

PRODUCT TECHNICAL DOSSIER

D-PANTHENOL (FEED ONLY)

Product Code:

P16182

Raw Material Full Name:

D-panthenol (Feed only)

This material is Feed Grade:

Feed additive

Vegan / Vegetarian Status:

Suitable for both

Limit/Range/Specification:

Min 98%

CAS Number:

81-13-0

EC/EINECS Number:

201-327-3

Molecular Formula for the raw material:

$C_9H_{19}NO_4$

Average Molecular weight:

205.25

Solubility in Water:

It is soluble in water

Solubility in Alcohol:

It is soluble in alcohol

Bulk Density:

Approx. 1.2 g/cm³ (25/4°C)

pH:

≤10.5



Residue on Ignition:

≤0.1%

Country of Origin:

China

Country of Origin of the Manufacture:

China

Base Source/Start Material:

Pantolactone

Origin of Product – Synthetic, Plant, Mineral, Animal, Fish or Fermented:

Synthetic

Material is:

Min 98% D-panthenol

Max 2% Water and impurity

Shelf Life from Date of Manufacture:

2 Years

Storage Conditions:

This material is to be stored in a tightly sealed bag/container and to be kept in a cool place away from moisture and direct sunlight.

Appearance (Fine/Crystals/Crystalline/Hygroscopic):

Viscous hygroscopic liquid

Colour:

Colourless or slightly yellowish

Flavour/Taste:

Tasteless

Odour:

Odourless



Microbiological Test

Total Viable Count:

Max 1000 cfu/g

Yeast & Moulds:

Max 100 cfu/g

E. coli:

Max 10 cfu/g

Salmonella:

Negative/25g

Heavy Metals

Lead (Pb):

Less than 3ppm

Cadmium (Cd):

Less than 1ppm

Mercury (Hg):

Less than 0.1 ppm

Arsenic (As):

Less than 1 ppm

Pharmacopeia Standard Used:

USP

There are no nuts in this recipe; however, we cannot guarantee that the raw materials entering the site are nut free.

Please note that surveillance testing may mean that not all the parameters stated on this specification are tested for every batch.



