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

1.1. Product identifier
   Trade name:
   POLURENE AD

1.2. Relevant identified uses of the substance or mixture and uses advised against
   Recommended use: Hardener for coating materials or adhesives for industrial and trade applications.
   Uses advised against: Not suitable for DIY use.

1.3. Details of the supplier of the safety data sheet
   S.A.P.I.C.I. Spa Via Bergamo, 2 - 20063 Cernusco s/N (MI)
   Tel +39 02 921871 Fax +39 02 92102331
   Responsible for the safety data sheet:  HSE@sapici.it

1.4. Emergency telephone number
   Poison Center - Niguarda Hospital - Milan - Tel. +39 02 66101029

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture
   EC regulation criteria 1272/2008 (CLP):
   - Danger, Flam. Liq. 2, Highly flammable liquid and vapour.
   - Warning, Eye Irrit. 2, Causes serious eye irritation.
   - Danger, Resp. Sens. 1, May cause allergy or asthma symptoms or breathing difficulties if inhaled.
   - Warning, Skin Sens. 1, May cause an allergic skin reaction.
   - Warning, STOT SE 3, May cause drowsiness or dizziness.
   EUH066 Repeated exposure may cause skin dryness or cracking.
   Adverse physicochemical, human health and environmental effects:
   No other hazards

2.2. Label elements
   Labelling (1272/2008/CE):
   Hazard pictograms:
   - Danger
Hazard statements:
- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H317 May cause an allergic skin reaction.
- H336 May cause drowsiness or dizziness.

Precautionary statements:
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P312 Call a POISON CENTER/doctor if you feel unwell.
- P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER/doctor.
- P370+P378 In case of fire: Use powder, foam or CO2 for extinction.

Special Provisions:
- EUH066 Repeated exposure may cause skin dryness or cracking.

Contents:
- toluene diisocyanate-trimethylolpropane polymer
- ethyl acetate
- m-tolylidene diisocyanate; toluene-diisocyanate

Special provisions according to Annex XVII of REACH and subsequent amendments:
- None

2.3. Other hazards
- vPvB Substances: None
- PBT Substances: None
- No other hazards

SECTION 3: Composition/information on ingredients

3.1. Substances
- N.A.

3.2. Mixtures

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

<table>
<thead>
<tr>
<th>Qty</th>
<th>Name</th>
<th>Ident. Number</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>~ 75 %</td>
<td>toluene diisocyanate-trimethylolpropane polymer</td>
<td>CAS: 53317-61-6, EC: 500-120-8</td>
<td>3.3/2 Eye Irrit. 2 H319, 3.4.2/1-1A-1B Skin Sens. 1.1A,1B H317</td>
</tr>
<tr>
<td>~ 25 %</td>
<td>ethyl acetate</td>
<td>CAS: 141-78-6, EC: 205-500-4, REACH No.: 01-21194751 03-46</td>
<td>2.6/2 Flam. Liq. 2 H225, 3.3/2 Eye Irrit. 2 H319, 3.8/3 STOT SE 3 H336 EUH066</td>
</tr>
<tr>
<td>&lt; 0.5 %</td>
<td>m-tolylidene diisocyanate; toluene-diisocyanate</td>
<td>CAS: 26471-62-5, EC: 247-722-4, REACH No.: 01-21194547</td>
<td>3.1/1/Inhal Acute Tox. 1 H330, 3.2/2 Skin Irrit. 2 H315, 3.3/2 Eye Irrit. 2 H319</td>
</tr>
</tbody>
</table>
SECTION 4: First aid measures

4.1. Description of first aid measures

In case of skin contact:
Remove contaminated clothing immediately and dispose off safely. 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. Wash thoroughly the body (shower or bath). 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 under any circumstances induce vomiting. OBTAIN A MEDICAL EXAMINATION IMMEDIATELY.

In case of Inhalation:
Remove casualty to fresh air and keep warm and at rest. In case of unwellness, seek medical advice immediately.

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:
Fire extinguishing powder, foam or CO2. Use foam and water jets only in case of extensive fire outbreak.
Extinguishing media which must not be used for safety reasons: high volume water jet.

5.2. Special hazards arising from the substance or mixture
Burning produces heavy smoke.
Do not inhale combustion gases in case of a fire.
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.
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 escape into waterways, wastewater or soil.
Retain contaminated washing water and dispose it in compliance with the local and national regulations currently in force.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up
Cover the spilling with wet, absorbent material (e.g. sawdust, chemical binder based on calcium silicate hydrate, sand) and remove mechanically.
After approx. one hour transfer to waste container and do not seal (evolution of CO2!). Keep damp in a safe ventilated area for several days.

