SECTION-1: Identification of the substance / mixture and the company / undertaking

Catalogue Number	CS-T-38683
Product Name	Pantothenic Acid
CAS No.	79-83-4
Category	API
Synonyms	(R)-N-(2,4-Dihydroxy-3,3-dimethyl-1-oxobutyl)-β-alanine,Vitamin B5
Brand	Clearsynth Labs Ltd.
Identified uses	Laboratory Chemicals
Uses advised against	Not available
Company	Clearsynth Labs Ltd. Mumbai, India
Emergency Phone #	+91-22-245045900
REACH No.	Not available

SECTION 2: Hazards identification

Disclaimer: This is sample MSDS. Please email **sales@clearsynth.com** for more details.

2.1 Classification of the substance or mixture-Regulation (EC) No 1272/2008:

Not available

2.2 Label Elements

Signal Word: Not available

Not available

Hazard Statement(s)

Code	Statement
Not available	Not available

Precautionary Statement(s)

Code	Statement
Not available	Not available

SECTION 3: Composition / information on ingredients

3.1 Substance

Component : Pantothenic Acid
CAS Number : 79-83-4
Molecular Formula : C■H■■NO■
Molecular Weight : 219.23
Parent Chemical : Pantothenic Acid
Synonyms : (R)-N-(2,4-Dihydroxy-3,3-dimethyl-1-oxobutyl)-β-alanine,Vitamin B5
Concentration : Not available

SECTION 4: First aid measures

SECTION 4: First-aid measures

4.1 Description of first aid measures
- General advice: Remove contaminated clothing and shoes. Seek medical attention if symptoms persist or develop.
- Inhalation: Move person to fresh air. If breathing is difficult, seek medical attention.
- Skin contact: Wash with plenty of water and soap. Get medical attention if irritation occurs.
- Eye contact: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if irritation persists.
- Ingestion: Rinse mouth. Do not induce vomiting unless directed by medical personnel. Get medical attention if feeling unwell.

4.2 Most important symptoms and effects, both acute and delayed
- Not available.

4.3 Indication of any immediate medical attention and special treatment needed
- Treat symptomatically. No data available.

SECTION 5: Firefighting measures

SECTION 5: Fire-fighting measures

5.1 Extinguishing media
- Suitable extinguishing media: Use extinguishing measures appropriate to surrounding fire (e.g., water spray, dry chemical, foam, carbon dioxide).
- Unsuitable extinguishing media: Not available.

5.2 Special hazards arising from the substance or mixture
- Specific hazards: Not available.
- Hazardous combustion products: Not available.

5.3 Advice for firefighters
- Wear self-contained breathing apparatus (SCBA) and full protective gear.
- Cool containers with water spray if exposed to fire.

SECTION 6: Accidental release measures

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
- Avoid breathing dust. Avoid contact with eyes and skin.

- Use appropriate personal protective equipment (see Section 8).
- Ensure adequate ventilation.

6.2 Environmental precautions
- Avoid release to the environment. Prevent entry into drains, surface water, or soil.

6.3 Methods and material for containment and cleaning up
- Avoid generating dust.
- Collect spilled material using suitable means (e.g., sweep carefully or use HEPA-filtered vacuum).
- Place in a suitable, labeled container for disposal in accordance with local regulations.

6.4 Reference to other sections
- See Sections 8 and 13.

SECTION-7: Handling and storage

SECTION 7: Handling and storage

7.1 Precautions for safe handling
- Handle in accordance with good industrial hygiene and safety practice.
- Avoid formation of dust and aerosols.
- Avoid contact with eyes, skin, and clothing.
- Provide adequate ventilation.

7.2 Conditions for safe storage, including any incompatibilities
- Store in a tightly closed container.
- Store in a cool, dry, well-ventilated place.
- Protect from moisture.
- Incompatible materials: Not available.

7.3 Specific end use(s)
- API / laboratory or industrial use. Specific uses not available.

SECTION 8: Exposure controls / personal protection

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
- Occupational exposure limits: No data available.
- Biological limit values: Not available.

