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

1.1. Product identifier
Mixture identification:
Trade name: E-STRIP
Trade code: AP032-415

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

1.3. Details of the supplier of the safety data sheet
Company:
LEGOR GROUP S.p.A.
Via del Lavoro, 1
36050 Bressanvido (VI)
Italy

LEGOR GROUP S.p.A.
tel. +39 0444 467911 fax +39 0444 660677
Competent person responsible for the safety data sheet:
info@legor.com

1.4. Emergency telephone number
Centro Antiveleni
Ospedale di Niguarda "Ca Grande"
Piazza Ospedale Maggiore 3
20162 Milano
Telephone: +39 (0) 2/66 10 10 29
Telefax: +39 (0) 2/64 44 27 68
Italiano (French, English)
(24-hour-service)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
Directive criteria, 67/548/CE, 99/45/EC and following amendments thereof:

Properties / Symbols:
- Toxic for reproduction category 2
- Xi Irritant
- C Corrosive

R Phrases:
- R35 Causes severe burns.
- R37 Irritating to respiratory system.
- R61 May cause harm to the unborn child.

EC regulation criteria 1272/2008 (CLP):
- Warning, Acute Tox. 4, Harmful if inhaled.
- Danger, Skin Corr. 1A, Causes severe skin burns and eye damage.
- Danger, Eye Dam. 1, Causes serious eye damage.
- Danger, Resp. Sens. 1, May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Warning, Muta. 2, Suspected of causing genetic defects.

Danger, Repr. 1B, May damage fertility or the unborn child.

Warning, STOT SE 3, May cause respiratory irritation.

Warning, STOT RE 2, May cause damage to organs through prolonged or repeated exposure.

Adverse physicochemical, human health and environmental effects:
No other hazards

2.2. Label elements
Symbols:

Danger
Hazard statements:
H332 Harmful if inhaled.
H314 Causes severe skin burns and eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341 Suspected of causing genetic defects.
H360 May damage fertility or the unborn child.
H335 May cause respiratory irritation.
H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements:
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P281 Use personal protective equipment as required.
P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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.
P308+P313 IF EXPOSED OR CONCERNED: Get medical advice/attention.
P310 Immediately call a POISON CENTER or doctor/physician.
P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P405 Store locked up.
P501 Dispose of contents/container in accordance with applicable regulations.

Special Provisions:
PACK1 The packing must be featured by a safety lock for children and have a tactive indications for blind people.
PACK2 The packing must have tactive indications of danger for blind people.

Contents:
N-methyl-2-pyrrolidone
potassium hydroxide; caustic potash

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

SECTION 3: Composition/information on ingredients
3.1. Substances
   N.A.
3.2. Mixtures
   Hazardous components within the meaning of EEC directive 67/548 and CLP regulation and
   related classification:
   >= 30% - < 40% N-methyl-2-pyrrolidone
   Index number: 606-021-00-7, CAS: 872-50-4, EC: 212-828-1
   Repr. Cat. 2, Xi; R36/37/38-61
       3.7/1B Repr. 1B H360
       3.3/2 Eye Irrit. 2 H319
       3.8/3 STOT SE 3 H335
       3.2/2 Skin Irrit. 2 H315

   >= 5% - < 7% potassium hydroxide; caustic potash
   Xn,C; R22-35
       3.1/4/Oral Acute Tox. 4 H302
       3.2/1A Skin Corr. 1A H314

SVHC Substances:
   >= 30% - < 40% N-methyl-2-pyrrolidone
   Index number: 606-021-00-7, CAS: 872-50-4, EC: 212-828-1
   Substance SVHC

SECTION 4: First aid measures
4.1. Description of first aid measures
In case of skin contact:
   Immediately take off all contaminated clothing.
   Areas of the body that have - or are only even suspected of having - come into contact with
   the product must be rinsed immediately with plenty of running water and possibly with soap.
   OBTAIN IMMEDIATE MEDICAL ATTENTION.
   Wash thoroughly the body (shower or bath).
   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:

In case of inhalation, consult a doctor immediately and show him packing or label.

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

None

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:

None

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

- Water.
- Carbon dioxide (CO2).
- CO2 or Dry chemical fire extinguisher.

Extinguishing media which must not be used for safety reasons:

None in particular.

5.2. Special hazards arising from the substance or mixture

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.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Wear personal protection equipment.

Wear breathing apparatus if exposed to vapours/dusts/aerosols.

Provide adequate ventilation.

Use appropriate respiratory protection.

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.

6.4. Reference to other sections

See also section 8 and 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

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

Use localized ventilation system.

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
Keep away from food, drink and feed.
Incompatible materials:
None in particular.
Instructions as regards storage premises:
Cool and adequately ventilated.

7.3. Specific end use(s)
None in particular

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
N-methyl-2-pyrrolidone - CAS: 872-50-4
EU - LTE(8h): 40 mg/m3, 10 ppm - STE: 80 mg/m3, 20 ppm - Notes: 15 minutes average value (for references see bibliography)
potassium hydroxide; caustic potash - CAS: 1310-58-3
TLV STEL - C 0.87 ppm - C 2 mg/m3

 DNEL Exposure Limit Values
 N.A.
PNEC Exposure Limit Values
 N.A.

8.2. Exposure controls
Eye protection:
Use close fitting safety goggles, don't use eye lens.

Protection for skin:
Use clothing that provides comprehensive protection to the skin, e.g. cotton, rubber, PVC or viton.

Protection for hands:
Use protective gloves that provides comprehensive protection, e.g. P.V.C., neoprene or rubber.