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.
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.
See also section 8 for recommended protective equipment.

7.2. Conditions for safe storage, including any incompatibilities
Store at below 45 °C. Keep away from unguarded flame and heat sources. Avoid direct exposure to sunlight.
Keep away from unguarded flame, sparks, and heat sources.
Keep away from food, drink and feed.
Further information on the storage conditions which must be observed to preserve quality can be found in our product information sheet.

7.3. Specific end use(s)
None in particular.
SECTION 8: Exposure controls/personal protection

8.1. Control parameters

ethyl acetate - CAS: 141-78-6

NIOSH - LTE: 1440 mg/m³, 400 ppm - Notes: ITALY

m-tolylidene diisocyanate; toluene-diisocyanate - CAS: 26471-62-5

ACGIH - LTE: 0.036 mg/m³, 0.005 ppm - STE: 0.14 mg/m³, 0.02 ppm - Notes: ITALY

DNEL Exposure Limit Values

ethyl acetate - CAS: 141-78-6

Worker Industry: 63 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Worker Industry: 1468 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Worker Industry: 1468 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects
Worker Industry: 734 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Worker Industry: 734 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects
Consumer: 4.5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects
Consumer: 37 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
Consumer: 734 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects
Consumer: 734 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, local effects
Consumer: 367 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects
Consumer: 367 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects

m-tolylidene diisocyanate; toluene-diisocyanate - CAS: 26471-62-5

Worker Industry: 0.14 mg/m³ - Exposure: Human Inhalation - Frequency: Short Term, systemic effects - Endpoint: Respiratory tract irritation
Worker Industry: 0.035 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, systemic effects - Endpoint: Respiratory tract irritation
Worker Industry: 0.035 mg/m³ - Exposure: Human Inhalation - Frequency: Long Term, local effects - Endpoint: Respiratory tract irritation

PNEC Exposure Limit Values

ethyl acetate - CAS: 141-78-6

Target: Marine water - Value: 0.026 mg/l
Target: Freshwater - Value: 0.26 mg/l
Target: Marine water sediments - Value: 0.034 mg/kg
Target: Freshwater sediments - Value: 0.34 mg/kg
Target: Intermittent release - Value: 1.65 mg/l
Target: STP - Value: 650 mg/l
Target: Soil - Value: 0.22 mg/kg
Target: Oral - Value: 200 mg/kg

m-tolylidene diisocyanate; toluene-diisocyanate - CAS: 26471-62-5

Target: Marine water - Value: 0.00125 mg/l
Target: Freshwater - Value: 0.0125 mg/l
Target: Intermittent release - Value: 0.125 mg/l
8.2. Exposure controls

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

Skin protection:
Wear suitable protective clothing.

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

Respiratory protection:
Use adequate protective respiratory equipment, e.g. A2-P2.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Properties</th>
<th>Value</th>
<th>Method:</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance and colour:</td>
<td>Liquid</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Odour:</td>
<td>Solvent-like</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Odour threshold:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>pH:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Melting point / freezing point:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Boiling point:</td>
<td>77 °C</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Flash point:</td>
<td>1 °C</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Solid/gas flammability:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Vapour pressure:</td>
<td>9.83 kPa @ 20°C</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Vapour density:</td>
<td>&gt; 1</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Relative density:</td>
<td>1.17 g/cm3</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Solubility in water:</td>
<td>Insoluble, REACTS WITH WATER</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Solubility in oil:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water):</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Auto-ignition temperature:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Oxidizing properties:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>
The indicated values do not necessarily correspond to the product specification. Please refer to the technical information sheet for specification data.

9.2. Other information

<table>
<thead>
<tr>
<th>Properties</th>
<th>Value</th>
<th>Method</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscibility:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Fat Solubility:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Conductivity:</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
<tr>
<td>Substance Groups</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>relevant properties</td>
<td>N.A.</td>
<td>--</td>
<td>--</td>
</tr>
</tbody>
</table>

SECTION 10: Stability and reactivity

10.1. Reactivity
Stable under normal conditions of storage and manipulation.

10.2. Chemical stability
Stable under normal conditions of storage and manipulation.

10.3. Possibility of hazardous reactions
Exothermic reaction with amines and alcohols; reacts with water forming CO2: in closed containers, risk of bursting owing to increase of pressure.
It may generate flammable gases on contact with elementary metals (alkalis and alkaline earth, alloys in powder or vapours) and powerful reducing agents.
It may generate toxic gases on contact with oxidising mineral acids, and powerful oxidising agents.

