

**PRODUCT TECHNICAL DOSSIER**

**D-CALCIUM PANTOTHENATE**

**Product Code:**

P10826

**Raw Material Full Name:**

D-Calcium Pantothenate

**Limit/Range/Specification:**

98.0 - 101.0%

**Means of Identification:**

Complies to tests B,C and D.

**CAS Number:**

137-08-6

**EC/EINECS Number:**

205-278-9

**Molecular Formula for the raw material:**

$C_{18}H_{32}CaN_2O_{10}$

**Average Molecular weight:**

476.5

**pH:**

6.8 - 8.0

**Loss on Drying:**

Max 3%

**Solubility:**

Soluble in water

**Mesh size:**

40 Mesh

**Country of Origin:**

China



**Solvents used:**

Methanol

**Shelf Life from Date of Manufacture:**

Min 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):**

Powder

**Colour:**

White or almost white

**Flavour/Taste:**

Characteristic

**Odour:**

Characteristic

**Microbiological Test**

**Total Viable Count:**

Max 1000cfu/g

**Yeast & Moulds:**

Max 200cfu/g

**E. coli:**

<10cfu/g

**Salmonella:**

Negative/25g

**Heavy Metals**

**Lead (Pb):**

Max 3ppm

**Cadmium (Cd):**

Max 1ppm



**Mercury (Hg):**

Max 0.1ppm

**Arsenic (As):**

Max 1ppm

**Pharmacopeia Standard Used:**

EP

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	
Milk and Milk Derivatives (including lactose)	No	No	
Egg and Egg Derivatives	No	No	
Cereals and Derivatives containing OR POTENTIALLY CONTAMINATED WITH Gluten (wheat, wheatgrass, faro, freekeh, spelt, kamut, rye, oats, barley, barley grass)	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	

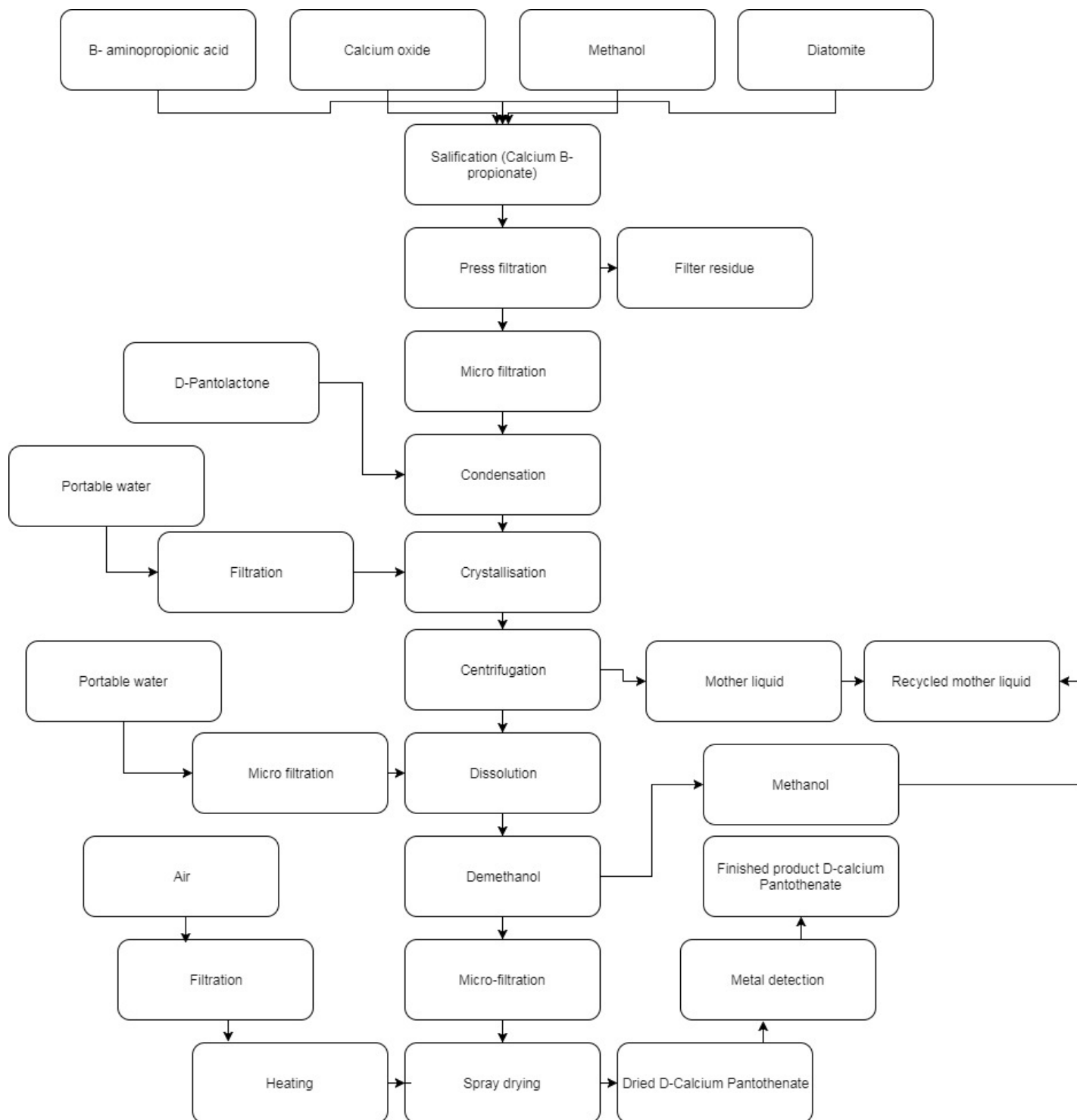
There are no nuts in this recipe; however, we cannot guarantee that the raw materials entering the site are nut free.

