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

- Product identifier
- Trade name: ACTISTRONG
- Article number: c.p. 386
- Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the preparation Surface cleanser
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  LINDHAUS SRL
  Via Belgio, 22 Z.I. - 35127 Padova - Italy
  Tel. +39 049 8700307 - Fax +39 049 8700605
  www.lindhaus.it - vacuum@lindhaus.it
- Further information obtainable from: vacuum@lindhaus.it
- Emergency telephone number: LINDHAUS SRL - Tel. +39 049 8700307

2 Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

GHS05 corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

- Classification according to Directive 67/548/EEC or Directive 1999/45/EC

C; Corrosive

R34: Causes burns.

- Information concerning particular hazards for human and environment:
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

- Classification system:
The classification is according to the latest editions of the EU-lists, and extended by company and literature data.

- Label elements

- Labelling according to EU guidelines:
The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials.

- Code letter and hazard designation of product:

C Corrosive

- Hazard-determining components of labelling:
sodium hydroxide

- Risk phrases:
34 Causes burns.

- Safety phrases:
  2 Keep out of the reach of children.
  26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  36/37/39 Wear suitable protective clothing, gloves and eyeface protection.
  45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
Trade name: ACTISTRONG

- Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

### 3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture of substances listed below with nonhazardous additions.

#### Dangerous components:

<table>
<thead>
<tr>
<th>CAS</th>
<th>Chemical name</th>
<th>Concentration range</th>
</tr>
</thead>
<tbody>
<tr>
<td>112-34-5</td>
<td>2-(2-butoxyethoxy)ethanol</td>
<td>2.5-10%</td>
</tr>
<tr>
<td>203-961-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2015-185-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1310-73-2</td>
<td>sodium hydroxide</td>
<td>≤ 2.5%</td>
</tr>
<tr>
<td>203-961-6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>61789-30-8</td>
<td>Fatty acids, coco, potassium salts</td>
<td>≤ 2.5%</td>
</tr>
<tr>
<td>263-049-9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>142-87-0</td>
<td>sodium decyl sulphate</td>
<td>≤ 2.5%</td>
</tr>
<tr>
<td>205-568-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>142-31-4</td>
<td>sodium octyl sulphate</td>
<td>≤ 2.5%</td>
</tr>
<tr>
<td>205-535-5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>68439-46-3</td>
<td>C9-11 Alcohol ethoxylate, 5.5EO</td>
<td>≤ 2.5%</td>
</tr>
</tbody>
</table>

#### Regulation (EC) No 648/2004 on detergents / Labelling for contents

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

#### Additional information:
For the wording of the listed risk phrases refer to section 16.

### 4 First aid measures

- Description of first aid measures
- General information: Immediately remove any clothing soiled by the product.
- After inhalation: In case of unconsciousness place patient stably in side position for transportation.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.
- After swallowing: Drink plenty of water and provide fresh air. Call for a doctor immediately.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed: No further relevant information available.

### 5 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents:
  - CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- Special hazards arising from the substance or mixture: No further relevant information available.
Trade name: ACTISTRONG

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
- Environmental precautions:
  Dilute with plenty of water.
  Do not allow to enter sewers/surface or ground water.
- Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Use neutralizing agent.
  Dispose contaminated material as waste according to item 13.
  Ensure adequate ventilation.
- Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

7 Handling and storage

- Handling:
  - Precautions for safe handling: Keep receptacles tightly sealed.
  - Information about fire - and explosion protection: The product is not flammable.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: Store only in the original receptacle.
  - Information about storage in one common storage facility: Do not store together with acids.
  - Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.
- Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

- Additional information about design of technical facilities: No further data; see item 7.
- Control parameters
- Ingredients with limit values that require monitoring at the workplace:
  - 112-34-5 2-(2-butoxyethoxy)ethanol
    WEL: Short-term value: 101.2 mg/m³, 15 ppm
    Long-term value: 67.5 mg/m³, 10 ppm
  - 1310-73-2 sodium hydroxide
    WEL: Short-term value: 2 mg/m³
- Additional information: The lists valid during the making were used as basis.
- Exposure controls
  - Personal protective equipment:
    - General protective and hygienic measures:
      - Immediately remove all soiled and contaminated clothing
      - Wash hands before breaks and at the end of work.
      - Avoid contact with the eyes and skin.
    - Respiratory protection: Not necessary if room is well-ventilated.
Trade name: ACTISTRONG

