

## Ascorbyl Glucoside

### Description

Ascorbyl Glucoside is a stabilized Ascorbic Acid derivative with superior formulation stability; it is easily soluble in water.

It resists discoloration and degradation, while retaining all the biologic activity of L-ascorbic acid.

Ascorbyl Glucoside has the same lightening, sun protective and anti-aging properties as L-ascorbic acid. It penetrates into the skin where it is metabolized to free vitamin C.

### Appearance

white to cream white powder

### INCI

Ascorbyl Glucoside

### Registration

CAS-No.....129499-78-1

EINECS-No.....425-980-0

Raw material approved by ECOCERT GREENLIFE, conform to the ECOCERT Natural and Organic Cosmetics Standard.

### Preservatives/Stabilizers

none

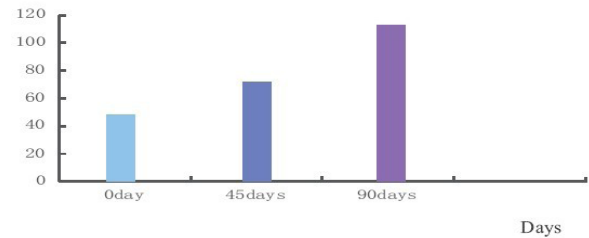
### Efficacy

- excellent antioxidant
- boosts collagen production
- lightening & brightening
- reduces fine lines and wrinkles
- repairs and protects from sun damage

Our experience - Your success.

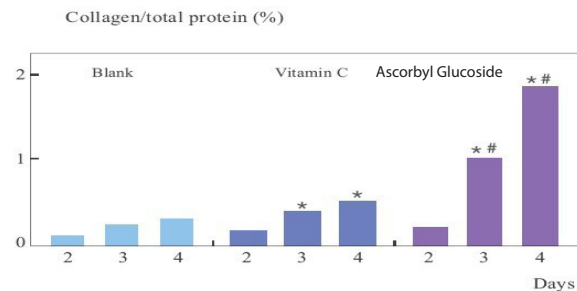


### Skin Lightening



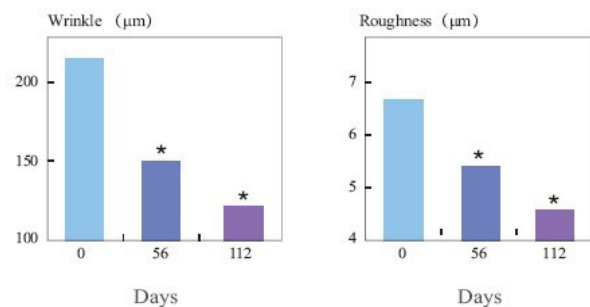
Sixteen female volunteers (37 to 55 years old) applied a face cream containing 2 % of Ascorbyl Glucoside, twice a day.

### Promotion of Collagen Synthese



(\*Significantly different from control at <0.05 and #significantly different from vitamin C at <0.05)

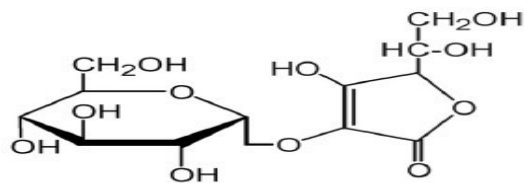
### Wrinkle Reduction / Skin Roughness



Sixteen female volunteers (37 to 55 years old) applied a face cream containing 2 % of Ascorbyl Glucoside, twice a day for a total of 112 days to the outer corners of their eyes and cheek area.

## Ascorbyl Glucoside

### Chemical structure



Glucose

Vitamin C

Molecular formula:  $C_{12}H_{18}O_{11}$   
Molecular Weight: 338.26472

### Characteristics

pH-value.....2.0 - 2.5  
melting point.....158°C - 163°C  
optical rotation.....+186.0° - +188.0°  
assay.....>=98 %

### Application

Ascorbyl Glucoside can be incorporated in different kinds of cosmetic formulations.

