLHEPTANOL ETHOXYLATED PROPOXYLATED - CAS: 166736-08-9

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish > 10 mg/l - Duration h: 96 - Notes: Brachydanio rerio  
Endpoint: EC50 - Species: Daphnia > 10 mg/l - Duration h: 48 - Notes: Daphnia magna  
Endpoint: EC50 - Species: Algae > 10 mg/l - Duration h: 72 - Notes: Scenedesmus subspicatus  
Endpoint: EC10 - Species: Algae > 1 mg/l - Notes: Desmodesmus subspicatus

POTASSIUM HYDROXIDE - CAS: 1310-58-3

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 80 mg/l - Duration h: 24 - Notes: Mosquito fish

12.2. Persistence and degradability

Until the revision date of this document, are not available experimental data on the mixture. Below are reported, if available, the eco-toxicological information of the components listed in paragraph 3.2.

2-(2-BUTOXYETHOXY)ETHANOL - CAS: 112-34-5

Biodegradability: Readily biodegradable - Test: OECD 301C - Duration: 28 days - %: 80-90 - Notes: Not applicable

2-AMINOETHANOL - CAS: 141-43-5

Biodegradability: Readily biodegradable - Test: OECD 301A - Duration: 21 days - %: >90%

2-PROPYLHEPTANOL ETHOXYLATED PROPOXYLATED - CAS: 166736-08-9

Biodegradability: Readily biodegradable - Test: OECD 301B - Duration: 28 days

The surfactant(s) contained in this preparation complies with the biodegradability criteria laid down in Regulation (EC) No 648/2004 on detergents. All supporting data are kept available to the competent authorities of the Member States and will be provided to those authorities if they so request or at the request of a detergent manufacturer.

12.3. Bioaccumulative potential

Until the revision date of this document, are not available experimental data on the mixture. Below are reported, if available, the eco-toxicological information of the components listed in paragraph 3.2.

2-(2-BUTOXYETHOXY)ETHANOL - CAS: 112-34-5

Bioaccumulation: Not bioaccumulative - Test: Kow - Partition coefficient 0.56 -

2-AMINOETHANOL - CAS: 141-43-5

Bioaccumulation: Slightly bioaccumulative

12.4. Mobility in soil

Until the revision date of this document, are not available experimental data on the mixture. Below are reported, if available, the eco-toxicological information of the components listed in paragraph 3.2.

Not applicable

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

Until the revision date of this document, unknown adverse effects and symptoms towards the environment.

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**SECTION 13: Disposal considerations**

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### 13.1. Waste treatment methods

Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force. Do not discharge into the ground or into drains.

See also section 6

## SECTION 14: Transport information



### 14.1. UN number

ADR-UN Number: 1760  
IATA-UN Number: 1760  
IMDG-UN Number: 1760

### 14.2. UN proper shipping name

ADR-Shipping Name: CORROSIVE LIQUID, N.O.S. (potassium hydroxide, 2-aminoethanol)  
IATA-Shipping Name: CORROSIVE LIQUID, N.O.S. (potassium hydroxide, 2-aminoethanol)  
IMDG-Shipping Name: CORROSIVE LIQUID, N.O.S. (potassium hydroxide, 2-aminoethanol)

### 14.3. Transport hazard class(es)

ADR-Class: 8  
ADR-Label 8  
ADR - Hazard identification number: 80  
IATA-Class/Division: 8  
IATA-Label: 8  
IMDG-Class/Division: 8  
IMDG-Label 8

### 14.4. Packing group

ADR-Packing Group: III  
IATA-Packing group: III  
IMDG-Packing group: III

### 14.5. Environmental hazards

ADR-Environmental Pollutant: No  
IMDG-Marine pollutant: No

### 14.6. Special precautions for user

ADR-Subsidiary risks: -  
ADR-S.P.: 274  
ADR-Tunnel Restriction Code: E  
IATA-Passenger Aircraft: 852  
IATA-Subsidiary risks: -  
IATA-Cargo Aircraft: 856  
IATA-S.P.: -  
IATA-ERG: 8L  
IMDG-S.P.: 223 274  
IMDG-EmS: F-A , S-B  
IMDG-Subsidiary risks: -  
IMDG-Storage category: Category A  
IMDG-Storage notes: SW2

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- IMDG-Segregation notes -  
14.7. Transport in bulk according to Annex II of Marpol and the IBC Code  
Not applicable

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#### SECTION 15: Regulatory information

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture  
Dir. 98/24/EC (Risks related to chemical agents at work)  
Dir. 2000/39/EC (Occupational exposure limit values)  
Regulation (EC) n. 1907/2006 (REACH)  
Regulation (EC) n. 1272/2008 (CLP)  
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013  
Regulation (EU) 2015/830  
Regulation (EU) n. 286/2011 (ATP 2 CLP)  
Regulation (EU) n. 618/2012 (ATP 3 CLP)  
Regulation (EU) n. 487/2013 (ATP 4 CLP)  
Regulation (EU) n. 944/2013 (ATP 5 CLP)  
Regulation (EU) n. 605/2014 (ATP 6 CLP)

Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

None

Where applicable, refer to the following regulatory provisions :

Regulation (EC) nr 648/2004 (detergents).  
1999/13/EC (VOC directive)

Provisions related to directive EU 2012/18 (Seveso III):

Seveso III category according to Annex 1, part 1  
None

15.2. Chemical safety assessment

No, for instructions on safe mangling you see Sections 7 and 8 and the exposure scenario - Annex I of this document.

