

# Safety Data Sheet

## EPAMINE PC 11



Safety Data Sheet dated 11/2/2016, version 3

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

#### 1.1. Product identifier

Mixture identification:

Trade name: EPAMINE PC 11

Trade code: PF/11

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

Recommended use:

Hardener for epoxy resin

Uses advised against:

All uses not listed among the uses recommended

#### 1.3. Details of the supplier of the safety data sheet

Company:

PO.INT.ER SRL

Via Fontanelle,18 - 14107 Valfenera (AT) - ITALY

Competent person responsible for the safety data sheet:

lab@pointersrl.it

#### 1.4. Emergency telephone number

PO.INT.ER SRL

Via Fontanelle,18 - 14107 Valfenera (AT) - ITALY

phone +39 0141 939068 fax +39 0141 681021

h8.30-h12.30 / h13.30-h17.30 Monday to Friday

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

EC regulation criteria 1272/2008 (CLP):

⚠ Warning, Acute Tox. 4, Harmful if swallowed.

⚠ Warning, Acute Tox. 4, Harmful in contact with skin.

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

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

⚠ Warning, Skin Sens. 1, May cause an allergic skin reaction.

Aquatic Chronic 3, Harmful to aquatic life with long lasting effects.

Adverse physicochemical, human health and environmental effects:

No other hazards

#### 2.2. Label elements

Symbols:



Danger

Hazard statements:

H302+H312 Harmful if swallowed or in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

Precautionary statements:

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

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P264 Wash ... Thoroughly after handling.  
 P270 Do not eat, drink or smoke when using this product.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/if you feel unwell.  
 P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
 P302+P352 IF ON SKIN: Wash with plenty of water/...  
 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.  
 P310 Immediately call a POISON CENTER/doctor/...  
 P321 Specific treatment (see ... On this label).  
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
 P362+P364 Take off contaminated clothing and wash it before reuse.  
 P363 Wash contaminated clothing before reuse.  
 P405 Store locked up.  
 P501 Dispose of contents/container in accordance with applicable regulations.

**Special Provisions:**

None

**Contents:**

3-aminomethyl-3,5,5-trimethylcyclohexylamine  
 benzyl alcohol

**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 the CLP regulation and related classification:

Qty	Name	Ident. Number	Classification
>= 50% - < 70%	3-aminomethyl-3,5,5-trimethylcyclohexylamine	Index number: 612-067-00-9 CAS: 2855-13-2 EC: 220-666-8 REACH No.: 01-2119514687-32	⚠ 3.1/4/Dermal Acute Tox. 4 H312 ⚠ 3.1/4/Oral Acute Tox. 4 H302 ⚠ 3.2/1B Skin Corr. 1B H314 ⚠ 3.4.2/1-1A-1B Skin Sens. 1, 1A,1B H317 4.1/C3 Aquatic Chronic 3 H412
>= 30% - < 50%	benzyl alcohol	Index number: 603-057-00-5 CAS: 100-51-6 EC: 202-859-9	⚠ 3.1/4/Oral Acute Tox. 4 H302 ⚠ 3.1/4/Inhal Acute Tox. 4 H332

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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.
- Give nothing to eat or drink.

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

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

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

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

- 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.

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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.

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- 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

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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  
Keep away from food, drink and feed.  
Incompatible materials:  
None in particular.  
Instructions as regards storage premises:  
Adequately ventilated premises.
- 7.3. Specific end use(s)  
None in particular

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### SECTION 8: Exposure controls/personal protection