### Application concentration

skin care creams.....0.1 - 2.0 %  
anti wrinkle treatment.....1.0 - 2.0 %  
skin lightening products.....1.0 - 2.0 %

### Incorporation

Ascorbyl Glucoside is highly stable at pH 5 - 7 even at high temperatures (up to 100 °C).

Please avoid leaving it under prolonged conditions of strong acidity or alkalinity (pH 2 - 4 and 9 - 12); do not work with Sodium Hydroxide.

For better stability and to avoid pH drift the use of 1 % citrate buffer is recommended.

To avoid discoloration protect the formulation from light, heat and high temperatures and adjust pH to

6.5 to 6.8. The addition of metal chelating agent and/or an antioxidant improves stability.

### Toxicology

Skin irritation: not irritant  
Eye irritation: not irritant  
Skin sensitization: not sensitizing  
Acute Toxicity: > 2,000 mg/kg  
(by oral administration)  
> 2,000 mg/kg  
(by dermal administration)  
Subacute Toxicity: NOAEL > 1,000 mg/kg  
(28-day oral administration to rat)

### Storage & Shelf life

Shelf life is 24 months. Store in sealed containers in a cool and dry place. Protect from light and moisture.

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Leaflet\_7268\_e02  
30.09.2014/sb

## Sodium Ascorbyl Phosphate

### Description

Vitamin C (ascorbic acid) is one of the most widely used antioxidants for protecting the skin. Unfortunately, it is not stable in cosmetic formulations.

Vitamin C is important to help protect the skin against UV-induced free radical damage that is related to skin aging. To provide the maximum benefit from Vitamin C, it is recommended that a stable form of Vitamin C is used in personal care preparations. One of these stable Vitamin C derivatives is Sodium Ascorbyl Phosphate.

Sodium Ascorbyl Phosphate is an esterified derivative of ascorbic acid, which is improving stability and is stable in cosmetic formulations. Sodium Ascorbyl Phosphate penetrates into skin and there it is metabolized to ascorbic acid. Due to this process its efficacy is better than the one of pure ascorbic acid. It resists discoloration and degradation, while retaining all biological activity of L-ascorbic acid.

### Appearance

white to almost white powder

### INCI

Sodium Ascorbyl Phosphate

### Registration

CAS-No.....66170-10-3

EINECS-No.....425-180-1

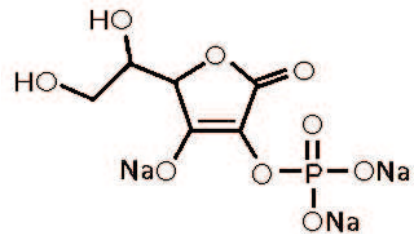
### Preservatives / Stabilizers

none

### Efficacy

- excellent antioxidant
- boosts collagen production
- lightening & brightening
- antimicrobial against Propionibacterium acnes

### Chemical Structure



Molecular formula:  $C_6H_6O_9Na_3P$

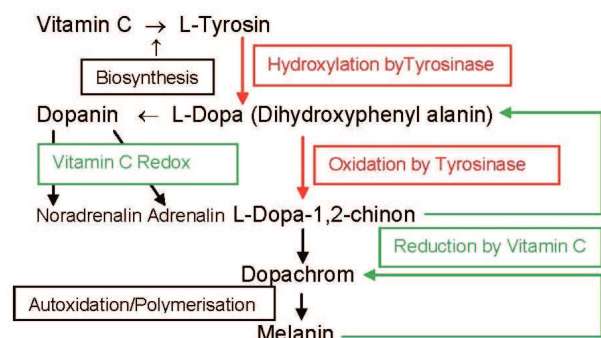
Molecular weight: 322.05 g/mol

### Characteristics

assay.....	>= 98.0 %
pH-value (3% solution).....	8.0 - 10.0
loss on drying.....	<= 10 %
heavy metals.....	<= 0.001 %