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

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

**P10826 Vitamin B5 (Calcium D-Pantothenate)(40 Mesh)**
**SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING**
**1.1. Product Identifier**

Product name	Vitamin B5 (Calcium D-Pantothenate)(40 Mesh)
Chemical Name	D-Calcium Pantothenate
Other means of identification	P10826
Molecular Formula	C <sub>18</sub> H <sub>32</sub> CaN <sub>2</sub> O <sub>10</sub>
CAS number	137-08-6
Molar weight	476.5

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

Relevant identified uses	Use according to manufacturer's directions.
Uses advised against	Not Applicable

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

Registered company name	Cambridge Commodities
Address	Lancaster Way Business Park Ely Cambridgeshire CB6 3NX United Kingdom
Telephone	+44 1353 667258
Fax	+44 1353 667289
Website	https://www.c-c-l.com/
Email	info@c-c-l.com

**1.4. Emergency telephone number**

Association / Organisation	Not Available
Emergency telephone numbers	Not Available
Other emergency telephone numbers	Not available

**SECTION 2 HAZARDS IDENTIFICATION**
**2.1. Classification of the substance or mixture**

Classification according to regulation (EC) No 1272/2008 [CLP] [1]	Not Applicable
--	----------------

Flammability	0	0 = Minimum
Toxicity	0	1 = Low
Body Contact	0	2 = Moderate
Reactivity	0 Chronic 0	3 = High
		4 = Extreme

**2.2. Label elements**

Hazard pictogram(s)	Not Applicable
SIGNAL WORD	<b>NOT APPLICABLE</b>

**Hazard statement(s)**

Not Applicable

Product Code: P10826

Version: 4

Page 7 of 17


*success starts with the finest ingredients...*

**Supplementary statement(s)**

Not Applicable

**Precautionary statement(s) Prevention**

Not Applicable

**Precautionary statement(s) Response**

Not Applicable

**Precautionary statement(s) Storage**

Not Applicable

**Precautionary statement(s) Disposal**

Not Applicable

**2.3. Other hazards**

REACH - Art.57-59: The mixture does not contain Substances of Very High Concern (SVHC) at the SDS print date.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**
**3.1. Substances**