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#### SECTION 16: Other information

Full text of phrases referred to in Section 3:

H319 Causes serious eye irritation.  
H314 Causes severe skin burns and eye damage.  
H302 Harmful if swallowed.  
H312 Harmful in contact with skin.  
H332 Harmful if inhaled.  
H412 Harmful to aquatic life with long lasting effects.  
H335 May cause respiratory irritation.  
H315 Causes skin irritation.  
H318 Causes serious eye damage.  
H290 May be corrosive to metals.

Paragraphs modified from the previous revision:

SECTION 1: Identification of the substance/mixture and of the company/undertaking  
SECTION 3: Composition/information on ingredients  
SECTION 4: First aid measures  
SECTION 5: Firefighting measures  
SECTION 7: Handling and storage  
SECTION 8: Exposure controls/personal protection  
SECTION 9: Physical and chemical properties

SECTION 10: Stability and reactivity  
SECTION 11: Toxicological information  
SECTION 12: Ecological information  
SECTION 14: Transport information  
SECTION 15: Regulatory information

The classification of the product is based on conventional calculation method.

This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:

ECDIN - Environmental Chemicals Data and Information Network - Joint Research Centre,  
Commission of the European Communities  
SAX's DANGEROUS PROPERTIES OF INDUSTRIAL MATERIALS - Eight Edition - Van  
Nostrand Reinold

The information contained herein is based on our state of knowledge at the above-specified date. It refers solely to the product indicated and constitutes no guarantee of particular quality. It is the duty of the user to ensure that this information is appropriate and complete with respect to the specific use intended.

This MSDS cancels and replaces any preceding release.

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.  
CAS: Chemical Abstracts Service (division of the American Chemical Society).  
CLP: Classification, Labeling, Packaging.  
DNEL: Derived No Effect Level.  
EC0/10/20/50/100: Effective concentration, for 0/10/20/50/100 percent of test population.  
EINECS: European Inventory of Existing Commercial Chemical Substances.  
GefStoffVO: Ordinance on Hazardous Substances, Germany.  
GHS: Globally Harmonized System of Classification and Labeling of Chemicals.  
IATA: International Air Transport Association.  
IATA-DGR: Dangerous Goods Regulation by the "International Air Transport Association" (IATA).  
ICAO: International Civil Aviation Organization.  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO).  
IMDG: International Maritime Code for Dangerous Goods.  
INCI: International Nomenclature of Cosmetic Ingredients.  
KSt: Explosion coefficient.  
LC0/10/20/50/100: Lethal concentration, for 0/10/20/50/100 percent of test population.  
LD0/10/20/50/100: Lethal dose, for 0/10/20/50/100 percent of test population.  
LTE: Long-term exposure.  
NOEC: No Observed Effect Concentration  
NOAEL(R)/N: No Observed Adverse Effect Level(Repeated)/Concentration  
OAEC:  
OECD: Organisation for Economic Co-operation and Development  
PNEC: Predicted No Effect Concentration.  
RID: Regulation Concerning the International Transport of Dangerous Goods by Rail.  
STE: Short-term exposure.  
STEL: Short Term Exposure limit.



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STOT: Specific Target Organ Toxicity.  
TLV: Threshold Limiting Value.  
TWATLV: Threshold Limit Value for the Time Weighted Average 8 hour day.  
(ACGIH Standard).  
WGK: German Water Hazard Class.

**Safety Data Sheet**  
**GRES**



ANNEX I  
PROFESSIONAL PRODUCT – DETERGENT FOR HARD SURFACES

<b>Title of exposure scenario</b>	
Detergent for general cleaning: Manual process.	
<b>Use description</b>	
Sector Use	SU22 – Professional use
Product Category	PC35 – Cleaning and washing product (including solvent based products)
<b>Description of activities/process considered on exposure scenario.</b>	
Dilute with water as specified on the label, if necessary.	
Use following the use instruction as specified on the label.	
Leave on.	
Rinse, if necessary.	
<b>Frequency and duration</b>	
Use phase	- 1 time a day for daily cleaning detergents - Periodical for specific detergents
Relevant limit values of ingredients, if available, are stated in section 8 of the SDS.	
<b>Physical appearance and concentration</b>	
Liquid. To dilute or ready to use.	
In section 2 of the SDS of product and on the label the classification of mixture is provided.	
Mixture classification is based on ingredients classification and on chemical/physical properties stated in section 9 of the SDS of product.	
<b>Use conditions</b>	
Room temperature	
Good general ventilation at workplace is sufficient.	
<b>Protection</b>	
See section 8 of the SDS of product to more information on PPE.	Training of worker to use and maintenance of PPE is supposed.
Don't eat or drink, don't smoke.	Avoid contact with damaged skin.
No open flame.	Do not use in combination with other products
Wash hand after use.	
In case of accidental release: dilute with water and dry.	
See section 6 of the SDS in case of accidental release	
Follow use instruction as specified on the label or on technical sheet. Use good occupational hygiene practices as specified in section 7 on the SDS.	
<b>Environmental measures</b>	
See section 6 of the SDS in case of accidental release	
See section 12 of the SDS for ecotoxicological information of mixture and dangerous ingredients.	
See section 13 of the SDS for disposal considerations.	

Note:

SDS: Safety Data Sheet

PPE: Personal Protection Equipment