- 8.1. Control parameters  
benzyl alcohol - CAS: 100-51-6  
TLV TWA - 10 ppm 45 45 mg/m<sup>3</sup>
- DNEL Exposure Limit Values  
benzyl alcohol - CAS: 100-51-6  
Consumer: 25 mg/kg - Exposure: Human Oral - Frequency: Short Term, systemic effects  
Consumer: 5 mg/kg - Exposure: Human Oral - Frequency: Long Term, systemic effects  
Worker Professional: 47 mg/kg - Exposure: Human Dermal - Frequency: Short Term, systemic effects  
Worker Professional: 9.5 mg/kg - Exposure: Human Dermal - Frequency: Long Term, systemic effects
- PNEC Exposure Limit Values  
3-aminomethyl-3,5,5-trimethylcyclohexylamine - CAS: 2855-13-2  
Target: Fresh Water - Value: 0.06 mg/l  
Target: Marine water - Value: 0.006 mg/l  
Target: Freshwater sediments - Value: 5.784 mg/kg  
Target: Marine water sediments - Value: 0.578 mg/kg  
Target: Soil (agricultural) - Value: 1.121 mg/kg  
benzyl alcohol - CAS: 100-51-6  
Target: Soil (agricultural) - Value: 0.456 mg/kg  
Target: Freshwater sediments - Value: 5.27 mg/kg  
Target: Marine water sediments - Value: 0.527 mg/kg

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Target: Marine water - Value: 0.1 mg/l

Target: Fresh Water - Value: 1 mg/l

#### 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 adequate protective respiratory equipment.

Thermal Hazards:

None

Environmental exposure controls:

None

Appropriate engineering controls:

None

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## SECTION 9: Physical and chemical properties

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

Properties	Value	Method:	Notes:
Appearance and colour:	limpid liquid, amber-yellow	--	--
Odour:	ammonia	--	--
Odour threshold:	N.A.	--	--
pH:	N.A.	--	--
Melting point / freezing point:	N.A.	--	--
Initial boiling point and boiling range:	>190°C	--	--
Flash point:	>90°C °C	--	--
Evaporation rate:	N.A.	--	--
Solid/gas flammability:	N.A.	--	--
Upper/lower flammability or explosive limits:	N.A.	--	--
Vapour pressure:	N.A.	--	--
Vapour density:	N.A.	--	--
Relative density:	1.07	--	--

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Solubility in water:	partially soluble	--	--
Solubility in oil:	alcooli, glicoleteri, idrocarburi aromatici	--	--
Partition coefficient (n-octanol/water):	N.A.	--	--
Auto-ignition temperature:	N.A.	--	--
Decomposition temperature:	N.A.	--	--
Viscosity:	N.A.	--	--
Explosive properties:	N.A.	--	--
Oxidizing properties:	N.A.	--	--

#### 9.2. Other information

Properties	Value	Method:	Notes:
Miscibility:	N.A.	--	--
Fat Solubility:	N.A.	--	--
Conductivity:	N.A.	--	--
Substance Groups relevant properties	N.A.	--	--

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## 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 elementary metals (alkalis and alkaline earth) and powerful reducing agents.

It may generate toxic gases on contact with oxidising mineral acids, halogenated organic substances, organic peroxides and hydroperoxides, and powerful oxidising agents.

It may catch fire on contact with powerful oxidising agents.

### 10.4. Conditions to avoid

Stable under normal conditions.

### 10.5. Incompatible materials

None in particular.

### 10.6. Hazardous decomposition products

None.

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### 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:

3-aminomethyl-3,5,5-trimethylcyclohexylamine - CAS: 2855-13-2

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 1030 mg/kg

b) skin corrosion/irritation:

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

Test: Eye Corrosive - Species: Rabbit Positive

d) respiratory or skin sensitisation:

Test: Skin Sensitization Positive - Source: Contatto ripetuto

e) germ cell mutagenicity:

Test: Mutagenesis Negative

f) carcinogenicity:

Test: Carcinogenicity Negative

g) reproductive toxicity:

Test: Reproductive Toxicity Negative

benzyl alcohol - CAS: 100-51-6

a) acute toxicity:

Test: LD50 - Route: Oral - Species: Rat = 1620 mg/kg

Test: LC50 - Route: Inhalation - Species: Rat > 4178 mg/m<sup>3</sup> - Duration: 4h

b) skin corrosion/irritation:

Test: Skin Irritant Negative

c) serious eye damage/irritation:

Test: Eye Irritant Positive

e) germ cell mutagenicity:

Test: Mutagenesis Positive - Source: OECD 476 in vitro

Test: Mutagenesis Negative - Source: OECD 474

g) reproductive toxicity:

Test: Reproductive Toxicity - Route: Oral - Species: Mouse Positive 750 mg/kg -

Notes: 192h

Test: Reproductive Toxicity - Route: Oral - Species: Mouse Negative 550 mg/kg -

Notes: 240h

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For Ingestion: Harmful if swallowed

For Inhalation: Harmful by inhalation

For eye contact: Risk of serious damage to eyes.