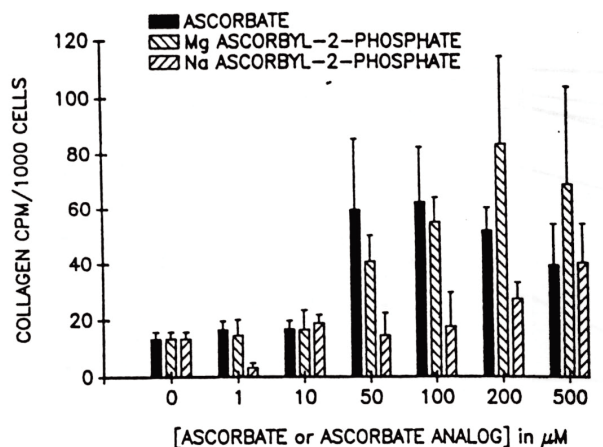
### Application

Sodium Ascorbyl Phosphate is an excellent skin whitening agent, it is **inhibiting** Tyrosinase and at the same time it is very effective **reducing agent**. Therefore it has two modes of action to influence melanogenesis.



Sodium Ascorbyl Phosphate also improves the synthesis of collagen and repairs the collagen structure. So collagen is filled up from within.

## Sodium Ascorbyl Phosphate



In addition it is a very strong antioxidant, eliminating free radicals and preventing lipid peroxidation.

Sodium Ascorbyl Phosphate also avoids inflammation and inhibits the formation of edema.

Sodium Ascorbyl Phosphate functions as a stable precursor Vitamin C that ensures a constant delivery of Vitamin C into the skin. It has a strong antimicrobial effect with a log reduction of 5 after 8 h on *Propionibacterium acnes* in a time-kill study. These are data which show that Sodium Ascorbyl Phosphate is efficient in the prevention and treatment of acne vulgaris. Sodium Ascorbyl Phosphate can be used in a non-antibiotic and effective treatment or co-treatment of acne with no side effects, which makes it particularly attractive for cosmetic purposes.

### Application concentration

Skin care products .....	0.2 - 2.0 %
Sun care products.....	0.2 - 1.0 %
Sun lightening products.....	3.0 - 5.0 %
Anti-Acne products.....	1.0 - 5.0 %

### Incorporation

Sodium Ascorbyl Phosphate can easily be incorporated in cosmetic formulations below 40°C. It is soluble in water up to 64 %, in glycerol up to 13.2 % and 1.6 % in propylene glycol.

In production of cosmetic care products, it is recommended to add Sodium Ascorbyl Phosphate to formulations at temperatures below 40°C. It can be exposed to higher temperatures up to 80°C, but only for a short time.

The product is most stable above pH 6.5. For better stability and to avoid pH drift to acidic pH-values the use of 1 % citrate buffer is recommended, as well as the use of a chelating agent and an antioxidant.

Long acidic conditions at pH 2-4, heavy metals and heat should be avoided. To avoid discoloration the formulation should be protected from light, heat and high temperatures.

### Toxicology

Skin irritation:	not irritant
Eye irritation:	not irritant
Skin sensitization:	not irritant
Acute toxicity:	> 5.000 mg/kg (by oral administration)
	> 2.000 mg/kg (by dermal administration)
Subacute toxicity:	NOAL > 90 mg/kg (28-day oral administration)

### Storage & Shelf life

Sodium Ascorbyl Phosphate should be stored in sealed containers in a dry and light protected place between 10°C - 25°C.

In closed containers the shelf life is 36 months.

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Leaflet\_7307\_e  
25.09.2018

# Vitamin A-Palmitate 1.0 Mio IU/G

## Chemical names of active ingredient

Retinyl palmitate, all-trans retinol palmitic acid ester

**CAS-No.** 79-81-2

**EINECS-No.** 201-228-5

## PRD-Nos. Articles

30041040*	Vitamin A-Palmitate 1.0 Mio IU/G stabilized with BHT
	55799871 5 kg plastic can
	55798705 25 kg plastic bucket
30041043*	Vitamin A-Palmitate 1.0 Mio IU/G stabilized with Tocopherol
	55856899 5 kg plastic can
	55856634 25 kg plastic bucket

\* The product is kosher.