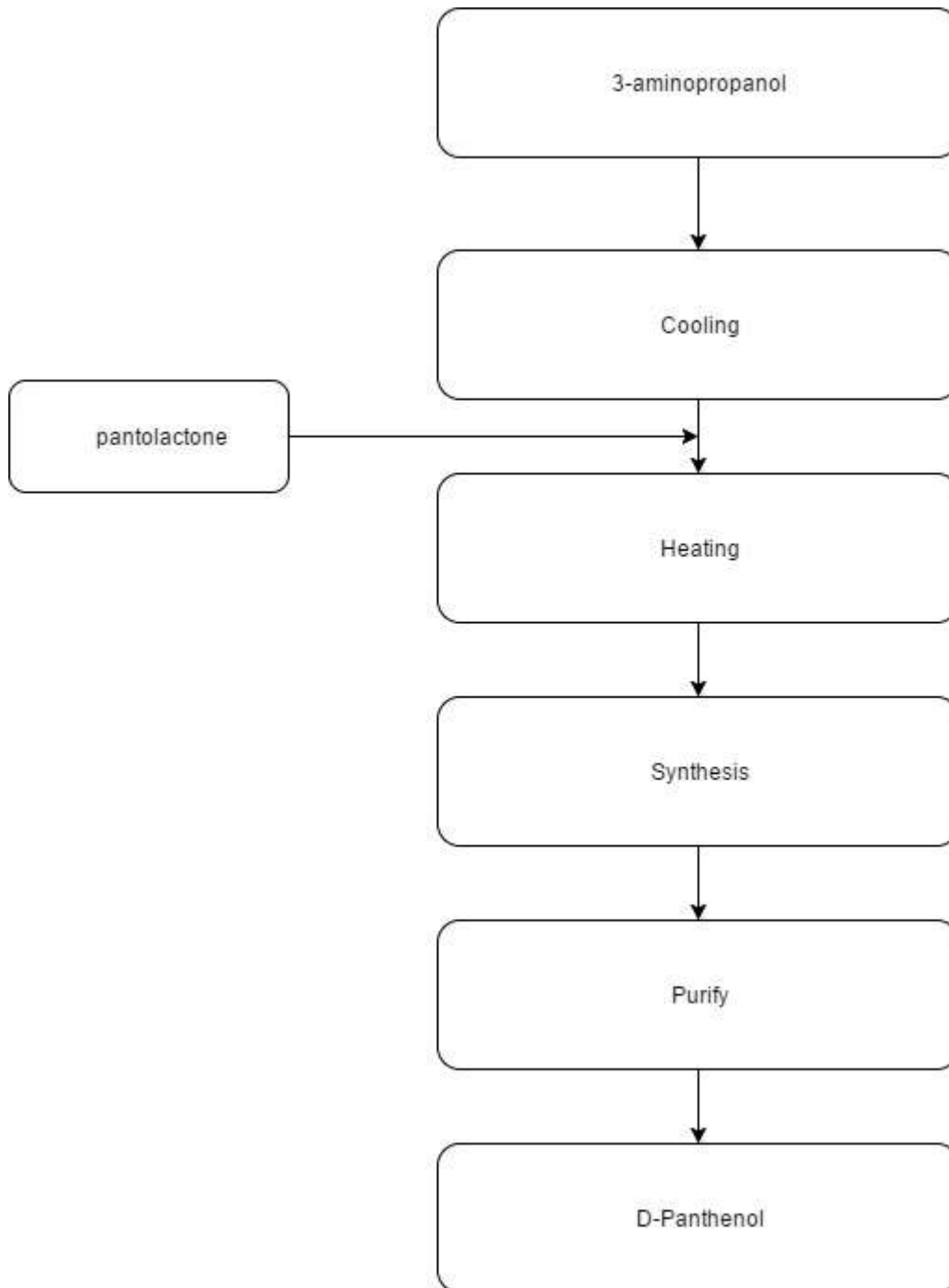
ALLERGENS	Product Contains YES/NO	Listed Item on Site at Manufacturer YES/NO	If YES, Please Comment
Peanuts and Peanut Derivatives (including possible cross contamination)	No	No	
Other Nut and Nut Derivatives <i>Almond (Amygdalus communis L.), Hazelnut (Corylus avellana), Walnut (Juglans regia), Cashew (Anacardium occidentale), Pecan nut (Carya illinoensis (Wangenh.) K. Koch), Brazil nut (Bertholletia excelsa), Pistachio nut (Pistacia vera), Macadamia nut and Queensland nut (Macadamia ternifolia)</i>	No	No	
Sesame Seeds and Sesame Seed Derivatives	No	No	
Other Seeds and Seed Derivatives (Poppy Seeds, Cotton Seeds, Sunflower Seeds)	No	No	
Milk and Milk Derivatives (including lactose)	No	No	
Egg and Egg Derivatives	No	No	
Cereals and Derivatives containing OR POTENTIALLY CONTAMINATED WITH Gluten <i>(wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barley grass)</i>	No	No	
Soya and Soya Derivatives	No	No	
Lupin and Lupin Derivatives	No	No	
Mustard and Mustard Derivatives	No	No	
Celery or Celery Derivatives (including Celeriac)	No	No	
Fish and Fish Derivatives	No	No	
Molluscs and their Derivatives	No	No	
Crustaceans and their Derivatives	No	No	
Sulphur Dioxide and Sulphites (E220, E228) at levels > 10mg/kg or 10mg/litre	No	No	



ADDITIVES / CONTAMINANTS / DIETARY REQUIREMENTS	Product Contains YES/NO	Listed Item on Site at Manufacturer YES/NO	If YES, Please Comment
Additives	No	No	
Antioxidants	No	No	
Ethylene Oxide	No	No	
Gelatine	No	No	
Flavourings (Artificial / Nature Identical / Natural / Smoked)	No	No	
Maize / Corn and any Derivatives	No	No	
Legumes / Pulses	No	No	
Rice and Rice Derivatives	No	No	
Added Salt	No	No	
Added Sugar / artificial or natural sweeteners	No	No	
Aspartame	No	No	
BHA / BHT (E320 / E321)	No	No	
Caffeine	No	No	
Colours (Artificial / Nature Identical / Natural / Smoked)	No	No	
Dextrose	No	No	
Dioxins	No	No	
MSG (Added and Naturally Occurring E621) or Glutamates (E620 to E625)	No	No	
Nucleotides (E627, E630, E631, E635)	No	No	
Polyols (sugar alcohols)	No	No	
Benzoates (E210 / E219)	No	No	
Sorbic Acid (E200, E203)	No	No	
Any other Preservatives	No	No	
Ethanol	No	No	
Honey	No	No	
Lactose	No	No	
Yeast and Yeast Derivatives	No	No	
All Animal Products (Beef, Pork, Poultry or other) and Derivatives (which may include growth/yield hormones, antibiotics etc.)	No	No	
Bovine Products or Derivatives (which may include growth/yield hormones, antibiotics etc.)	No	No	



PRODUCTION FLOW CHART



CONFIRMATION OF BSE/TSE STATUS

This is to certify that this product complies with all relevant current UK and EU Legislative requirements in regard to Transmissible Spongiform Encephalopathies (TSE) and Bovine Spongiform Encephalopathy (BSE) for human food, and so is free of TSE/BSE.

