

**Material safety data sheet**  
According to EU Regulation 1907/2006 in the current version  
**Panthenol**

**1. Identification of the substance/mixture and company**

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Trade name: Panthenol  
D-Panthenol is the pro-vitamin of D-Pantheic acid (vitamin B5)  
INCI Panthenol  
CAS No. : 81-13-0  
EINECS No. : -  
REACH pre-registration No. : -  
Utilization: Raw material for cosmetic or professional use  
Supplier company identification: Elemental SRL, Piața Cazărmii no.15, 410188-Oradea, jud.Bihor, Romania  
Tel/Fax: +40259-436.755, www.elemental.eu  
Emergency: RO: număr național pentru cazuri de urgență: 021 3183606 Institutul de  
Sănătate Publică București.  
International emergency number: +49 180 2273-112

**2. Hazards Identification**

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**2.1 Classification of the substance or mixture**

According to UN GHS criteria  
No need for classification according to GHS criteria for this product.

**2.2 Label elements**

Globally Harmonized System (GHS)  
The product does not require a hazard warning label in accordance with GHS criteria.

**2.2 Other hazards**

According to UN GHS criteria  
No specific dangers known, if the regulations/notes for storage and handling are considered

**3. Declaration of ingredients**

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**3.1 Substances**  
Not applicable

**3.2 Mixtures**  
Chemical nature: Preparation based on Dexpanthenol (Content (W/W): 75 %), Water

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**4. First aid measures**

**4.1 Description of first aid measures**

Remove contaminated clothing.

If inhaled: Keep patient calm, remove to fresh air.

On skin contact: Wash thoroughly with soap and water.

On contact with eyes: Wash affected eyes for at least 15 minutes under running water with eyelids held open. If adverse health effects develop seek medical attention.

On ingestion: Rinse mouth and then drink plenty of water.

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

Symptoms: No significant symptoms are expected due to the non-classification of the product.

Hazards: No hazard is expected under intended use and appropriate handling.

**4.3 Indication of any immediate medical attention and special treatment needed**

Treatment: Symptomatic treatment (decontamination, vital functions).

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**5. Fire fighting measures**

**5.1 Extinguishing media**

Suitable extinguishing media: water spray, carbon dioxide, dry powder, foam.

**5.2 Special hazards arising from the substance or mixture**

Harmful vapors. Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

**5.3 Advice for fire-fighters**

Special protective equipment: Wear a self-contained breathing apparatus.

**5.4 Further information**

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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## 6. Accidental release measures

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6.1 Personal precautions, protective equipment and emergency procedures  
No special precautions necessary.

6.2 Environmental precautions  
Do not discharge into drains/surface waters/groundwater.

6.3 Methods and material for containment and cleaning up  
For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).  
For large amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).  
Dispose of absorbed material in accordance with regulations.

6.4 Reference to other sections  
Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

## 7. Handling and storage

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7.1 Precautions for safe handling  
Handle in accordance with good industrial hygiene and safety practice.  
Protection against fire and explosion: Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

7.2 Conditions for safe storage, including any incompatibilities  
Suitable materials for containers: Stainless steel 1.4401, Stainless steel 1.4301 (V2), enameled, High density polyethylene (HDPE), Aluminum, glass, Low density polyethylene (LDPE). Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

7.3 Specific end use(s)  
For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

## 8. Exposure controls / personal protection

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### 8.1 Control parameters

Components with occupational exposure limits

156-87-6: 3-Aminopropan-1-ol
1310-73-2: sodium hydroxide
18996-35-5: Sodium dihydrogen citrate

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## 8.2 Exposure controls

### Personal protective equipment

Hand protection: Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc. Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection: Safety glasses with side-shields (frame goggles) (e.g. EN 166).

General safety and hygiene measures: Handle in accordance with good industrial hygiene and safety practice.

## 9. Physical and chemical properties

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### 9.1 Information on basic physical and chemical properties

Form: liquid

Color: slightly yellowish

Odor: characteristic

Odor threshold: not determined

pH value: 5,5 - 7,0

onset of boiling: > 100°C contains water

Flash point: > 101°C

Aqueous preparation

Evaporation rate: Value can be approximated from Henry's Law Constant or vapor pressure.

Flammability: Based on the structure or composition there is no indication of flammability

Flammability of Aerosol Products: not applicable, the product does not form flammable aerosols

Lower explosion limit: For liquids not relevant for classification and labeling.

Upper explosion limit: For liquids not relevant for classification and labeling.

Ignition temperature: No data available.

Vapor pressure: approx. 23 hPa (20°C)

Density: approx. 1,16 g/cm<sup>3</sup> (25°C)

Relative vapor density (air): not determined

Solubility in water: readily soluble

Partitioning coefficient n-octanol/water (log K<sub>ow</sub>): not determined

Self ignition: not self-igniting

Thermal decomposition: > 40°C

Viscosity, dynamic: not determined

Viscosity, kinematic: not determined

Explosion hazard: Based on the chemical structure there is no indicating of explosive properties.