- Protection of hands:
  
  Protective gloves

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- Material of gloves
  
  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material cannot be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material
  
  The exact breakthrough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:
  
  Tightly sealed goggles

### 9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Appearance:
  - Form: Fluid
  - Colour: Colourless
  - Odour: Odourless
  - Odour threshold: Not determined.
- pH-value: 12 - 13
- Change in condition
  - Melting point/Melting range: Undetermined.
  - Boiling point/Boiling range: > 100°C
- Flash point: Not applicable.
- Flammability (solid, gaseous): Not applicable.
- Ignition temperature: Not applicable
- Decomposition temperature: Not determined.
- Self-igniting: Product is not self-igniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.
- Vapour pressure: Not determined.
- Density at 20°C: 1.010 - 1.050 g/cm³
- Relative density: Not determined.
- Vapour density: Not determined.
Safety data sheet
according to 1907/2006/EC, Article 31

Printing date 24.06.2011
Revision: 24.06.2011
Version number 2

Trade name: ACTISTRONG

10 Stability and reactivity

- Reactivity
- Chemical stability
  - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
  - Possibility of hazardous reactions: No dangerous reactions known.
  - Conditions to avoid: No further relevant information available.
  - Incompatible materials: No further relevant information available.
  - Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
  - Acute toxicity:
    - LD/LC50 values relevant for classification:
      - 1310-73-2 sodium hydroxide
        |  | Oral | Dermal |
        | LD50 | 1350 mg/kg (rat) | 1350 mg/kg (rat) |
  - Primary irritant effect:
    - on the skin: Caustic effect on skin and mucous membranes.
    - on the eye: Strong caustic effect.
    - Sensitization: No sensitizing effects known.
  - Additional toxicological information:
    The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
    - Corrosive
    - Swallowing will lead to a strong caustic effect on mouth and throat and to the danger of perforation of esophagus and stomach.

12 Ecological information

- Toxicity
  - Aquatic toxicity: No further relevant information available.
- Persistence and degradability
  - The surfactants contained in the product correspond to the direction on the environmental compatibility of detergents and are biodegradable.
- Behaviour in environmental systems:
  - Bioaccumulative potential: Not worth-mentioning accumulating in organisms
  - Mobility in soil: No further relevant information available.
Trade name: ACTISTRONG

- Additional ecological information:
- General notes:
  Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
  Must not reach sewage water or drainage ditch undiluted or unneutralized.
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- Other adverse effects No further relevant information available.

13 Disposal considerations
- Waste treatment methods
  Recommendation
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- Uncleaned packaging:
  Recommendation: Disposal must be made according to official regulations.
  Recommended cleansing agents: Water, if necessary together with cleansing agents.

14 Transport information
- UN-Number
  ADR, IMDG, IATA  1824
- UN proper shipping name
  ADR  1824 SODIUM HYDROXIDE SOLUTION, mixture
  IMDG, IATA SODIUM HYDROXIDE SOLUTION, mixture
- Transport hazard class(es)
  ADR
  - Class  8 Corrosive substances.
  - Label  8
  IMDG, IATA
  - Class  8 Corrosive substances.
  - Label  8
- Packing group
  ADR, IMDG, IATA  III
- Environmental hazards:
  Marine pollutant: No
  Special precautions for user  Warning: Corrosive substances.
  Danger code (Kemler): 80
  EMS Number: F-A,S-B
  Segregation groups Alkalis
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  Not applicable.
Trade name: ACTISTRONG

Transport/Additional information:
- ADR
- Tunnel restriction code: E
- UN "Model Regulation": UN1824, SODIUM HYDROXIDE SOLUTION, mixture, 8, III

15 Regulatory information
- Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information
- This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- Relevant phrases
  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.
  R22 Harmful if swallowed.
  R35 Causes severe burns.
  R36 Irritating to eyes.
  R36/38 Irritating to eyes and skin.
  R38 Irritating to skin.
  R41 Risk of serious damage to eyes.

- Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  ICAO: International Civil Aviation Organization
  GHS: Globally Harmonized System of Classification and Labelling of Chemicals
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent

* Data compared to the previous version altered.