This is also to certify that, during the course of their manufacture, the above-mentioned product did not come into contact with any materials, which could be derived from TSE/BSE risk materials.

CONFIRMATION OF GM STATUS

This is to certify that this product is not manufactured from GM raw materials and is therefore not subject to labelling under regulations 1829/2003/EC and 1830/2003/EC.

CONFIRMATION OF NON IRRADIATION STATUS

This is to certify that this product, whole or in part, has not been subjected to Ionising Radiation as per European Directives 1999/3/EC.

CONFIRMATION OF NANDROLONE STATUS

This is to certify that this product, whole or in part, has not come into contact with Nandrolone or any of its precursors in any way.

CONFIRMATION OF IOC PRODUCT STATUS

This is to certify that this product, whole or in part, has not come into contact with any product/s, which is banned by the IOC (International Olympics Committee) and or WADA.

CONFIRMATION OF ANIMAL TESTING STATUS

This is to certify that all the products sold by Cambridge Commodities have not been tested on animals in any part of its manufacture in accordance with regulation 86/609/EEC.

CONFIRMATION OF PESTICIDES STATUS

This is to certify that the above-mentioned product complies with the regulation (EC) No.396/2005 of 23rd February 2005 and commission Regulation (EU) No. 559/2011 of 7th June 2011 amending annexes II and III of the above Regulation.

CONFIRMATION OF NANOPARTICLE STATUS

This is to certify that unless otherwise stated, the above-mentioned product is free of nanoparticles. Commission Recommendation 2011/696/EU, defines as follows: "'Nanomaterial' means a natural, incidental or manufactured material containing particles, in an unbound state or as an aggregate or as an agglomerate and where, for 50 % or more of the particles in the number size distribution, one or more external dimensions is in the size range 1 nm - 100 nm".



MATERIAL SAFETY DATA SHEET

Section 1 Identification of the Substance/Mixture and of the Company/Undertaking

Product name: D-Panthenol
 P Code: P16182
 Company: Cambridge Commodities Limited
 Lancaster Way, Ely, Cambridgeshire, CB6 3NX
 Tel: 01353 667258. Email: qa@c-c-l.com

Section 2 Hazards Identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

2.2. Label elements

Symbols/Pictograms

None

Signal word

None

Hazard Statements

Not applicable

Precautionary Statements

Not applicable

2.3. Other hazards

No information available

Section 3 Composition/Information on Ingredients

Chemical Name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Dexpanthenol	201-327-3	81-13-0	98.0-102.0	Not classified
Water	231-791-2	7732-18-5	≤1	Not classified
Propanolamine	205-864-4	156-87-6	≤1	Not classified



Section 4 Emergency and First Aid Measures

4.1. Description of first aid measures

General advice

If symptoms persist, call a physician.

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash contaminated clothing before reuse. If skin irritation persists, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Ingestion

Rinse mouth Get medical attention. Never give anything by mouth to an unconscious person

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

No information available

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

Treat symptomatically.

Section 5 Fire-fighting measures

5.1. Extinguishing media

Suitable extinguishing media

Water spray (fog). Extinguishing powder. Alcohol resistant foam. Dry chemical.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating and toxic gases and vapours

5.3. Advice for firefighters

Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.



Section 6 Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas
Ensure adequate ventilation, especially in confined areas
Remove all sources of ignition
Avoid contact with skin, eyes and inhalation of vapours
Use personal protection recommended in Section 8

6.2. Environmental precautions

Local authorities should be advised if significant spillages cannot be contained
Prevent entry into waterways, sewers, basements or confined areas

6.3. Methods and material for containment and cleaning up

Contain and collect spillage with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations.

Section 7 Handling and Storage

7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice
Ensure adequate ventilation, especially in confined areas
Avoid contact with skin, eyes or clothing
Wash contaminated clothing before reuse
Take precautionary measures against static discharges
Do not breathe dust/fume/gas/mist/vapours/spray
Do not eat, drink or smoke when using this product
Wash thoroughly after handling
Use personal protection recommended in Section 8

7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place
Keep away from heat
Keep at a temperature not exceeding 25 °C
Store in accordance with local regulations



Section 8 Exposure Controls/Personal Protection

8.2. Exposure controls

Engineering Controls

Use with local exhaust ventilation. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles)

Hand Protection

Wear protective nitrile rubber gloves Ensure that the breakthrough time of the glove material is not exceeded. Refer to glove supplier for information on breakthrough time for specific gloves