10.4. Conditions to avoid
Stable under normal conditions.

10.5. Incompatible materials
This information is not available.

10.6. Hazardous decomposition products
No hazardous decomposition products when stored and handled correctly.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Toxicological information of the mixture:
N.A.
Toxicological information of the main substances found in the mixture:
ethyl acetate - CAS: 141-78-6
a) acute toxicity:
Test: LD50 - Route: Oral - Species: Mouse 4100 mg/kg
Test: LD50 - Route: Skin - Species: Rabbit > 20000 mg/kg
Test: LC50 - Route: Inhalation - Species: Rat > 6000 ppm - Duration: 6h
b) skin corrosion/irritation:
Test: Skin Irritant - Route: Skin - Species: Rabbit Positive - Source: OECD 404
c) serious eye damage/irritation:
   Test: Eye Irritant - Route: Eyes - Species: Rabbit Positive - Source: OECD 405
d) respiratory or skin sensitisation:
   Test: Skin Sensitization - Route: Skin - Species: Guinea pig Negative - Source: OECD 406
e) germ cell mutagenicity:
   Test: Mutagenesis - Species: Hamster Negative - Source: OECD 474
g) reproductive toxicity:
   Test: NOAEL - Route: Oral - Species: Mouse 26400 mg/kg - Source: OECD 416
   Test: NOAEC - Route: Inhalation - Species: Rat 73300 mg/m3 - Source: OECD 414
   i) STOT-repeated exposure:
      Test: NOAEC - Species: Rat 750 ppm - Duration: 100 days - Source: OECD 424 - Notes:
      Target: Central nervous system
m-tolylidene diisocyanate; toluene-diisocyanate - CAS: 26471-62-5
a) acute toxicity:
   Test: LD50 - Route: Oral - Species: Rat, male 5110 mg/kg - Source: OECD 401
   Test: LD50 - Route: Oral - Species: Rat, female 4130 mg/kg - Source: OECD 401
   Test: LD50 - Route: Skin - Species: Rabbit > 9400 mg/kg - Source: OECD 402
   Test: LC50 - Route: Inhalation Vapour - Species: Rat 0.47 mg/l - Duration: 1h - Source:
      OECD 403
   Test: LC50 - Route: Inhalation Vapour - Species: Rat 0.107 mg/l - Duration: 4h - Source:
      OECD 403
b) skin corrosion/irritation:
   Test: Skin Irritant - Route: Skin - Species: Rabbit Positive - Duration: 4h - Source: OECD 404
c) serious eye damage/irritation:
   Test: Eye Irritant - Route: Eyes - Species: Rabbit Positive - Source: Draize test
d) respiratory or skin sensitisation:
   Test: Skin Sensitization - Route: Skin - Species: Rat Positive - Source: OECD 429
   Test: Respiratory Sensitization - Route: Inhalation - Species: Rat Positive - Source: OECD 429
e) germ cell mutagenicity:
   Test: Mutagenesis - Route: Inhalation - Species: Mouse Negative - Duration: 6h - Source:
      OECD 474
   Test: Mutagenesis - Route: In vitro - Species: Generic Bacteria Positive
f) carcinogenicity:
   Test: NOAEC - Route: Inhalation - Species: Rat 1086 mg/m3 - Duration: 2 years - Source:
      OECD 453
   Test: Carcinogenicity - Route: Oral - Species: Rat Positive - Source: OECD 453
g) reproductive toxicity:
   Test: NOAEL (teratogenicity) - Route: Inhalation Vapour - Species: Rat, female 0.5 ppm -
      Duration: 21 days - Source: OECD 414
   Test: NOAEL (fertility) - Route: Inhalation Vapour - Species: Rat, female 0.1 ppm - Duration:
      21 days - Source: OECD 414
   Test: NOAEL (developmental toxicity) - Route: Inhalation Vapour - Species: Rat, female 0.1
      ppm - Duration: 21 days - Source: OECD 414
h) STOT-single exposure:
   Test: STOT evaluation – one-time exposure - Route: Inhalation Positive - Notes: Target:
      respiratory tract
i) STOT-repeated exposure:
   Test: LOAEC - Route: Inhalation - Species: Rat 0.362 mg/m3 - Duration: 113 weeks - Source:
      OECD 453
If not differently specified, the information required in Regulation (EU)2015/830 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

Ethyl acetate - CAS: 141-78-6
a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish 230 mg/l - Duration h: 96 - Notes: Method OECD 203
b) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia 100 mg/l - Duration h: 48
a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae 5600 mg/l - Duration h: 48
a) Aquatic acute toxicity - Endpoint: NOEC - Species: Algae > 100 mg/l - Duration h: 72 - Notes: Method OECD 201
b) Aquatic chronic toxicity - Endpoint: NOEC - Species: Fish < 9.65 mg/l - Duration h: 96 - Notes: Method OECD 212
b) Aquatic chronic toxicity - Endpoint: NOEC - Species: Daphnia 2.4 mg/l - Duration h: 504
c) Bacteria toxicity - Endpoint: NOEC - Species: Pseudomonas putida 650 mg/l - Duration h: 16

