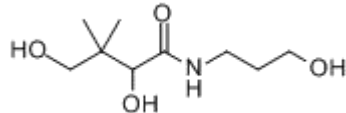


## Technical Data Sheet

### Basic information

Chemical name	D Panthenol	Formula	C <sub>9</sub> H <sub>19</sub> NO <sub>4</sub>
Synonyms	Dexpanthenol;D-Pantothenyl alcohol; Provitamin B	Chemical structure	
CAS.No.	81-13-0		
EINECS No.	201-327-3		
HS Code	29362400		
Molecular weight	205.25		

### Physical properties

Appearance	Colorless transparent viscous liquid
Solubility	Easily soluble in water, ethanol, methanol and propylene glycol, also soluble in chloroform and ether, slightly soluble in glycerin, insoluble in vegetable oil, mineral oil & fat.
Boiling point, °C	118-120
Density, g/l	1.20
Refractive index	1.495-1.502
Specific rotation, °	30.5

### Specification

Items	98% USP grade	
Appearance	Colorless transparent viscous liquid	
Identification	Positive reaction	
Assay,%	98.0-102.0	
Specific rotation,°	+29-+31.5	
Refractive index,20°C	1.495-1.502	
Water,%	≤1.0	
Aminopropanols,%	≤0.1	
Heavy metals,ppm	≤20	
Residue on ignition,%	≤0.1	
Items	75% solution	50% solution
Appearance	Colorless to pale yellow viscous clear liquid	Colorless to pale yellow viscous clear liquid
Assay,%	75-78.5	≥50
Aminopropanol,%	≤1.0	≤0.1
Heavy metals,ppm	≤20	≤20
Specific rotation,°	+29-+31.5	+29-+31.5
Water,%	≤25	≤50

## Application

Cosmetic filed	As humectant, to simulating the growth of epithelial cells, promote wound healing, anti inflammatory effect; In shampoo area, for lasting moisturizing function, prevent split and damaged hair, increase the density of the hair; In nail care, to improve the hydration of nails, nail flexibility;
Food & Feed filed	Used as a nutritional supplement and a fortifier;
Pharm. filed	As a vitamin B drugs, participate in the metabolism;

## Package

- 25kg/bag, In 20'ft, 8mt with pallets;
- 25kg/plastic drum for solution, In 20'ft, 8mt with pallets;



## Safety on transportation

It belongs to common goods, always refer to MSDS.

## Storage and handling

Keep tightly closed, store in a cool dry place.

Please refer to the Materials Safety Data Sheet (MSDS) for the handling methods.

*The information above is believed to be accurate and represents the best information currently available to us. However, In no event shall we be liable for any claims, losses, or damages of any third party resulting from its use.*

**Issue Date:** 1st,6,2017