See 'Composition on Ingredients' in Section 3.2

**3.2. Mixtures**

1.CAS No 2.EC No 3.Index No 4.REACH No	%[weight]	Name	Classification according to regulation (EC) No 1272/2008 [CLP]
1.137-08-6 2.205-278-9 3.Not Available 4.Not Available	100	D-pantothenic acid, calcium salt	Not Applicable
<b>Legend:</b> 1. Classified by Chemwatch; 2. Classification drawn from EC Directive 67/548/EEC - Annex I ; 3. Classification drawn from EC Directive 1272/2008 - Annex VI 4. Classification drawn from C&L			

**SECTION 4 FIRST AID MEASURES**
**4.1. Description of first aid measures**

<b>Eye Contact</b>	Generally not applicable.
<b>Skin Contact</b>	Generally not applicable.
<b>Inhalation</b>	If dust is inhaled, remove from contaminated area. Encourage patient to blow nose to ensure clear passage of breathing. If irritation or discomfort persists seek medical attention. Generally not applicable.
<b>Ingestion</b>	Generally not applicable.

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

See Section 11

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

Treat symptomatically

**SECTION 5 FIREFIGHTING MEASURES**
**5.1. Extinguishing media**

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).
- Carbon dioxide.
- Water spray or fog - Large fires only.

Product Code: P10826

Version: 4

Page 8 of 17



success starts with the finest ingredients...



## 5.2. Special hazards arising from the substrate or mixture

<b>Fire Incompatibility</b>	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result
-----------------------------	--

## 5.3. Advice for firefighters

<b>Fire Fighting</b>	<p>Alert Fire Brigade and tell them location and nature of hazard.</p> <p>Wear breathing apparatus plus protective gloves.</p> <p>Prevent, by any means available, spillage from entering drains or water courses.</p> <p>Use water delivered as a fine spray to control fire and cool adjacent area.</p> <p>DO NOT approach containers suspected to be hot.</p> <p>Cool fire exposed containers with water spray from a protected location.</p> <p>If safe to do so, remove containers from path of fire.</p> <p>Equipment should be thoroughly decontaminated after use.</p>
<b>Fire/Explosion Hazard</b>	<p>Slight hazard when exposed to heat, flame and oxidisers.</p> <p>Combustible.</p> <p>Will burn if ignited.</p> <p>Combustion products include:</p> <ul style="list-style-type: none"> <li>• carbon monoxide (CO)</li> <li>• carbon dioxide (CO<sub>2</sub>)</li> <li>• nitrogen oxides (NO<sub>x</sub>)</li> </ul> <p>other pyrolysis products typical of burning organic material.</p> <p>Articles and manufactured articles may constitute a fire hazard where polymers form their outer layers or where combustible packaging remains in place.</p> <p>Certain substances, found throughout their construction, may degrade or become volatile when heated to high temperatures. This may create a secondary hazard.</p>

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

See section 8

### 6.2. Environmental precautions

See section 12

### 6.3. Methods and material for containment and cleaning up

<b>Minor Spills</b>	<p>Clean up all spills immediately.</p> <p>Secure load if safe to do so.</p> <p>Bundle/collect recoverable product.</p> <p>Collect remaining material in containers with covers for disposal.</p>
<b>Major Spills</b>	<p>Minor hazard.</p> <p>Clear area of personnel.</p> <p>Alert Fire Brigade and tell them location and nature of hazard.</p> <p>Wear physical protective gloves e.g. Leather.</p> <p>Contain spill/secure load if safe to do so.</p> <p>Bundle/collect recoverable product and label for recycling.</p> <p>Collect remaining product and place in appropriate containers for disposal.</p> <p>Clean up/sweep up area.</p> <p>Water may be required.</p>

### 6.4. Reference to other sections

Personal Protective Equipment advice is contained in Section 8 of the SDS.

