

D-Panthenol 75 L**0416118**

Version 2.5

Revision Date 10/14/2022

Date of last issue: 09/18/2017

SECTION 1. IDENTIFICATION

Product name : D-Panthenol 75 L

Manufacturer or supplier's details

Company name of supplier : DSM Nutritional Products

Address : 45 Waterview Blvd
Parsippany NJ 07054-1298

Telephone : (908) 475-7373

Telefax : (908) 475-7406

Emergency telephone number : 1-800-424-9300 (24 HR CHEMTREC, CA & US); Outside CA & US +1-703-572-3887 (COLLECT CALLS ACCEPTED)

E-mail address of person responsible for the SDS : sds.nutritionalproducts@dsm.com

Recommended use of the chemical and restrictions on use

Recommended use : Ingredient for personal care products

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Not a hazardous substance or mixture.

GHS label elements

Not a hazardous substance or mixture.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTSBrief description of the product : Mixture (preparation) containing active ingredient and auxiliary substances
Aqueous solution**Hazardous components**

Chemical name	CAS-No.	Concentration (% w/w)
α -hydroxy- β , β -dimethyl- γ -butyrolactone	599-04-2	$\geq 1 - < 5$

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : No hazards which require special first aid measures.

If inhaled : Move to fresh air.
If symptoms persist, call a physician.In case of skin contact : Take off contaminated clothing and shoes immediately.
Wash off with soap and plenty of water.

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| In case of eye contact | : | Flush eyes with water as a precaution.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing. |
| If swallowed | : | Rinse mouth with water.
Do not give milk or alcoholic beverages.
Never give anything by mouth to an unconscious person. |
| Most important symptoms and effects, both acute and delayed | : | No specific symptoms known. |
| Notes to physician | : | Treat symptomatically. |

SECTION 5. FIREFIGHTING MEASURES

- | | | |
|---|---|---|
| Suitable extinguishing media | : | Alcohol-resistant foam
Dry chemical
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. |
| Specific hazards during fire-fighting | : | None known. |
| Further information | : | Standard procedure for chemical fires. |
| Special protective equipment for firefighters | : | In the event of fire, wear self-contained breathing apparatus. |

SECTION 6. ACCIDENTAL RELEASE MEASURES

- | | | |
|---|---|--|
| Personal precautions, protective equipment and emergency procedures | : | Use personal protective equipment. |
| Environmental precautions | : | Try to prevent the material from entering drains or water courses. |
| Methods and materials for containment and cleaning up | : | Wipe up with absorbent material (e.g. cloth, fleece).
Keep in suitable, closed containers for disposal. |

SECTION 7. HANDLING AND STORAGE

- | | | |
|---|---|---|
| Advice on protection against fire and explosion | : | Take necessary action to avoid static electricity discharge.
Product will burn under fire conditions. |
| Advice on safe handling | : | For personal protection see section 8. |
| Conditions for safe storage | : | To maintain product quality, do not store in heat or direct sunlight.

Keep container tightly closed and dry. |
| Materials to avoid | : | No special restrictions on storage with other products. |

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SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

Personal protective equipment

Respiratory protection	:	No personal respiratory protective equipment normally required.
Hand protection	:	
Remarks	:	Glove material: for example nitrile rubber
Eye protection	:	Safety glasses
Skin and body protection	:	Lightweight protective clothing
Hygiene measures	:	General industrial hygiene practice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Appearance	:	clear liquid
Colour	:	colourless - pale yellow
Odour	:	odourless
Odour Threshold	:	No information available.
pH	:	No data available
Melting point/range	:	not determined
Boiling point/boiling range	:	not determined
Flash point	:	> 212 °F (> 100 °C)
Evaporation rate	:	not determined
Lower explosion limit	:	not determined
Upper explosion limit	:	not determined
Vapour pressure	:	not determined
Relative vapour density	:	Not applicable
Density	:	not determined
Water solubility	:	completely soluble
Partition coefficient: n-octanol/water	:	Not applicable
Auto-ignition temperature	:	No data available
Auto-ignition temperature	:	not determined
Thermal decomposition	:	No data available
Viscosity, dynamic	:	not determined
Explosive properties	:	Not explosive
Oxidizing properties	:	Not oxidizing

Other information

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No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No hazards to be specially mentioned.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Possible incompatibility with materials listed under section 10.5.
Conditions to avoid	: Heat
Incompatible materials	: Strong acids and strong bases Strong oxidizing agents
Hazardous decomposition products	: No decomposition if used as directed.