## Country of origin

Germany

## Units

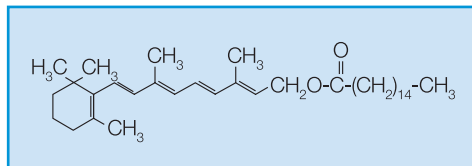
1 International Unit (IU) = 0.550 µg  
vitamin A-palmitate

## Description

Viscous, yellow oil at room temperature. At the recommended storage temperatures, some of the vitamin A-palmitate may crystallize. The assay is adjusted by adding pharmaceutical-grade sunflower oil.

## Solubility

Soluble in hydrocarbons, chlorinated hydrocarbons, ethers, fats, and oils. The solvent should not contain peroxides. Insoluble in water.



$C_{36}H_{60}O_2$

Molar mass 524.9 g/mol

## Specification

Assay min. 1.0 million IU vitamin A  
(= 300,000 RE) per gram

For further information see separate document: "Standard Specification" (not for regulatory purposes) available via BASF's WorldAccount: <https://worldaccount.basf.com> (registered access).

Unless otherwise stated, the methods of analysis can be found in the Ph. Eur.

## Monographs

The product complies with the current "Vitamin A concentrate (oily form), synthetic" Ph. Eur. and "Vitamin A" USP monographs.

## Regulations

The product meets the regulatory requirements for a vitamin A source in most countries. However, regulations on the ingredients used in the respective countries and for the intended use have to be observed.

## Stability

Vitamin A-Palmitate 1.0 Mio IU/g is stabilized with approx. 10 mg t-butylhydroxytoluene (BHT, E321) or with approx. 10 mg of DL-alpha-tocopherol (E307) per 1.0 million IU. However, it may be supplied unstabilized upon request.

Stored in its unopened original packaging in a cool (8 – 15 °C), dry place, all grades of Vitamin A-Palmitate 1.0 million IU/g are stable for at least 36 months.

## Storage/Handling

As vitamin A is sensitive to atmospheric oxygen, light, moisture, and heat, it should be stored in a cool, dark place in the unopened original packaging. Once opened, it is recommended to flush the packaging with an inert gas and to use the remaining contents as quickly as possible.

Prior to use or sampling, the product must be heated to 40 °C in the unopened container and homogenized.

## Applications

### Dietary supplements:

For preparations with a lipophilic base, e.g., soft gelatin capsules.

Sterilization of the final product is required for parenteral use. Further information can be found in the book "Functions and Applications of BASF Pharmaceutical Excipients."

### Food products:

Used for the fortification of fatty foods, such as margarine, spreads, oils, milk, and dairy products. Quantities of 3 – 9 mg (10,000 – 30,000 IU) of vitamin A, calculated as retinol, are usually added per kg of margarine. The regulations governing the use of BHT must be observed.

### Cosmetics:

For use in cosmetic oils, emulsions (creams, lotions, body milk, gels, etc.), and other preparations, e.g., lipstick, masks. The maximum quantities legally permitted for use in cosmetics must be observed.

## Note

Vitamin A-Palmitate 1.0 Mio IU/G in oil must be handled in accordance with the Safety Data Sheet.

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November 2011

# Niacinamide

## Multi-benefit Active for Personal Care



**INCI Name:** Niacinamide USP PC

**SAP Code#:** 202937

**INCI Name:** Niacinamide USP

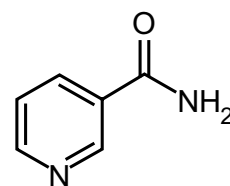
**SAP Code#:** 194749

### Key Product Attributes

- Upregulates Aquaporin-3 [AQP3] (in vitro)
- Enhances skin tone (in vitro)
- Helps improve the overall appearance of skin
  - Improving skin texture
  - Evening skin complexion
- May help to reduce the appearance of acne
- May help to revitalize hair to minimize hair fall and improve its overall appearance
- Two grades available for the Personal Care market: Niacinamide USP PC (low niacin) and Niacinamide USP