8.2 Exposure controls
- Engineering controls: Use local exhaust ventilation or general ventilation to minimize dust exposure.

Personal protective equipment (PPE)
- Eye/face protection: Safety glasses with side shields or chemical goggles.
- Skin protection: Protective gloves. Protective clothing as appropriate.
- Respiratory protection: If dust is generated and ventilation is inadequate, use a suitable particulate respirator.
- Hygiene measures: Wash hands after handling. Do not eat, drink, or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Test	Result
Appearance	No data available
IR spectrum	No data available
pH	No data available
Solubility	No data available

Property	Value
a) Physical State	No data available
b) Color	No data available
c) Odor	No data available
d) pH	No data available
e) Vapour Pressure	No data available
f) Viscosity	No data available
g) Initial Boiling Point and boiling range	No data available
h) Melting Point / Freezing Point	No data available
i) Auto Ignition Temperature	No data available
j) Flash Point	No data available
k) Explosion Limit, Lower	No data available
l) Explosion Limit, Upper	No data available
m) Decomposition Temperature	No data available
n) Loss on Drying	No data available
o) Relative Density	No data available
p) Solubility (in DMSO)	No data available
q) Oxidizing Properties	No data available

SECTION 10: Stability and reactivity

SECTION 10: Stability and reactivity

10.1 Reactivity

- Not available.

10.2 Chemical stability
- Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
- Not available.

10.4 Conditions to avoid
- Avoid dust generation. Avoid moisture exposure. Other conditions: Not available.

10.5 Incompatible materials
- Not available.

10.6 Hazardous decomposition products
- Not available.

SECTION 11: Toxicological information

11.1 Information on toxicological effects
- Acute toxicity: Toxicity is likely at 10,000 mg daily and causes upset stomach and diarrhea as the most common symptoms, according to the National Institutes of Health (NIH) Office of Dietary Supplements. For more Human Toxicity Excerpts (Complete) data for D-Pantothenic Acid (7 total), please visit the HSDB record page.
- Skin corrosion/irritation: No data available.
- Serious eye damage/eye irritation: No data available.
- Respiratory or skin sensitization: No data available.
- Germ cell mutagenicity: /HUMAN EXPOSURE STUDIES/ The aim of this study was to determine the association between dietary intake, determined using a food frequency questionnaire, and genome damage in lymphocytes measured using the micronucleus (MN) assay. The study, performed on 190 healthy individuals (mean age 47.8 years, 46% males), also examined whether a supplementation with beta-carotene, vitamins C and E along with zinc (ACEZn), in a randomized trial for 6 months, improves genome stability. Multivariate analysis of baseline data showed that (1) the highest tertile of intake of vitamin E, retinol, folic acid, nicotinic acid (preformed) and calcium is associated with significant reductions in MN frequency, i.e. -28, -31, -33, -46 and -49%, respectively ($P < 0.005$) relative to the lowest tertile of intake and (2) the highest tertile of intake of riboflavin, pantothenic acid and biotin was associated with significant increases in MN frequency, ie +36% ($P = 0.054$), +51% ($P = 0.021$), and +65% ($P = 0.001$), respectively, relative to the lowest tertile of intake. Mid-tertile beta-carotene intake was associated with an 18% reduction in MN frequency ($P = 0.038$); however, the highest tertile of intake (>6400 ug/day) resulted in an 18% increment in MN frequency. Supplementation with ACEZn significantly reduced the MN index by 13% ($P = 0.038$). The study also showed interactive additive effects such as the protective effect of increased calcium intake (-46%) and the exacerbating effect of riboflavin (+42%) on increased genome damage caused by low folate intake. The results from this study illustrate the strong impact of a wide variety of micronutrients and their interactions on genome health, depending on the level of intake.
- Carcinogenicity: /CASE REPORTS/ ... A 76-year-old white woman was admitted to the hospital because of chest pain and dyspnea related to pleurisy and a pericardial tamponade. This patient had no history of allergy and had been taking vitamin B5 and vitamin H for two months. Blood tests performed showed an inflammatory syndrome and a high eosinophil concentration (1200-1500 cells/cu mm). Pleurocentesis and pericardiotomy yielded a sterile exudative fluid with an eosinophilic infiltrate. There were no nuclear antibodies and no rheumatic factor; screenings for viruses, parasites, bacteria, and malignant tumor were negative. A myelogram, biopsy of the iliac crest bone, and concentration of immunoglobulin E were also normal. After withdrawal of the vitamins, the patient recovered and the eosinophilia disappeared. ... This case suggests that vitamin B5 and vitamin H may cause symptomatic,