Contact with skin: irritation and skin sensitization.

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.

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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.

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a) Aquatic acute toxicity:

= - Notes: WGK: 2

3-aminomethyl-3,5,5-trimethylcyclohexylamine - CAS: 2855-13-2

a) Aquatic acute toxicity:

Endpoint: LC50 - Species: Fish = 110 mg/l - Duration h: 96

Endpoint: EC50 - Species: Daphnia = 23 mg/l - Duration h: 48

Endpoint: EC50 - Species: Algae > 50 mg/l - Duration h: 72

b) Aquatic chronic toxicity:

Endpoint: NOEC - Species: Daphnia = 3 mg/l - Duration h: 504

benzyl alcohol - CAS: 100-51-6

a) Aquatic acute toxicity:

Endpoint: EC50 - Species: Daphnia = 230 mg/l - Duration h: 48

Species: Algae = 700 mg/l - Duration h: 72

Endpoint: LC50 - Species: Fish = 460 mg/l - Duration h: 96

c) Bacteria toxicity:

Endpoint: EC50 = 390 mg/l - Duration h: 24

#### 12.2. Persistence and degradability

None

3-aminomethyl-3,5,5-trimethylcyclohexylamine - CAS: 2855-13-2

Biodegradability: Non-readily biodegradable - Test: N.A. - Duration: N.A. - %: N.A.

- Notes: N.A.

benzyl alcohol - CAS: 100-51-6

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

Notes: N.A.

#### 12.3. Bioaccumulative potential

3-aminomethyl-3,5,5-trimethylcyclohexylamine - CAS: 2855-13-2

Bioaccumulation: Not bioaccumulative - Test: N.A. N.A. - Duration: N.A. - Notes:

N.A.

benzyl alcohol - CAS: 100-51-6

Bioaccumulation: Bioaccumulative - Test: BCF - Bioconcentration factor 1.37 -

Duration: N.A. - Notes: N.A.

#### 12.4. Mobility in soil

3-aminomethyl-3,5,5-trimethylcyclohexylamine - CAS: 2855-13-2

Mobility in soil: Not 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

None

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### 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.

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### SECTION 14: Transport information



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- 14.1. UN number  
ADR-UN Number: 2735  
IATA-UN Number: 2735  
IMDG-UN Number: 2735
- 14.2. UN proper shipping name  
ADR-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3-aminomethyl-3,5,5-trimethylcyclohexylamine)  
IATA-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3-aminomethyl-3,5,5-trimethylcyclohexylamine)  
IMDG-Shipping Name: AMINES, LIQUID, CORROSIVE, N.O.S. or POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3-aminomethyl-3,5,5-trimethylcyclohexylamine)
- 14.3. Transport hazard class(es)  
ADR-Class: 8  
ADR - Hazard identification number: 80  
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  
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: 851  
IATA-Subsidiary risks: -  
IATA-Cargo Aircraft: 855  
IATA-S.P.: A3 A803  
IATA-ERG: 8L  
IMDG-EmS: F-A , S-B  
IMDG-Subsidiary risks: -  
IMDG-Storage category: Category A  
IMDG-Storage notes: "Separated from" acids.
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code  
No

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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)

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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 II)  
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:

Restrictions related to the product:

Restriction 3

Restrictions related to the substances contained:

No restriction.

Where applicable, refer to the following regulatory provisions :

Directive 82/501/EEC ('Activities linked to risks of serious accidents') and subsequent amendments.

Regulation (EC) nr 648/2004 (detergents).

1999/13/EC (VOC directive)

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

15.2. Chemical safety assessment  
No

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### SECTION 16: Other information

Text of phrases referred to under heading 3:

H312 Harmful in contact with skin.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H412 Harmful to aquatic life with long lasting effects.

H332 Harmful if inhaled.

### SECTION 2: Hazards identification

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

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	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).
IMDG:	International Maritime Code for Dangerous Goods.
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.