Respiratory protection:
Use respiratory protection where ventilation is insufficient or exposure is prolonged.

Thermal Hazards:
None

Environmental exposure controls:
None

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties
Appearance and colour: Amber coloured liquid
Odour: Odourless
Odour threshold: N.A.
pH: 12
Melting point / freezing point: N.A.
Initial boiling point and boiling range: 204°C
Solid/gas flammability: N.A.
Upper/lower flammability or explosive limits: N.A.
Vapour density: N.A.
Flash point: 76.7 °C
Evaporation rate: N.A.
Vapour pressure: 0.2 mm Hg @ 68°F
Relative density: 1.03
Solubility in water: Total
Partition coefficient (n-octanol/water): N.A.
Safety Data Sheet  
E-STRIP

Auto-ignition temperature: 245°C  
Decomposition temperature: N.A.  
Viscosity: N.A.  
Explosive properties: N.A.  
Oxidizing properties: N.A.

9.2. Other information  
Miscibility: N.A.  
Fat Solubility: N.A.  
Conductivity: N.A.  
Substance Groups relevant properties N.A.

SECTION 10: Stability and reactivity

10.1. Reactivity  
Stable under normal conditions

10.2. Chemical stability  
Stable under normal conditions

10.3. Possibility of hazardous reactions  
It may generate flammable gases on contact with halogenated organic substances, and elementary metals.

10.4. Conditions to avoid  
Stable under normal conditions.

10.5. Incompatible materials  
Avoid contact with combustible materials. The product could catch fire.

10.6. Hazardous decomposition products  
None.

SECTION 11: Toxicological information

11.1. Information on toxicological effects  
Toxicological information of the mixture:
E-STRIP
  a) acute toxicity:  
    Test: LC50 - Route: Inhalation - Species: Rat > 5.1 mg/l - Duration: 4h  
    Test: LD50 - Route: Skin - Species: Rat > 5000 mg/kg  

Toxicological information of the main substances found in the mixture:  
N.A.

May cause harm to the unborn child.  
Toxic for reproduction category 2

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:  
  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.

SECTION 12: Ecological information

12.1. Toxicity  
Adopt good working practices, so that the product is not released into the environment.  
N.A.
12.2. Persistence and degradability
None

Biodegradability: Readily biodegradable - Test: N.A. - Duration: N.A. - %: N.A. - Notes: N.A.

12.3. Bioaccumulative potential
N.A.

12.4. Mobility in soil

Mobility in soil: Mobile - Test: Leaching column N.A. - Duration: N.A. - Notes: 73% in 28 days

12.5. Results of PBT and vPvB assessment

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects
None

SECTION 13: Disposal considerations

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.

SECTION 14: Transport information

14.1. UN number

ADR-UN number: 3267
IATA-Un number: 3267
IMDG-Un number: 3267

14.2. UN proper shipping name

ADR-Shipping Name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POTASSIUM HYDROXIDE)
IATA-Technical name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POTASSIUM HYDROXIDE)
IMDG-Technical name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POTASSIUM HYDROXIDE)

14.3. Transport hazard class(es)

ADR-Class: 8
ADR-Label: 8
IATA-Class: 8
IATA-Label: 8
IMDG-Class: 8

14.4. Packing group

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

14.5. Environmental hazards

Marine pollutant: No

14.6. Special precautions for user

Rail (RID): 8
IATA-Passenger Aircraft: max.qty: 1L, PI: 851
IATA-Cargo Aircraft: max.qty: 30L, PI: 855
IMDG-Technical name: CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (POTASSIUM HYDROXIDE)

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
N.A.
SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture
Dir. 67/548/EEC (Classification, packaging and labelling of dangerous substances)
Dir. 99/45/EC (Classification, packaging and labelling of dangerous preparations)
Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Dir. 2006/8/EC
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) n. 453/2010 (Annex I)
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 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:
Directive 82/501/EEC (Activities linked to risks of serious accidents) and subsequent amendments.
1999/13/EC (VOC directive)

SVHC Substances:
Substances in candidate list (Art. 59 Reg. 1907/2006, REACH):
N-methyl-2-pyrrolidone
Toxic to reproduction

15.2. Chemical safety assessment

No

SECTION 16: Other information

Text of phrases referred to under heading 3:
R10 Flammable.
R14 Reacts violently with water.
R20 Harmful by inhalation.
R22 Harmful if swallowed.
R35 Causes severe burns.
R36/37/38 Irritating to eyes, respiratory system and skin.
R41 Risk of serious damage to eyes.
R42 May cause sensitization by inhalation.
R48/22 Harmful; danger of serious damage to health by prolonged exposure if swallowed.
R61 May cause harm to the unborn child.
R68 Possible risk of irreversible effects.

H360 May damage fertility or the unborn child.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
H315 Causes skin irritation.
H226 Flammable liquid and vapour.
H341 Suspected of causing genetic defects.
H373 May cause damage to organs through prolonged or repeated exposure.
H318 Causes serious eye damage.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H332 Harmful if inhaled.
H302 Harmful if swallowed.
H314 Causes severe skin burns and eye damage.
This safety data sheet has been completely updated in compliance to Regulation 453/2010/EU. 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
- CCNL - Appendix 1

Insert further consulted bibliography

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.
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).
INCI: International Nomenclature of Cosmetic Ingredients.
Kst: Explosion coefficient.
LC50: Lethal concentration, for 50 percent of test population.
LD50: Lethal dose, for 50 percent of test population.
LTE: Long-term exposure.
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.
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.

"The information herein is given in good faith, but no warranty, express or implied, is made."