

**ALPHA-ARBUTIN****5016372**

Version 1.2

Revision Date 01/27/2022

Date of last issue: 12/05/2018

**SECTION 1. IDENTIFICATION**

Product name : ALPHA-ARBUTIN  
Substance name : 4-hydroxyphenyl- $\alpha$ -D-glucopyranoside

**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)**

Acute toxicity (Oral) : Category 4

**GHS label elements**

Hazard pictograms :



Signal word : Warning

Hazard statements : H302 Harmful if swallowed.

Precautionary statements : **Prevention:**  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.

**Response:**  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.

**Disposal:**  
P501 Dispose of contents/ container to an approved waste disposal plant.

**ALPHA-ARBUTIN****5016372**

Version 1.2

Revision Date 01/27/2022

Date of last issue: 12/05/2018

**Other hazards**

Risk of dust explosion.

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

Molecular formula : C<sub>12</sub>H<sub>16</sub>O<sub>7</sub>

Brief description of the product : Substance

Substance name : 4-hydroxyphenyl- $\alpha$ -D-glucopyranoside

CAS-No. : 84380-01-8

**Hazardous components**

Chemical name	CAS-No.	Concentration (% w/w)
alpha-D-Glucopyranoside, 4-hydroxyphenyl	84380-01-8	>= 90 - <= 100

Actual concentration is withheld as a trade secret

**SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.  
Show this safety data sheet to the doctor in attendance.

If inhaled : Move to fresh air.  
Consult a physician after significant exposure.

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

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 eye irritation persists, consult a specialist.

If swallowed : Rinse mouth with water.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.  
Obtain medical attention.

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 : Water  
Foam

Specific hazards during fire-fighting : None known.

Further information : Consider dust explosion hazard.

**ALPHA-ARBUTIN****5016372**

Version 1.2

Revision Date 01/27/2022

Date of last issue: 12/05/2018

Special protective equipment : In the event of fire, wear self-contained breathing apparatus for firefighters

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Ensure adequate ventilation.  
Avoid dust formation.  
Avoid breathing dust.
- Environmental precautions : Try to prevent the material from entering drains or water courses.
- Methods and materials for containment and cleaning up : Pick up and arrange disposal without creating dust.

**SECTION 7. HANDLING AND STORAGE**

- Advice on protection against fire and explosion : Avoid dust formation.  
Provide appropriate exhaust ventilation at places where dust is formed.  
Take precautionary measures against static discharges.
- Advice on safe handling : Avoid formation of respirable particles.  
Avoid exceeding the given occupational exposure limits (see section 8).  
For personal protection see section 8.  
Smoking, eating and drinking should be prohibited in the application area.
- Conditions for safe storage : To maintain product quality, do not store in heat or direct sunlight.  
  
Keep container tightly closed and dry.

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

Contains no substances with occupational exposure limit values.

**Personal protective equipment**

- Respiratory protection : In the case of dust or aerosol formation use respirator with an approved filter.
- Hand protection  
Remarks : Consider the hazard characteristics of this product and any special workplace conditions when selecting the appropriate type of protective gloves.  
Glove material: for example nitrile rubber
- Eye protection : Safety glasses with side-shields
- Skin and body protection : Choose body protection according to the amount and concentration of the dangerous substance at the work place.

**ALPHA-ARBUTIN****5016372**

Version 1.2

Revision Date 01/27/2022

Date of last issue: 12/05/2018

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.  
Wash hands before breaks and at the end of workday.

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

Appearance : powder

Colour : white - off-white

Odour : none

Odour Threshold : No information available.

pH : 5.0 - 7.0 (1%)

Melting point/range : 202 - 210 °C

Boiling point/boiling range : ca. 284.4 °C (1,021.7 hPa; Tested according to Directive 92/69/EEC.)

Flash point : 560.1 °F (293.4 °C)

Flammability (solid, gas) : not highly flammable (Method: Flammability (solids))  
May form combustible dust concentrations in air.

Vapour pressure : < 0.0001 Pa (25 °C; OECD Test Guideline 104)

Relative vapour density : Not applicable

Relative density : 1.556

Density : 1.47 g/cm<sup>3</sup> (ca. 23.4 °C; OECD Test Guideline 109)

Water solubility : 151 g/l (ca. 20 °C; Tested according to Directive 92/69/EEC.)

Partition coefficient: n-octanol/water : log Pow -1.69 (ca.21 °C; Tested according to Directive 92/69/EEC.)

Auto-ignition temperature : No data available

Thermal decomposition : Decomposes on heating.  
Potential for exothermic hazard

Explosive properties : Not explosive

Oxidizing properties : No data available

**Other information**

Combustibility index for deposited dust : 5 ( 23 °C)

Dust explosion class : St(H)2 (Milled sample, Median value of the tested sample 0.040 mm, Loss on drying 0.6 %; The value was determined in the modified Hartmann tube.)