#### Niacinamide USP / Niacinamide USP PC

INCI name:	Niacinamide
Other names:	Nicotinamide, Nicotinic acid amide, Pyridine 3-carboxylic acid amide, Vitamin B3
Chemical formula:	C <sub>6</sub> H <sub>6</sub> N <sub>2</sub> O
CAS No:	98-92-0



### What is Niacin/Niacinamide?

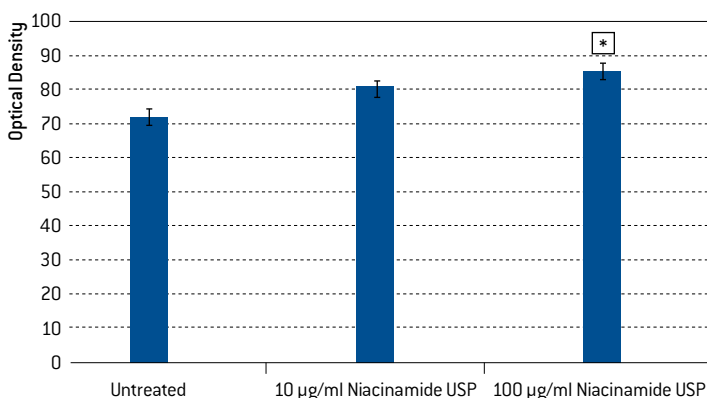
Niacinamide (nicotinamide) comprises one of the two forms of Vitamin B3; niacin (or nicotinic acid) being the other, both of which provide equivalent vitamin activity. As an essential component of living cells, Vitamin B3 is essential for protein, carbohydrate and fat metabolism. Niacinamide is a precursor in the synthesis of the pyridine coenzymes NAD and NADP involved in cell metabolism, and as such play a key role in the production of energy.

## Efficacy Studies (*in vitro*)

### Upregulation of AQP3: Epidermal Keratinocytes

Aquaporins (AQP) are a family of transport proteins involved with the movement of water and small solutes across cell membranes. Epidermal keratinocytes have been shown to express AQP3, and the glycerol transport function of AQP3 has been implicated to play a critical role in maintaining skin hydration. Therefore, materials which can influence the level of epidermal AQP3 can prove to be valuable components in cosmetic or personal health care products. For this study, untreated human keratinocytes were compared to keratinocytes treated with 10 µg/ml and 100 µg/ml of Niacinamide USP. After the 48-hour treatment period was completed, assessment of AQP3 expression of the treated keratinocytes showed that application of 100 µg/ml of Niacinamide USP provided a statistically significant positive effect on AQP3 expression.

### Change in Aquaporin-3 Expression (*in vitro*)

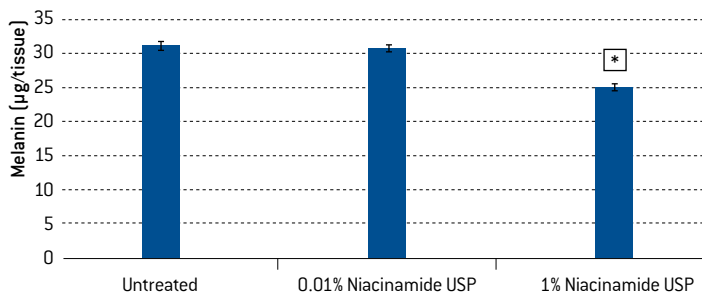


\* Denotes values that are significantly different from the Untreated group ( $p < 0.05$ ).

### Enhanced Skin Tone: Tanned Epidermal Model

Studies have shown that Niacinamide USP has a positive effect in inhibiting melanin synthesis to deliver a more uniform skin tone appearance. To assess its effect on melanin, a study was conducted using SkinEthic's Tanned Epidermis model where treatments with both 1% and 0.01% of Niacinamide USP were applied to the surface of the tissue substrate over a 9-day period. Upon completion of the treatment period, melanin values were calculated. The results of this study showed that 1% Niacinamide USP provided a statistically significant reduction of melanin synthesis versus untreated tissue.