Fire promoting properties: Based on its structural properties the product is not classified as oxidizing.

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**9.2 Other information**

If necessary, information on other physical and chemical parameters is indicated in this section. No further information available.

**10. Stability and reactivity**

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**10.1 Reactivity**

No hazardous reactions if stored and handled as prescribed/indicated.

**10.2 Chemical stability**

The product is stable if stored and handled as prescribed/indicated.

**10.3 Possibility of hazardous reactions**

None if used for intended purpose.

**10.4 Conditions to avoid**

See MSDS section 7 - Handling and storage.

**10.5 Incompatible materials**

Substances to avoid: No substances known that should be avoided.

**10.6 Hazardous decomposition products**

No hazardous decomposition products known.

**11. Toxicological information**

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**11.1 Information on toxicological effects**

Acute toxicity

Assessment of acute toxicity:

Experimental/calculated data:

Virtually nontoxic after a single ingestion.

LD50 rat (oral): > 5.000 mg/kg

Irritation

Assessment of irritating effects:

Assessment of sensitization:

Not irritating to eyes and skin. Respiratory/Skin sensitization

There is no evidence of a skin-sensitizing potential.

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Germ cell mutagenicity Assessment of mutagenicity:	The chemical structure does not suggest a specific alert for such an effect.
Carcinogenicity Assessment of carcinogenicity:	The chemical structure does not suggest a specific alert for such an effect.
Reproductive toxicity Assessment of reproduction toxicity:	The chemical structure does not suggest a specific alert for such an effect.
Developmental toxicity Assessment of teratogenicity:	No data was available concerning toxicity to development.
Specific target organ toxicity (single exposure) Assessment of STOT single:	Based on available Data, the classification criteria are not met.
Repeated dose toxicity and Specific target organ toxicity (repeated exposure) Assessment of repeated dose toxicity:	The information available on the product provides no indication of toxicity on target organs after repeated exposure.
Aspiration hazard No aspiration hazard expected.	

**11.2 Other relevant toxicity information**

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

**12. Ecological information**

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**12.1 Toxicity**

Assessment of aquatic toxicity:	At the present state of knowledge, no negative ecological effects are expected. Toxicity to fish: LC50 > 100 mg/l Microorganisms/Effect on activated sludge: EC0 > 100 mg/l
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**12.2 Persistence and degradability**

Assessment biodegradation and elimination (H2O): Readily biodegradable (according to OECD criteria). Easily eliminated from water.

**12.3 Bioaccumulative potential**

Assessment bioaccumulation potential: Accumulation in organisms is not to be expected.

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**12.4 Mobility in soil**

Assessment transport between environmental compartments: Volatility: not applicable

**12.5 Results of PBT and vPvB assessment**

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria.

**12.6 Other adverse effects**

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

**12.7 Additional information**

Other ecotoxicological advice: The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

**13. Disposal considerations**

**13.1 Waste treatment methods**

Observe national and local legal requirements.

**14. Transport information**

**14.1 Land transport**

**ADR**

Not classified as a dangerous good under transport regulations	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

**RID**

Not classified as a dangerous good under transport regulations	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable

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Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

#### 14.2 Inland waterway transport

##### ADN

Not classified as a dangerous good under transport regulations	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	None known
Transport in inland waterway vessel:	Not evaluated

#### 14.3 Sea transport

##### IMDG

Not classified as a dangerous good under transport regulations	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

#### 14.4 Air transport

Not classified as a dangerous good under transport regulations	
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable



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Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

**14.5 UN number**

See corresponding entries for "UN number" for the respective regulations in the tables above.

**14.6 UN proper shipping name**

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

**14.7 Transport hazard class(es)**

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

**14.8 Packing group**

See corresponding entries for "Packing group" for the respective regulations in the tables above.

**14.9 Environmental hazards**

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

**14.10 Special precautions for user** See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

**14.11 Transport in bulk according to Annex II of MARPOL and the IBC Code**

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

**15. Regulatory information**

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

**16. Additional information**

**16.1 Abbreviations:**

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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.

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.

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.

**Disclaimer:**

This material safety data sheet does not constitute a guarantee of the properties of the product and is not a contractual legal report. The information is given in good faith on the basis of our best knowledge of the product at the indicated time. However, we cannot accept responsibility or liability for any consequences arising from its use, no warranty for correctness and completeness is given. We caution the users against the incurred possible risks when the product is used at other ends than the use for which it was initially planned. It is the user's responsibility during handling, storage and product use to consult the main regulatory texts in force regarding workers and environment protection.