Minimum ignition energy : 3 - 10 mJ (Milled sample, Median value of the tested sample 0.040 mm, Loss on drying 0.6 %, EN 13821)  
The Minimum ignition energy (MIE) of a dust/air mix depends on the particle size the water content and the temperature of the dust. The finer and the dryer the dust the lower the MIE.

: General remark: The indicated dust explosion characteristics are only valid for this product and are sensitive to the sample's parameters.

**ALPHA-ARBUTIN****5016372**

Version 1.2

Revision Date 01/27/2022

Date of last issue: 12/05/2018

Powder volume resistivity	: 4E+11 Ohmm (Product sample, Median value of the tested sample 0.077 mm, Loss on drying 0.6 %)
Minimum ignition temperature of a dust/air mix	: 440 °C (Median value of the tested sample 0.077 mm) determined in the BAM oven
Molecular weight	: 272.25 g/mol

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	: No hazards to be specially mentioned.
Chemical stability	: Stable under recommended storage conditions.
Possibility of hazardous reactions	: Dust may form explosive mixture in air.
Conditions to avoid	: Heat
Incompatible materials	: Acids and bases Oxidizing agents
Hazardous decomposition products	: No decomposition if used as directed.

**SECTION 11. TOXICOLOGICAL INFORMATION**

Acute oral toxicity	: LD50 (Rat): > 300 - < 500 mg/kg (OECD Test Guideline 423)
Skin irritation	: No skin irritation (Rabbit, OECD Test Guideline 404) Prolonged skin contact may cause skin irritation.  : no phototoxic skin reaction (Guinea pig)
Eye irritation	: slight irritation (Rabbit, OECD Test Guideline 405)  : Dust contact with the eyes can lead to mechanical irritation.
Sensitisation	: Not a skin sensitizer. (Guinea pig, OECD Test Guideline 406)  : no photoallergenic skin reaction (Guinea pig)
Genotoxicity in vitro	: not mutagenic (Ames test, OECD Test Guideline 471)
Genotoxicity in vivo	: not genotoxic (Mouse, Mutagenicity (micronucleus test))
Carcinogenicity	: No indication for carcinogenicity known.
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.

**ALPHA-ARBUTIN****5016372**

Version 1.2

Revision Date 01/27/2022

Date of last issue: 12/05/2018

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.
Reproductive toxicity	: No indication for adverse effects on fertility known.
STOT - single exposure (Acute exposure)	: The substance or mixture is not classified as specific target organ toxicant, single exposure.
STOT - repeated exposure	: This information is not available.
Further information	: The product passes into and partly through the skin of pigs.
Aspiration toxicity	: No aspiration toxicity classification : No aspiration toxicity classification

**SECTION 12. ECOLOGICAL INFORMATION****Toxicity**

Toxicity to daphnia and other aquatic invertebrates : Daphnia magna (Water flea)  
EC50 (48 h) > 100 mg/l  
(OECD Test Guideline 202)

**Persistence and degradability**

Biodegradability : Readily biodegradable.  
81.15 % (28 d)  
(OECD Test Guideline 301F)

**Bioaccumulative potential**

Partition coefficient: n-octanol/water : log Pow -1.69 (ca. 21 °C ; Tested according to Directive 92/69/EEC.)

**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).

**ALPHA-ARBUTIN****5016372**

Version 1.2

Revision Date 01/27/2022

Date of last issue: 12/05/2018

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

---

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.  
Do not dispose of waste into sewer.  
Offer surplus and non-recyclable solutions to a licensed disposal company.

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

Contaminated packaging : Dispose of as unused product.  
Do not re-use empty containers.

---

**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

---

**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** : Acute toxicity (any route of exposure)

**ALPHA-ARBUTIN****5016372**

Version 1.2

Revision Date 01/27/2022

Date of last issue: 12/05/2018

**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 Know**

alpha-D-Glucopyranoside, 4-hydroxyphenyl

84380-01-8

**Maine Chemicals of High Concern**

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.

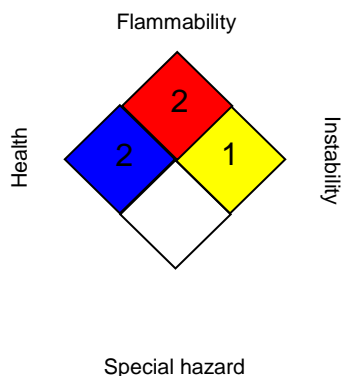


**ALPHA-ARBUTIN****5016372**

Version 1.2

Revision Date 01/27/2022

Date of last issue: 12/05/2018

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

<b>HEALTH</b>	/	<b>2</b>
<b>FLAMMABILITY</b>		<b>1</b>
<b>PHYSICAL HAZARD</b>		<b>0</b>

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 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 Occupation-

**ALPHA-ARBUTIN****5016372**

Version 1.2

Revision Date 01/27/2022

Date of last issue: 12/05/2018

al 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.

Revision Date : 01/27/2022

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.

US / EN