

**1, Product and Company Identification**

Material Name: D-Panthenol  
INCI Name: D-Panthenol  
Company Information: Manufacturer:  
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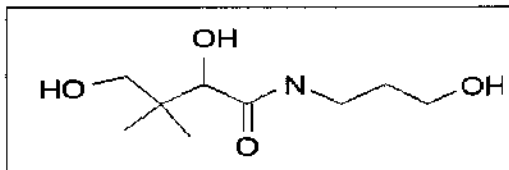
**2, Composition/Information on Ingredients**

Characterization: B-group provitamin; alcohol analogue of D-pantothenic acid (vitamin B5)

Chemical name: -(R)-2,4-Dihydroxy-N-(3-hydroxypropyl)-3,3-dimethylbutyramide

Synonyms: -D(+)- $\alpha$ ,  $\gamma$ -Dihydroxy-N-(3-hydroxypropyl)- $\beta$ ,  
 $\beta$ -dimethyl butan-amide  
-Dexpanthenol (INN)  
-D-Pantothenyl alcohol  
-Panthenol  
-Provitamin B5

CAS number: 81-13-0  
EINECS number: 201 327 3  
Empirical formula:  $C_9H_{19}NO_4$

**3, Hazards-identification**

Most important hazards no particular hazards known

#### 4, First-aid Measures

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- Eye contact: -since immediately with tap water for 10 minutes-open eyelids forcibly  
-consult physician
- Skin contact: -remove contaminated clothes, wash affected skin with water and Soap. do not use any solvents.
- Inhalation: -remove the casualty to fresh air and keep him/her calm.
- Note to physician: -treat symptomatically

#### 5, Fire-fighting measure

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- Suitable extinguishing media: -water spray jet, dry powder, foam, carbon dioxide
- Specific hazards: -formation of toxic and corrosive combustion gases (nitrogen oxides (NO<sub>x</sub>)) possible  
-when using lots of water on burning open containers a burning water product mix. May overflow, possibly spreading the fire
- Protection of fire-fighters -precipitate gases/vapors/mists with water spray

#### 6, Accidental release measure

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- Methods for cleaning up -collect spills with inert absorbent and hand over to waste removal  
-flush afterwards with plenty of water

#### 7, Handling and storage

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- Handling
- Technical measure: -processing in closed systems, if possible superposed by inert gas (e.g. nitrogen)  
-local exhaust ventilation necessary  
-take precautionary measures against electrostatic charging
- Suitable material: -stainless steel, glass, polyethylene, enamel
- Storage
- Storage conditions: -room temperature  
-protected from humidity
- Validity: -24months, 20 to 25°C, in the unopened original container, see "best use before" data stated on the label
- Packaging materials: -tightly closing; material: stainless steel, glass, Polyethylene

#### 8, Exposure controls personal protection

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- Engineering Measures: see 7
- Respiratory protection: -respiratory protection not necessary during normal operations  
-in case of intense formation of aerosols: respirator with independent air supply or particle respectively filter mask (depending on the aerosol composition).

Hand protection: -protective gloves  
Eye protection: -safety glasses

## 9, Physical and chemical properties

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Color: colorless to slightly yellow, clear  
Form: viscous liquid (room temperature)  
Turning water-thin on heating  
May crystallize on prolonged storage  
Odor: none to faint  
With slightly bitter taste  
Solubility: well soluble, water  
well soluble, methanol  
well soluble, ethanol  
barely soluble, diethyl ether  
badly soluble, chloroform  
insoluble, oils and fats  
Density: 1.16g/cm<sup>3</sup> (20°C)  
Refractive Index: 1.495-1.502(20°C)  
Viscosity: about 238123 cP (20°C)  
About 128 cP ((100°C)  
PH value(5% solution): 9.0-10.5  
Boiling temperature: 210°C  
Flash point (liquid):  $\geq 140^{\circ}\text{C}$   
Ignition point (liquid): 405°C

## 10, Stability and reactivity

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Stability: -stable under the conditions mentioned in chapter7  
-fairly stable to air and light  
Conditions to avoid: -humidity  
-warming  
Materials to avoid: -bases, acids, carbon dioxide, alkali metals

## 11, Toxicological information

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Acute toxicity: -LD<sub>50</sub> >5'000 mg/kg (oral, mice)  
-LD<sub>50</sub> >2'200 mg/kg (percutaneous , guinea pigs)  
Acute Irritation: -skin: no irritate (rabbit)  
-eye: inconsequential irritate (rabbit)  
Sensitization: -no positive sensitization response is observed in the experimental guinea pigs.

**12, Ecological information**

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Inherent biodegradability: -well inherently biodegradable  
Ecotoxicity: -barely toxic for fish  
-barely toxic for algae  
-barely toxic for plankton and shellfish

**13, Disposal considerations**

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Waste from residues: -drain into wastewater treatment plant, observe local/national regulations regarding waste disposal

**14, Transport information**

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Note: -not classified by transport regulations

**15, Regulation information**

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Note: -no classification and labeling according to EP,USP, BP

**16, Biological activity:**

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Biological activity: -no biological activity has been defined for L-pantothenic acid ;  
only the D form has biological activity.  
-1.000g D-panthenol is equivalent to 1.068g D-pantothenol acid  
-1.000g D-panthenol is equivalent to 1.161g D-calcium pantothenate

**Declaration:**

The information on this material provided above is accurate with the good faith belief. However, this safety data sheet does not constitute a warranty of any kind, expressed or implied. It is the user's responsibility to implement policies for the safe handling and use of this product, and to determine the suitability of this information for their purpose. In the event of an adverse incident associated with this material, this safety data sheet is not intended to be a substitute for consultation with medical or remediation personnel.

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