## SECTION 7 HANDLING AND STORAGE

### 7.1. Precautions for safe handling

<b>Safe handling</b>	<p>Limit all unnecessary personal contact.</p> <p>Wear protective clothing when risk of exposure occurs.</p> <p>Use in a well-ventilated area.</p> <p>Avoid contact with incompatible materials.</p> <p>When handling, <b>DO NOT eat, drink or smoke.</b></p> <p>Keep containers securely sealed when not in use.</p> <p>Avoid physical damage to containers.</p> <p>Always wash hands with soap and water after handling.</p> <p>Work clothes should be laundered separately.</p> <p>Use good occupational work practice.</p> <p>Observe manufacturer's storage and handling recommendations contained within this SDS.</p> <p>Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</p>
<b>Fire and explosion protection</b>	See section 5
<b>Other information</b>	Store away from incompatible materials.

### 7.2. Conditions for safe storage, including any incompatibilities

<b>Suitable container</b>	<p>Generally packaging as originally supplied with the article or manufactured item is sufficient to protect against physical hazards.</p> <p>If repackaging is required ensure the article is intact and does not show signs of wear. As far as is practicably possible, reuse the original packaging or something providing a similar level of protection to both the article and the handler.</p>
<b>Storage incompatibility</b>	<p>Avoid contamination of water, foodstuffs, feed or seed.</p> <p>Avoid reaction with oxidising agents</p>

### 7.3. Specific end use(s)

See section 1.2

## SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

### 8.1. Control parameters

#### DERIVED NO EFFECT LEVEL (DNEL)

Not Available

#### PREDICTED NO EFFECT LEVEL (PNEC)

Not Available

#### OCCUPATIONAL EXPOSURE LIMITS (OEL)

Not Available




#### INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Not Available	Not Available	Not Available	Not Available	Not Available	Not Available	Not Available

#### EMERGENCY LIMITS

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
Vitamin B5 (Calcium D-Pantothenate)(40 Mesh)	Not Available	Not Available	Not Available	Not Available
Ingredient	Original IDLH	Revised IDLH		
D-pantothenic acid, calcium salt	Not Available	Not Available		

### 8.2. Exposure controls

<b>8.2.1. Appropriate engineering controls</b>	<p>Articles or manufactured items, in their original condition, generally don't require engineering controls during handling or in normal use. Exceptions may arise following extensive use and subsequent wear, during recycling or disposal operations where substances, found in the article, may be released to the environment.</p>
<b>8.2.2. Personal protection</b>	  

Product Code: P10826

Version: 4

Page 10 of 17



success starts with the finest ingredients...

Registered Office: 203 Lancaster Way Business Park, Ely, Cambridgeshire, CB6 3NX, UK Registered in England No: 3590758 VAT No: GB 711 6598 32

Eye and face protection	<p>Safety glasses with side shields. Chemical goggles.</p> <p>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</p> <p>No special equipment for minor exposure i.e. when handling small quantities.</p> <p>OTHERWISE:</p> <p>Safety glasses with side shields. Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</p> <p>Safety glasses with side shields Chemical goggles.</p> <p>Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</p>
	<p>thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]</p>
Skin protection	See Hand protection below
Hands/feet protection	Wear general protective gloves, eg. light weight rubber gloves.
Body protection	See Other protection below
Other protection	<p>No special equipment needed when handling small quantities.</p> <p>OTHERWISE:</p> <p>Overalls. Barrier cream. Eyewash unit.</p>
Thermal hazards	Not Available

#### Respiratory protection

Respiratory protection not normally required due to the physical form of the product.

### 8.2.3. Environmental exposure controls

See section 12

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Not Available		
Physical state	article	Relative density (Water = 1)	Not Available
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	Not Available	Decomposition temperature	Not Available
Melting point/freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point/boiling range	Not Available	Molecular weight (g/mol)	Not Available
Flash point (°C)	Not Available	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available

Product Code: P10826

Version: 4

Page 11 of 17



success starts with the finest ingredients...