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: Acute toxicity estimate : > 5,000 mg/kg (Calculation method)
Acute dermal toxicity	: LD50 (Rat): > 3,500 mg/kg Information refers to the main component.
Skin irritation	: No skin irritation (Rabbit, OECD Test Guideline 404) Information refers to the main component. : no phototoxic skin reaction (Guinea pig, CTFA Test Guideline) Information refers to the main component.
Eye irritation	: No eye irritation (Rabbit, OECD Test Guideline 405) Information refers to the main component.
Sensitisation	: Did not cause sensitization. (Guinea pig) Information refers to the main component. : no photoallergenic skin reaction (Guinea pig, CTFA Test Guideline) Information refers to the main component.
Genotoxicity in vitro	: not mutagenic (In vitro gene mutation study in mammalian cells, OECD Test Guideline 476) Information refers to the main component. : not genotoxic (Chromosome aberration test in vitro, OECD Test Guideline 473) Information refers to the main component.
Carcinogenicity	: No indication for carcinogenicity known.

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IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
Teratogenicity	: No human information is available.
STOT - single exposure (Acute exposure)	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	: NOAEL (Oral, Rat) : 200 mg/kg bw/d Sub-chronic toxicity study (90-day) Information refers to the main component.
Experience with human exposure	: Hypervitaminosis from provitamin B5 and vitamin B5 is unknown.
Experience with human exposure: Skin contact	: Allergic contact dermatitis (Cases have been reported rarely.)
Aspiration toxicity	: No aspiration toxicity classification

SECTION 12. ECOLOGICAL INFORMATION**Toxicity**

Toxicity to fish	: Oncorhynchus mykiss (rainbow trout) LC50 (96 h) > 1,000 mg/l Test substance: Active ingredient (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	: Daphnia magna (Water flea) EC50 (48 h) > 100 mg/l Test substance: Active ingredient (OECD Test Guideline 202)
Toxicity to algae	: Desmodesmus subspicatus (green algae) EbC50 (72 h) > 100 mg/l Test substance: Active ingredient (OECD Test Guideline 201) : NOEC (72 h) 100 mg/l
Toxicity to bacteria	: activated sludge NOEC 569 mg/l No inhibition was observed under the biodegradation test conditions. Information refers to the main component.

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(OECD Test Guideline 302B)
: *Pseudomonas putida*
EC50 (17 h) > 10,000 mg/l
(nominal concentration)
Information refers to the main component.
(DIN 38412)

Persistence and degradability

Biodegradability : Readily biodegradable.
97 % (21 d)
(OECD Test Guideline 301A)
Information refers to the main component.

Bioaccumulative potential

Bioaccumulation : No data available

Partition coefficient: n-octanol/water : Not applicable

Mobility in soil

Distribution among environmental compartments : No data available

Other adverse effects

Regulation 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : There is no data available for this product.

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

Waste from residues : User must determine if any wastes generated exhibit hazardous characteristics as per 40 CFR Part 261 or other national / local legislation.

Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging : Empty containers should be taken to an approved waste handling site for recycling or disposal.

SECTION 14. TRANSPORT INFORMATION**International Regulations****UNRTDG**

Not regulated as a dangerous good

IATA-DGR

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IMDG-Code

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

Not applicable for product as supplied.

National Regulations**49 CFR**

Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION**EPCRA - Emergency Planning and Community Right-to-Know Act****CERCLA Reportable Quantity**

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : No SARA Hazards**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.**Clean Air Act**

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

This product does not contain any priority pollutants related to the U.S. Clean Water Act

US State Regulations**Massachusetts Right To Know**

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Knowdexpanthenol
water81-13-0
7732-18-5**Maine Chemicals of High Concern**

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Product does not contain any listed chemicals

Vermont Chemicals of High Concern

Product does not contain any listed chemicals

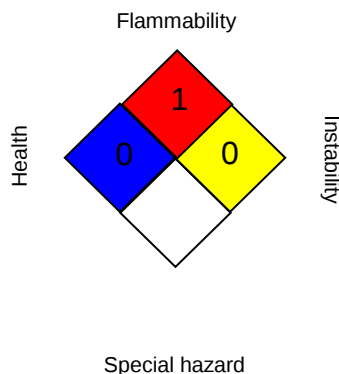
Washington Chemicals of High Concern

Product does not contain any listed chemicals

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

SECTION 16. OTHER INFORMATION**Further information****NFPA 704:****HMIS® IV:**

HEALTH	/	0
FLAMMABILITY		1
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New

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Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

ACGIH = American Conference of Governmental Industrial Hygienists. CFR = Code of Federal Regulations. EPA = Environmental Protection Agency. NIOSH = National Institute of Occupational Safety and Health. OSHA = Occupational Safety and Health Administration. STEL = Short term exposure limit. TLV = Threshold Limit Value. TLV-C = Ceiling Limit Value. TWA = Time Weighted Average.

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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