### Assessment of Melanin Concentrations via Melanin Assay (*in vitro*)



\* Denotes values that are significantly different from the Untreated group ( $p < 0.05$ ).

## Lonza – Your Reliable Supplier for Vitamin B3

Lonza has been a leading supplier of Vitamin B3 for over 40 years, producing Niacinamide in different forms for the dietary supplements, food, personal care, pharma and animal nutrition markets. Lonza Consumer Care is committed to providing unsurpassed quality products, stemming from our belief that our products are an extension of yours.

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# Safety data sheet

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 21.10.2016

Version: 3.0

Product: **D-Panthenol 75 W**

(ID no. 30070776/SDS\_COS\_EU/EN)

Date of print 22.10.2016

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

### 1.1. Product identifier

## D-Panthenol 75 W

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

Relevant identified uses: cosmetic ingredient

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

Company:

BASF SE

67056 Ludwigshafen

GERMANY

Operating Division Care Chemicals

Telephone: +49 211 7940-2222

E-mail address: emc-ehs-masterdata@basf.com

### 1.4. Emergency telephone number

International emergency number:

Telephone: +49 180 2273-112

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## SECTION 2: Hazards Identification

### 2.1. Classification of the substance or mixture

According to Regulation (EC) No 1272/2008 [CLP]

No need for classification according to GHS criteria for this product.

### 2.2. Label elements

| According to Regulation (EC) No 1272/2008 [CLP]

The product does not require a hazard warning label in accordance with GHS criteria.

### **2.3. Other hazards**

According to Regulation (EC) No 1272/2008 [CLP]

No specific dangers known, if the regulations/notes for storage and handling are considered.

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## **SECTION 3: Composition/Information on Ingredients**

### **3.1. Substances**

Not applicable

### **3.2. Mixtures**

Chemical nature

INCI Name: Panthenol

Preparation based on: Dexpanthenol (Content (W/W): 75 %), Water

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## **SECTION 4: First-Aid Measures**

### **4.1. Description of first aid measures**

Remove contaminated clothing.

If inhaled:

Keep patient calm, remove to fresh air.

On skin contact:

Wash thoroughly with soap and water.

On contact with eyes:

Wash affected eyes for at least 15 minutes under running water with eyelids held open. If adverse health effects develop seek medical attention.

On ingestion:

Rinse mouth and then drink plenty of water.

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

Symptoms: No significant symptoms are expected due to the non-classification of the product.

Hazards: No hazard is expected under intended use and appropriate handling.

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

Treatment: Symptomatic treatment (decontamination, vital functions).

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### **SECTION 5: Fire-Fighting Measures**

#### **5.1. Extinguishing media**

Suitable extinguishing media:

water spray, carbon dioxide, foam

#### **5.2. Special hazards arising from the substance or mixture**

harmful vapours

Evolution of fumes/fog. The substances/groups of substances mentioned can be released in case of fire.

#### **5.3. Advice for fire-fighters**

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

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### **SECTION 6: Accidental Release Measures**

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

No special precautions necessary.

#### **6.2. Environmental precautions**

Do not discharge into drains/surface waters/groundwater.

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

For small amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

For large amounts: Pick up with suitable absorbent material (e.g. sand, sawdust, general-purpose binder, kieselguhr).

Dispose of absorbed material in accordance with regulations.

#### **6.4. Reference to other sections**

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

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### **SECTION 7: Handling and Storage**

#### **7.1. Precautions for safe handling**

Handle in accordance with good industrial hygiene and safety practice.

Protection against fire and explosion:

Prevent electrostatic charge - sources of ignition should be kept well clear - fire extinguishers should be kept handy.

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

Suitable materials for containers: Stainless steel 1.4401, Stainless steel 1.4301 (V2), enamelled, High density polyethylene (HDPE), Aluminium, glass, Low density polyethylene (LDPE)

Further information on storage conditions: Keep container tightly closed in a cool, well-ventilated place.