Skin and body protection

Suitable protective clothing

Respiratory protection

No special technical protective measures are necessary

Environmental exposure controls

Do not allow into any sewer, on the ground or into any body of water



Section 9 Physical and Chemical Properties

9.1. Information on basic physical and chemical properties	
Appearance	Liquid
Colour	Colourless light yellow
Odour	Odourless
Odour Threshold	Not determined
pH	≤10.5
Melting point/freezing point	-25°C
Boiling point / boiling range	118-120°C
Flash point	150.5°C
Evaporation rate	Not determined
Flammability (solid, gas)	Not determined
Flammability Limit in Air	Not determined
Vapour Pressure	0.000056 Pa(25 °C)
Vapour density	Not determined
Density	1.2 g/cm ³ (25/4°C)
Relative density	Not determined
Specific gravity	Not determined
Water solubility	> 509 g/L Soluble in water
Partition coefficient (LogPow)	log Pow=-1.06
Auto ignition temperature	Not determined
Decomposition temperature	Not determined
Kinematic viscosity	Not determined
Dynamic viscosity	Not determined
Explosive properties	Not an explosive
Oxidizing properties	Not determined

Section 10 Stability and Reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

None under normal processing.

10.4. Conditions to avoid

Heat, flames and sparks.

10.5. Incompatible materials

Strong oxidizing agents. Strong acids. Strong bases.

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success starts with the finest ingredients...

10.6. Hazardous decomposition products

None under normal use conditions.

Section 11 Toxicological Information

11.1. Information on toxicological effects			
Acute toxicity			
Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Dexpanthenol(CAS# 81-13-0)	> 10000 mg/kg bw	> 2000 mg/kg bw	-
Water (CAS #: 7732-18-5)	> 89800 mg/kg (Rat)	-	-
Propranolamine (CAS #: 156-87-6)	= 2830 µL/kg (Rat)	= 1250 µL/kg (Rabbit)	-
Skin corrosion/irritation Non-irritating to the skin.			
Serious eye damage/eye irritation No eye irritation.			
Sensitization No sensitization responses were observed.			
Germ cell mutagenicity No information available.			
Carcinogenicity Not classified			
Reproductive toxicity No information available.			
STOT - single exposure No information available.			
STOT - repeated exposure No information available.			
Aspiration hazard No information available.			



Section 12 Ecological Information

12.1. Toxicity			
Chemical Name	Algae/aquatic plants EC50	Fish	Crustacea
Dexpanthenol (CAS #: 81-13-0)	> 100 mg/L/72 h	NOEC> 1000 mg/L LC50> 1000 mg/L/96h	EC50 > 100 mg/L/48 h NOEC=100 mg/L/48 h
12.2. Persistence and degradability			
No information available.			
12.3. Bioaccumulative potential			
No information available.			
12.4. Mobility in soil			
No information available			
12.5. Results of PBT and vPvB assessment			
The substance is not PBT / vPvB			
12.6. Other adverse effects			

Section 13 Disposal Considerations

13.1. Waste treatment methods

Waste from residues/unused products

Disposal should be in accordance with applicable regional, national and local laws and regulations

Contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations

Section 14 Transport Information

14.1 UN Number

Not regulated

14.2 Proper shipping name

Not regulated

14.3 Hazard Class

Not regulated

14.4 Packing Group

Not regulated

14.5 Environmental hazards

Not applicable

14.6 Special precautions

No information available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable



Section 15 Regulatory Information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture								
European Union								
Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work								
Take note of Directive 94/33/EC on the protection of young people at work								
Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work								
International Inventories								
Component	TSC A	DSL/N DSL	EINECS/E LINCS	ENCS	IECSC	KECL	PICCS	AICS
Dexpanthenol 81-13-0	X	X	X	X	X	X	X	X
Water 7732-18-5	X	X	X	-	X	X	X	X
Propranolamine 156-87-6	X	X	X	X	X	X	X	X
"- " Not Listed								
"X" Listed								

Section 16 Other Information

This advice is given by Cambridge Commodities Ltd who accepts no legal liability for it. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

Individuals working with chemicals should consider all chemicals to be potentially hazardous even if their individual hazards may be uncharacterised or unknown.

This Information provided in this document is subject to change and the batch specific Certificate of Analysis should always be referenced.

To be used as per local legislation.



Change History

Version	Change	Customer Notification required Yes / No
1	First Issue	N/A

Document Approval

Originator Job Title	QC Technician	Approver Job Title	Quality Specialist
<u>Emma Dane</u> <small>Emma Dane (Jun 13, 2017)</small>		<u>Casey White</u> <small>Casey White (Jun 13, 2017)</small>	











P16182-D-Panthenol-Technical Dossier

Adobe Sign Document History

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