

Ethyl Panthenol**0483575**

Version 1.3

Revision Date 02/13/2018

Date of last issue: 04/20/2015

SECTION 1. IDENTIFICATION

Product name : Ethyl Panthenol
Substance name : N-(3-ethoxypropyl)-2,4-dihydroxy-3,3-dimethylbutanamide

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 +1-703-741-5970 (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 : For cosmetic products (skin and hair care)

SECTION 2. HAZARDS IDENTIFICATION**GHS classification in accordance with 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 INGREDIENTS

Brief description of the product : Substance
Synonyms : panthenyl ethyl ether, (RS)-1-(3-Ethoxy-propylamino)-2,4-dihydroxy-3,3-dimethylbutane-1-one
CAS-No. : 667-84-5
Molecular formula : C₁₁H₂₃NO₄

Hazardous components

No hazardous ingredients

Further ingredients

Component	CAS-No.	Weight percent
Butanamide, N-(3-ethoxypropyl)-2,4-dihydroxy-3,3-dimethyl-,(+)-	667-84-5	98 - 100

SECTION 4. FIRST AID MEASURES

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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.
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	: Clean mouth with water and drink afterwards plenty of 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.
Unsuitable extinguishing media	: High volume water jet
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	: Take necessary action to avoid static electricity discharge.
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fire and explosion	Product will burn under fire conditions.
Advice on safe handling	: For personal protection see section 8.
Conditions for safe storage	: Keep container tightly closed and dry.
Materials to avoid	: No special restrictions on storage with other products.

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	: viscous liquid
Colour	: colourless - pale yellow
Odour	: slight, characteristic
Odour Threshold	: No information available.
pH	: 9.0 - 11.0 (10%) (as aqueous solution)
Solidification point	: -27 - -20 °C (OECD Test Guideline 102)
Boiling point/boiling range	: 237 - 238 °C (OECD Test Guideline 103) with decomposition
Flash point	: 273 °F (134 °C) Method: DIN 51758
Evaporation rate	: not determined
Lower explosion limit	: not determined
Upper explosion limit	: not determined
Vapour pressure	: 0.0044 hPa (25 °C; OECD Test Guideline 104)
Relative vapour density	: not determined
Density	: 1.07 g/cm ³ (20 °C; OECD Test Guideline 109)
Water solubility	: > 1,000 g/l (22 °C; OECD Test Guideline 105)
Solubility in other solvents	: Ethanol: soluble

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	Glycerol: soluble
	Propylene glycol: soluble
Partition coefficient: n-octanol/water	: log Pow 0.3 (20 °C; OECD Test Guideline 117)
Ignition temperature	: 662 °F (350 °C) (at 1,019 hPa, DIN 51794)
Thermal decomposition	: Not relevant
Viscosity, dynamic	: 2,588 mPa.s (25 °C)
Explosive properties	: Not explosive
Oxidizing properties	: No data available

Other information

Refractive index	: 1.473 - 1.477 (589 nm, 20 °C)
Molecular weight	: 233.31 g/mol
Dissociation constant	: pKa -1.68 (calculated value)
	: pKa 13.16 (calculated value)
Further information	: hygroscopic
Surface tension	: 68.3 mN/m (1.024 g/l, ca. 20 °C, Tested according to Directive 92/69/EEC.)

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	: Nitrogen oxides (NO_x) Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute oral toxicity	: LD50 (Rat): > 2,000 mg/kg (OECD Test Guideline 401)
Acute dermal toxicity	: LD50 (Rat): > 2,000 mg/kg (OECD Test Guideline 402)
Skin irritation	: No skin irritation (Rabbit, OECD Test Guideline 404, 4 h)
	: no phototoxic skin reaction (human)

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Eye irritation	: Non persistent irritation (Rabbit, OECD Test Guideline 405) temporary redness
Sensitisation	: Did not cause sensitization. (Guinea pig, Maximisation Test, OECD Test Guideline 406)
Genotoxicity in vitro	: not mutagenic, not genotoxic (Various test systems)
Carcinogenicity	: This information is not available.
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 carcino- gen by NTP.
Reproductive toxicity	: This information is not available.
Teratogenicity	: not teratogenic not embryotoxic NOAEL: 1,000 mg/kg bw/d (Rat, Oral, OECD Test Guideline 414)
STOT - single exposure (A- cute exposure)	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	: NOEL (Oral, Rat) : 1000 mg/kg bw/d Subacute toxicity study (28 days) (OECD Test Guideline 407) : NOAEL (Oral, Rat) : 1000 mg/kg bw/d Sub-chronic toxicity study (90-day) (OECD Test Guideline 408)
Aspiration toxicity	: No aspiration toxicity classification

SECTION 12. ECOLOGICAL INFORMATION**Toxicity**

Toxicity to fish	: Cyprinus carpio (Carp) LC50 (96 h) > 100 mg/l (OECD Test Guideline 203)
Toxicity to daphnia and other	: Daphnia magna (Water flea)

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aquatic invertebrates	EC50 (48 h) > 100 mg/l (OECD Test Guideline 202)
Toxicity to algae	: Desmodismus subspicatus (green algae) EbC50 (96 h) > 100 mg/l (OECD Test Guideline 201) : ErC50 (96 h) > 100 mg/l
Toxicity to bacteria	: activated sludge EC50 > 100 mg/l No inhibition was observed on microbial respiration. (OECD Test Guideline 209)
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	: Daphnia magna (Water flea) NOEC (21 d) >= 100 mg/l (OECD Test Guideline 202)

Persistence and degradability

Biodegradability	: Not readily biodegradable. 10 % (28 d) (OECD Test Guideline 301B)
Stability in water	: (50 °C, pH 4 - 9, Tested according to Directive 92/69/EEC.) Stable

Bioaccumulative potential

Partition coefficient: n-octanol/water	: log Pow 0.3 (20 °C ; OECD Test Guideline 117)
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Mobility in soil

Distribution among environmental compartments	: No data available
Surface tension	: 68.3 mN/m (1.024 g/l, ca. 20 °C, Tested according to Directive 92/69/EEC.)

Results of PBT and vPvB assessment

Assessment	: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
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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.

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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

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

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

Remarks : Not classified as dangerous in the meaning of transport regulations.

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 311/312 Hazards : No SARA Hazards

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

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).

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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

US State Regulations**Massachusetts Right To Know**

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

Pennsylvania Right To Know

Butanamide, N-(3-ethoxypropyl)-2,4-dihydroxy-3,3-dimethyl- 667-84-5
,(+)-

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**Full text of other abbreviations**

AICS - Australian Inventory of Chemical Substances; 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 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

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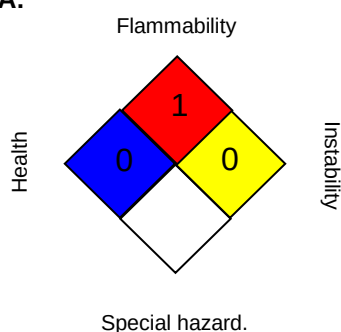
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Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; 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. TWA = Time Weighted Average.

Further information**NFPA:****HMIS® IV:**

HEALTH	/	1
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.

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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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