Registered Office: 203 Lancaster Way Business Park, Ely, Cambridgeshire, CB6 3NX, UK Registered in England No: 3590758 VAT No: GB 711 6598 32

<b>Flammability</b>	Not Available	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	Not Available	<b>Surface Tension(dyn/)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	Not Available	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (kPa)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility in water (g/L)</b>	Immiscible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	Not Available	<b>VOC g/L</b>	Not Available

## 9.2. Other information

Not Available

## SECTION 10 STABILITY AND REACTIVITY

<b>10.1.Reactivity</b>	See section 7.2
<b>10.2. Chemical stability</b>	Product is considered stable and hazardous polymerisation will not occur.
<b>10.3. Possibility of hazardous reactions</b>	See section 7.2
<b>10.4. Conditions to avoid</b>	See section 7.2
<b>10.5. Incompatible materials</b>	See section 7.2
<b>10.6. Hazardous decomposition products</b>	See section 5.3

## SECTION 11 TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

<b>Inhaled</b>	The material is not thought to produce adverse health effects or irritation of the respiratory tract (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Not normally a hazard due to non-volatile nature of product
<b>Ingestion</b>	Pantothenic Acid, also known as vitamin B5, is one of eight vitamins that comprise the B complex. Pantothenic acid is part of coenzyme A (CoA), an essential metabolite the body uses to produce energy from food (fats, carbohydrates and proteins). The FDA's reference daily intakes (RDI) for Pantothenic acid is 10 mg. Toxicity of pantothenic acid is unlikely. In fact, no Tolerable Upper Level Intake (UL) has been established for the vitamin. Large doses of the vitamin, when ingested, may only yield mild intestinal distress and diarrhea at worst. However, a very large amount of vitamin B5 (e.g: 5 - 9 gram) is widely known to cause nausea, headaches, diarrhea and a lack of energy. Other adverse effects include oedema, severe fatigue, joint pains, reduced protein metabolism, gastrointestinal symptoms, raised VLDL triglycerides, dehydration, depression The lack of energy is believed to be the depleted vitamin B12 (cobalamin), as massive amounts of vitamin B5 will deplete other vitamin B components. Restitution for this loss with an additional vitamin B complex may be necessary to compensate the lost vitamin B elements There are no adverse reactions known following parenteral or topical application of the vitamin. Reported overdose of 10 to 20 gm calcium pantothenic acid produce diarrhea and failure of the body to metabolise other B vitamins. The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
<b>Skin Contact</b>	The material is not thought to produce adverse health effects or skin irritation following contact (as classified by EC Directives using animal models). Nevertheless, good hygiene practice requires that exposure be kept to a minimum and that suitable gloves be used in an occupational setting.
<b>Eye</b>	Although the material is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
<b>Chronic</b>	Long-term exposure to the product is not thought to produce chronic effects adverse to the health (as classified by EC Directives using animal models); nevertheless exposure by all routes should be minimised as a matter of course.

<b>Vitamin B5 (Calcium D-Pantothenate)(40 Mesh)</b>	TOXICITY Not Available	IRRITATION Not Available
<b>D-Pantothenic Acid, Calcium Salt</b>	TOXICITY Oral (rat) LD50: >10000 mg/kg[2]	IRRITATION Not Available

Product Code: P10826

Version: 4











Page 12 of 17



success starts with the finest ingredients...

Registered Office: 203 Lancaster Way Business Park, Ely, Cambridgeshire, CB6 3NX, UK Registered in England No: 3590758 VAT No: GB 711 6598 32

<b>Legend:</b>	1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances
<b>D-PANTOTHENIC ACID, CALCIUM SALT</b>	Somnolence, respiratory tract changes recorded.

<b>Acute Toxicity</b>		<b>Carcinogenicity</b>	
<b>Skin Irritation/Corrosion</b>		<b>Reproductivity</b>	
<b>Serious Eye Damage/Irritation</b>		<b>STOT - Single Exposure</b>	
<b>Respiratory or Skin sensitisation</b>		<b>STOT - Repeated Exposure</b>	
<b>Mutagenicity</b>		<b>Aspiration Hazard</b>	

## SECTION 12 ECOLOGICAL INFORMATION

### 12.1. Toxicity

<b>Vitamin B5 (Calcium D-Pantothenate)(40 Mesh)</b>	<b>ENDPOINT</b>	<b>TEST DURATION (HR)</b>	<b>SPECIES</b>	<b>VALUE</b>	<b>SOURCE</b>
	Not Available	Not Available	Not Available	Not Available	Not Available
<b>D-pantothenic acid, calcium salt</b>	<b>ENDPOINT</b>	<b>TEST DURATION (HR)</b>	<b>SPECIES</b>	<b>VALUE</b>	<b>SOURCE</b>
	Not Available	Not Available	Not Available	Not Available	Not Available
<b>Legend:</b>	Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 (QSAR) - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data				