M-tolylidene diisocyanate; toluene-diisocyanate - CAS: 26471-62-5
a) Aquatic acute toxicity - Endpoint: LC50 - Species: Fish 133 mg/l - Duration h: 96 - Notes: Method OECD 203
a) Aquatic acute toxicity - Endpoint: EC50 - Species: Daphnia 12.5 mg/l - Duration h: 48 - Notes: Method OECD 202
a) Aquatic acute toxicity - Endpoint: EC50 - Species: Algae 3230 mg/l - Duration h: 96 - Notes: Method OECD 201
b) Aquatic chronic toxicity - Endpoint: NOEC - Species: Daphnia 1.1 mg/l - Duration h: 504 - Notes: Method OECD 211
c) Bacteria toxicity - Endpoint: EC50 - Species: Activated sludge 100 mg/l - Duration h: 3 - Notes: Method OECD 209
d) Terrestrial toxicity - Endpoint: LC50 - Species: Earthworm > 1000 mg/kg - Duration h: 336 - Notes: Method OECD 207
e) Plant toxicity - Endpoint: LC50 - Species: Avena sativa > 1000 mg/kg - Duration h: 336 - Notes: Method OECD 208

12.2. Persistence and degradability

Ethyl acetate - CAS: 141-78-6
Biodegradability: Readily biodegradable - Test: Biochemical oxygen demand - Duration: 28 days - %: 70 - Notes: Method OECD 301

M-tolylidene diisocyanate; toluene-diisocyanate - CAS: 26471-62-5
Biodegradability: Non-readily biodegradable - Test: Biochemical oxygen demand - Duration: 28 days - %: 0 - Notes: Method OECD 302C
12.3. Bioaccumulative potential
ethyl acetate - CAS: 141-78-6
  Bioaccumulation: Not much bioaccumulative - Test: BCF - Bioconcentration factor 30 - Duration: 3 days
  - Notes: N.A.
  Bioaccumulation: N.A. Test: LogKow 0.68 - Duration: N.A. - Notes: N.A.
m-tolylidene diisocyanate; toluene-diisocyanate - CAS: 26471-62-5
  Bioaccumulation: Not bioaccumulative - Test: LogKow 3.43 - Duration: N.A. - Notes: N.A.

12.4. Mobility in soil
ethyl acetate - CAS: 141-78-6
  Mobility in soil: Mobile - Test: N.A. N.A. - Duration: N.A. - Notes: N.A.

12.5. Results of PBT and vPvB assessment
vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects
Information not available.

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: UN 1866
  IATA-Un number: UN 1866
  IMDG-Un number: UN 1866

14.2. UN proper shipping name
  ADR-Shipping Name: Resin solution

14.3. Transport hazard class(es)
  ADR-Class: 3
  IATA-Class: 3

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

14.5. Environmental hazards

14.6. Special precautions for user
  IMDG-EMS: F-E,S-E

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code
  N.R.

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)
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 2012/18/UE (Seveso 3)
- 1999/13/EC (VOC directive)
- WGK Classification (Water hazard class - Verwaltungsvorschrift wassergefährdende Stoffe)
  - WGK3 - Highly hazardous for water

Provisions related to directives 82/501/EC(Seveso), 96/82/EC(Seveso II), 2012/18/UE(Seveso III):
N.A.

15.2. Chemical safety assessment
No

SECTION 16: Other information

Text of phrases referred to under heading 3:
- H319 Causes serious eye irritation.
- H317 May cause an allergic skin reaction.
- H225 Highly flammable liquid and vapour.
- H336 May cause drowsiness or dizziness.
- EUH066 Repeated exposure may cause skin dryness or cracking.
- H330 Fatal if inhaled.
- H315 Causes skin irritation.
- H34 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- H351 Suspected of causing cancer.
- H335 May cause respiratory irritation.
- H412 Harmful to aquatic life with long lasting effects.

This safety data sheet has been completely updated in compliance to Regulation 2015/830.
This document was prepared by a competent person who has received appropriate training.

Main bibliographic sources:
- NIOSH - Registry of toxic effects of chemical substances (1983)
- I.N.R.S. - Fiche Toxicologique
- CCNL - Appendix 1 "TLV for 1989-90"
- Advanced Health Institute - National Chemical Substances Inventory

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. The information
relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process.
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.
KSI: 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.