## 7.3. Specific end use(s)

For the relevant identified use(s) listed in Section 1 the advice mentioned in this section 7 is to be observed.

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## SECTION 8: Exposure Controls/Personal Protection

### 8.1. Control parameters

#### Components with occupational exposure limits

156-87-6: 3-Aminopropan-1-ol

1310-73-2: sodium hydroxide

18996-35-5: Sodium dihydrogen citrate

### 8.2. Exposure controls

#### Personal protective equipment

Hand protection:

Suitable chemical resistant safety gloves (EN 374) also with prolonged, direct contact (Recommended: Protective index 6, corresponding > 480 minutes of permeation time according to EN 374): E.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm) etc.

Supplementary note: The specifications are based on tests, literature data and information of glove manufacturers or are derived from similar substances by analogy. Due to many conditions (e.g. temperature) it must be considered, that the practical usage of a chemical-protective glove in practice may be much shorter than the permeation time determined through testing.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

#### General safety and hygiene measures

Handle in accordance with good industrial hygiene and safety practice.

#### Environmental exposure controls

For information regarding environmental exposure controls, see Section 6.

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## SECTION 9: Physical and Chemical Properties

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

Form:	liquid
Colour:	slightly yellowish
Odour:	characteristic
Odour threshold:	not determined
pH value:	5.5 - 7.0
onset of boiling:	> 100 °C
Flash point:	contains water > 101 °C
Evaporation rate:	Aqueous preparation Value can be approximated from Henry's Law Constant or vapor pressure.
Flammability:	Based on the structure or composition there is no indication of flammability
Flammability of Aerosol Products:	not applicable, the product does not form flammable aerosoles
Lower explosion limit:	For liquids not relevant for classification and labelling.
Upper explosion limit:	For liquids not relevant for classification and labelling.
Ignition temperature:	No data available.
Vapour pressure:	approx. 23 hPa (20 °C)
Density:	approx. 1.16 g/cm <sup>3</sup> (25 °C)
Relative vapour density (air):	not determined
Solubility in water:	readily soluble
Partitioning coefficient n-octanol/water (log Kow):	not determined
Self ignition:	not self-igniting
Thermal decomposition:	> 40 °C
Viscosity, dynamic:	not determined
Viscosity, kinematic:	not determined
Explosion hazard:	not determined Based on the chemical structure there is no indicating of explosive properties.

Fire promoting properties: Based on its structural properties the product is not classified as oxidizing.

## 9.2. Other information

Other Information:

If necessary, information on other physical and chemical parameters is indicated in this section., No further information available.

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## SECTION 10: Stability and Reactivity

### 10.1. Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

### 10.2. Chemical stability

The product is stable if stored and handled as prescribed/indicated.

### 10.3. Possibility of hazardous reactions

No hazardous reactions if stored and handled as prescribed/indicated.

### 10.4. Conditions to avoid

See MSDS section 7 - Handling and storage.

### 10.5. Incompatible materials

Substances to avoid:

No substances known that should be avoided.

### 10.6. Hazardous decomposition products

Hazardous decomposition products:

No hazardous decomposition products if stored and handled as prescribed/indicated.

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## SECTION 11: Toxicological Information

### 11.1. Information on toxicological effects

#### Acute toxicity

Assessment of acute toxicity:

Virtually nontoxic after a single ingestion.

Experimental/calculated data:

LD50 rat (oral): > 5,000 mg/kg

#### Irritation

Assessment of irritating effects:

Not irritating to eyes and skin.

#### Respiratory/Skin sensitization

Assessment of sensitization:

There is no evidence of a skin-sensitizing potential.

#### Germ cell mutagenicity

Assessment of mutagenicity:

The chemical structure does not suggest a specific alert for such an effect.

#### Carcinogenicity

Assessment of carcinogenicity:

The chemical structure does not suggest a specific alert for such an effect.