### 12.2. Persistence and degradability

<b>Ingredient</b>	<b>Persistence: Water/Soil</b>	<b>Persistence: Air</b>
D-pantothenic acid, calcium salt	LOW	LOW

### 12.3. Bioaccumulative potential

<b>Ingredient</b>	<b>Bioaccumulation</b>
D-pantothenic acid, calcium salt	LOW (LogKOW = -1.6942)

### 12.4. Mobility in soil

<b>Ingredient</b>	<b>Mobility</b>
D-pantothenic acid, calcium salt	LOW (KOC = 10)

### 12.5. Results of PBT and vPvB assessment

	<b>P</b>	<b>B</b>	<b>T</b>
Relevant available data	Not Available	Not Available	Not Available
PBT Criteria fulfilled?	Not Available	Not Available	Not Available

### 12.6. Other adverse effects

No data available

## SECTION 13 DISPOSAL CONSIDERATIONS

### Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> <li>Recycle wherever possible or consult manufacturer for recycling options.</li> <li>Consult State Land Waste Management Authority for disposal.</li> </ul> <p><b>DO NOT allow wash water from cleaning or process equipment to enter drains.</b></p> <p>It may be necessary to collect all wash water for treatment before disposal.</p> <p>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first. Where in doubt contact the responsible authority.</p>
	Recycle wherever possible or consult manufacturer for recycling options.
	Consult State Land Waste Authority for disposal.
	Bury or incinerate residue at an approved site.
Waste treatment options	Not Available
Sewage disposal options	Not Available

## SECTION 14 TRANSPORT INFORMATION

### Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

### Land transport (ADR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	Class	Not Applicable
	Subrisk	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Hazard identification (Kemler)	Not Applicable
	Classification code	Not Applicable
	Hazard Label	Not Applicable
	Special provisions	Not Applicable
	Limited quantity	Not Applicable

### Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	ICAO/IATA Class	Not Applicable
	ICAO / IATA Subrisk	Not Applicable
	ERG Code	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Special provisions	Not Applicable
	Cargo Only Packing Instructions	Not Applicable
	Cargo Only Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Packing Instructions	Not Applicable
	Passenger and Cargo Maximum Qty / Pack	Not Applicable
	Passenger and Cargo Limited Quantity Packing Instructions	Not Applicable
	Passenger and Cargo Limited Maximum Qty / Pack	Not Applicable



**Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	IMDG Class	Not Applicable
	IMDG Subrisk	Not Applicable
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	EMS Number	Not Applicable
	Special provisions	Not Applicable
	Limited Quantities	Not Applicable

**Inland waterways transport (ADN): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS**

14.1. UN number	Not Applicable	
14.2. UN proper shipping name	Not Applicable	
14.3. Transport hazard class(es)	Not Applicable	
14.4. Packing group	Not Applicable	
14.5. Environmental hazard	Not Applicable	
14.6. Special precautions for user	Classification code	Not Applicable
	Special provisions	Not Applicable
	Limited quantity	Not Applicable
	Equipment required	Not Applicable
	Fire cones number	Not Applicable

14.7. Transport in bulk according to Annex II of MARPOL and the IBC code  
Not Applicable

**SECTION 15 REGULATORY INFORMATION**
**15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture**
**D--PANTOTHENIC ACID, CALCIUM SALT(137-08-6) IS FOUND ON THE FOLLOWING REGULATORY LISTS**

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

European Union - European Inventory of Existing Commercial Chemical Substances (EINECS) (English)

This safety data sheet is in compliance with the following EU legislation and its adaptations - as far as applicable - : 98/24/EC, 92/85/EC, 94/33/EC, 91/689/EEC, 1999/13/EC, Commission Regulation (EU) 2015/830, Regulation (EC) No 1272/2008 and their amendments

**15.2. Chemical safety assessment**

For further information please look at the Chemical Safety Assessment and Exposure Scenarios prepared by your Supply Chain if available.