life-threatening, eosinophilic pleuropericarditis. Physicians prescribing these commonly used vitamins should be aware of this potential adverse reaction.
- Reproductive toxicity: No data available.
- STOT-single exposure: No data available.
- STOT-repeated exposure: /LABORATORY ANIMALS: Subchronic or Prechronic Exposure/ ... Male rats at 21 d of age were given 0.03% pantothenic acid in their drinking water for 9 weeks. After 9 weeks of treatment, the animals were decapitated, and adrenal cells were cultured in the absence or presence of rat adrenocorticotropic hormone (ACTH; 10-15 to 10-10 M) and/or ovine prolactin (oPRL; 10-9 to 10-7 M) for 4 hr. Adrenal cells in pantothenic acid-treated rats exhibited higher basal levels of corticosterone and progesterone than control rats. The response of ACTH and/or PRL on corticosterone and progesterone release was higher in the pantothenic acid-treated rats than in the control rats. In addition, PRL increased the stimulatory effect of ACTH-induced corticosterone secretion in both normal and pantothenic acid-treated rats. These results clearly demonstrated that pantothenic acid supplementation stimulates the ability of adrenal cells in male rats to secrete corticosterone and progesterone. Additionally, these results also showed that pantothenic acid supplementation induced adrenal hyperresponsiveness to ACTH stimulation, and PRL further stimulated adrenal sensitivity to ACTH.
- Aspiration hazard: No data available.

Likely routes of exposure
- No data available.

Symptoms related to the physical, chemical and toxicological characteristics
- Toxicity is likely at 10,000 mg daily and causes upset stomach and diarrhea as the most common symptoms, according to the National Institutes of Health (NIH) Office of Dietary Supplements.

SECTION 12: Ecological information

SECTION 12: Ecological information

12.1 Toxicity
- No data available.

12.2 Persistence and degradability
- No data available.

12.3 Bioaccumulative potential
- No data available.

12.4 Mobility in soil
- No data available.

12.5 Results of PBT and vPvB assessment
- Not available.

12.6 Endocrine disrupting properties
- Not available.

12.7 Other adverse effects
- Not available.

SECTION 13: Disposal considerations

SECTION 13: Disposal considerations

13.1 Waste treatment methods
- Dispose of contents/container in accordance with local/regional/national/international regulations.
- Do not discharge to drains.
- Contaminated packaging: Dispose of as unused product unless cleaned and permitted by regulations.

SECTION 14: Transport information

SECTION 14: Transport information

- UN number: Not available.
- UN proper shipping name: Not available.
- Transport hazard class(es): Not available.
- Packing group: Not available.
- Environmental hazards: Not available.
- Special precautions for user: Not available.
- Transport in bulk according to IMO instruments: Not available.

SECTION 15: Regulatory information

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Regulatory status/inventories: Not available.

15.2 Chemical safety assessment
- Not available.

SECTION 16: Other information

SECTION 16: Other information

- Product name: Pantothenic Acid
- CAS No.: 79-83-4
- Catalog No.: CS-T-38683
- Synonyms: (R)-N-(2,4-Dihydroxy-3,3-dimethyl-1-oxobutyl)-β-alanine; Vitamin B5
- Supplier: Clearsynth Labs Ltd., Mumbai, India
- Emergency phone: +91-22-245045900

Disclaimer
- The information provided is based on available product identification details and is intended for SDS preparation guidance. No data available for several hazard and regulatory endpoints; users should obtain and review additional data as needed for their specific application and jurisdiction.

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