#### Reproductive toxicity

Assessment of reproduction toxicity:

The chemical structure does not suggest a specific alert for such an effect.

#### Developmental toxicity

Assessment of teratogenicity:

No data was available concerning toxicity to development.

#### Specific target organ toxicity (single exposure)

Assessment of STOT single:

Based on available Data, the classification criteria are not met.

#### Repeated dose toxicity and Specific target organ toxicity (repeated exposure)

Assessment of repeated dose toxicity:

The information available on the product provides no indication of toxicity on target organs after repeated exposure.

#### Aspiration hazard

No aspiration hazard expected.

#### Other relevant toxicity information

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

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## SECTION 12: Ecological Information

### 12.1. Toxicity

Assessment of aquatic toxicity:

At the present state of knowledge, no negative ecological effects are expected.

Toxicity to fish:

LC50 > 100 mg/l

Microorganisms/Effect on activated sludge:

EC0 > 100 mg/l

### 12.2. Persistence and degradability

Assessment biodegradation and elimination (H2O):

Readily biodegradable (according to OECD criteria).

Easily eliminated from water.

### 12.3. Bioaccumulative potential

Assessment bioaccumulation potential:

Accumulation in organisms is not to be expected.

### 12.4. Mobility in soil

Assessment transport between environmental compartments:

Volatility: not applicable

### 12.5. Results of PBT and vPvB assessment

According to Annex XIV of Regulation (EC) No.1907/2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH): The product does not contain a substance fulfilling the PBT (persistent/bioaccumulative/toxic) criteria or the vPvB (very persistent/very bioaccumulative) criteria. Self classification

### 12.6. Other adverse effects

The product does not contain substances that are listed in Regulation (EC) 1005/2009 on substances that deplete the ozone layer.

### 12.7. Additional information

Other ecotoxicological advice:

The product has not been tested. The statements on ecotoxicology have been derived from the properties of the individual components.

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## SECTION 13: Disposal Considerations

### 13.1. Waste treatment methods

Observe national and local legal requirements.

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## SECTION 14: Transport Information

### Land transport

#### ADR

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

#### RID

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

### Inland waterway transport

#### ADN

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user:	None known

### Transport in inland waterway vessel

Not evaluated

### **Sea transport**

#### IMDG

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

### **Air transport**

#### IATA/ICAO

	Not classified as a dangerous good under transport regulations
UN number:	Not applicable
UN proper shipping name:	Not applicable
Transport hazard class(es):	Not applicable
Packing group:	Not applicable
Environmental hazards:	Not applicable
Special precautions for user	None known

#### **14.1. UN number**

See corresponding entries for "UN number" for the respective regulations in the tables above.

#### **14.2. UN proper shipping name**

See corresponding entries for "UN proper shipping name" for the respective regulations in the tables above.

#### **14.3. Transport hazard class(es)**

See corresponding entries for "Transport hazard class(es)" for the respective regulations in the tables above.

#### **14.4. Packing group**

See corresponding entries for "Packing group" for the respective regulations in the tables above.

#### **14.5. Environmental hazards**

See corresponding entries for "Environmental hazards" for the respective regulations in the tables above.

#### **14.6. Special precautions for user**

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BASF Safety data sheet according to Regulation (EC) No. 1907/2006 as amended from time to time.

Date / Revised: 21.10.2016

Version: 3.0

Product: **D-Panthenol 75 W**

(ID no. 30070776/SDS\_COS\_EU/EN)

Date of print 22.10.2016

See corresponding entries for "Special precautions for user" for the respective regulations in the tables above.

#### **14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code**

Regulation:	Not evaluated
Shipment approved:	Not evaluated
Pollution name:	Not evaluated
Pollution category:	Not evaluated
Ship Type:	Not evaluated

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### **SECTION 15: Regulatory Information**

#### **15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

#### **15.2. Chemical Safety Assessment**

Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

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### **SECTION 16: Other Information**

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

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Vertical lines in the left hand margin indicate an amendment from the previous version.