**ECHA SUMMARY**

Ingredient	CAS number	Index No	ECHA Dossier
D-pantothenic acid, calcium salt	137-08-6	Not Available	Not Available
Harmonisation (C&L Inventory)	Hazard Class and Category Code(s)	Pictograms Signal Word Code(s)	Hazard Statement Code(s)
1	Not Classified	Not Available	Not Available
2	Not Classified	Not Available	Not Available

Harmonisation Code 1 = The most prevalent classification. Harmonisation Code 2 = The most severe classification.

National Inventory	Status
Australia - AICS	Y
Canada - DSL	Y
Canada - NDSL	N (D-pantothenic acid, calcium salt)

Product Code: P10826

Version: 4

Page 15 of 17



success starts with the finest ingredients...

Registered Office: 203 Lancaster Way Business Park, Ely, Cambridgeshire, CB6 3NX, UK Registered in England No: 3590758 VAT No: GB 711 6598 32



China - IECSC	Y
Europe - EINEC / ELINCS / NLP	Y
Japan - ENCS	Y
Korea - KECI	Y
New Zealand - NZIoC	Y
Philippines - PICCS	Y
USA - TSCA	Y
<b>Legend:</b>	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

## SECTION 16 OTHER INFORMATION

### Full text Risk and Hazard codes

Not Available	Not Available
---------------	---------------

### Other information

#### Ingredients with multiple cas numbers

Name	CAS No
D-pantothenic acid, calcium salt	137-08-6, 63409-48-3, 331748-07-3, 305808-23-5, 7693-17-6

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

For detailed advice on Personal Protective Equipment, refer to the following EU CEN Standards

EN 166 Personal eye-protection

EN 340 Protective clothing

EN 374 Protective gloves against chemicals and micro-organisms

EN 13832 Footwear protecting against chemicals

EN 133 Respiratory protective devices

Definitions and abbreviations

PC – TWA: Permissible Concentration-Time Weighted Average PC

– STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit.

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level TLV: Threshold Limit Value

LOD: Limit Of Detection

OTV: Odour Threshold Value

BCF: BioConcentration Factors

BEI: Biological Exposure Index

Powered by AuthoriTe, from Chemwatch.

The Information provided in this document is subject to change and the batch specific certificate of analysis should always be referenced.






The 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
2	Added additives information table.	No
3	Added solubility information and mesh size Added MSDS.	No
4	Added Pharmacopeia	No

### Document Approval

Originator Job Title	QC Technician	Approver Job Title	Quality Specialist
<i>Alan Feetham</i>		 Shannon McKenna (Jan 16, 2018)	










# P10826-D-Calcium Pantothenate-Technical Dossier v4

Adobe Sign Document History

01/16/2018

Created:	01/16/2018
By:	Alan Feetham (alan.feetham@c-c-l.com)
Status:	Signed
Transaction ID:	CBJCHBCAABAATsrBRImSr-gR0fAb-ccD0TMVLPXKTA5V

## "P10826-D-Calcium Pantothenate-Technical Dossier v4" History

-  Document uploaded by Alan Feetham (alan.feetham@c-c-l.com) from Acrobat  
01/16/2018 - 4:24:31 AM PST - IP address: 81.145.42.226
-  Document e-signed by Alan Feetham (alan.feetham@c-c-l.com)  
Signature Date: 01/16/2018 - 4:25:20 AM PST - Time Source: server- IP address: 81.145.42.226
-  Document emailed to Shannon McKenna (shannon.mckenna@c-c-l.com) for signature  
01/16/2018 - 4:25:21 AM PST
-  Document viewed by Shannon McKenna (shannon.mckenna@c-c-l.com)  
01/16/2018 - 5:44:08 AM PST - IP address: 185.123.254.27
-  Document e-signed by Shannon McKenna (shannon.mckenna@c-c-l.com)  
Signature Date: 01/16/2018 - 5:44:43 AM PST - Time Source: server- IP address: 81.145.42.226