

**ALPAFLOR® MARRUBIUM AO****5037522**

Version 4.1

Revision Date 09/30/2024

Date of last issue: 08/03/2017

**SECTION 1. IDENTIFICATION**

Product name : ALPAFLOR® MARRUBIUM AO

**Manufacturer or supplier's details**

Company name of supplier : DSM Nutritional Products LLC

Address : 250 Plainsboro Rd  
Plainsboro NJ 08536

Telephone : (609) 452-1000

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**

No hazard pictogram, no signal word, no hazard statement(s), no precautionary statement(s) required

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**Brief description of the product : Mixture (preparation) containing active ingredients and auxiliary substances  
Plant extract**Hazardous components**

| Chemical name | CAS-No. | Concentration (% w/w) |
|---------------|---------|-----------------------|
| glycerol      | 56-81-5 | >= 50 - < 70          |

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 : None known.

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**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.

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**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.

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**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**

| Components | CAS-No. | Value type<br>(Form of exposure) | Control parameters /<br>Permissible concentration | Basis    |
|------------|---------|----------------------------------|---------------------------------------------------|----------|
| glycerol   | 56-81-5 | TWA (mist, respirable fraction)  | 5 mg/m <sup>3</sup>                               | OSHA Z-1 |
|            |         | TWA (mist, total dust)           | 15 mg/m <sup>3</sup>                              | OSHA Z-1 |

**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 : liquid, viscous
- Colour : yellow - brown
- Odour : characteristic
- Odour Threshold : No information available.
- pH : 3.5 - 5.0
- Melting point/range : not determined
- Boiling point/boiling range : ca. 110 - 115 °C (calculated value)
- Flash point : ca. 403 °F (206 °C) (closed cup, calculated value)
- Evaporation rate : not determined
- Lower explosion limit : not determined
- Upper explosion limit : not determined
- Vapour pressure : not determined
- Relative vapour density : Not applicable
- Relative density : 1.10 - 1.25 (20 °C)
- Water solubility : soluble
- Solubility in other solvents : Oils and fats: insoluble
- Partition coefficient: n-octanol/water : Not applicable
- Self-ignition : No data available
- Auto-ignition temperature : ca. 813 °F (434 °C)  
Test performed using a similar product.

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|                           |                                                             |
|---------------------------|-------------------------------------------------------------|
| Decomposition temperature | : Decomposes on heating.<br>Potential for exothermic hazard |
| Viscosity, kinematic      | : not determined                                            |

**Other information**

|                      |                         |
|----------------------|-------------------------|
| Explosive properties | : Not explosive         |
| Oxidizing properties | : No data available     |
| Refractive index     | : 1.418 - 1.438 (25 °C) |

**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<br>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<br>(Calculation method)                                                                                       |
| Skin irritation       | : No skin irritation (Human, Patch Test 48 Hrs.)<br>: Prolonged skin contact may cause skin irritation.                                                 |
| Eye irritation        | : No data available                                                                                                                                     |
| Sensitisation         | : No data available                                                                                                                                     |
| Genotoxicity in vitro | : No data available                                                                                                                                     |
| Genotoxicity in vivo  | : No indication for mutagenicity known.                                                                                                                 |
| 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                                                                                          |

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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 : This information is not available.

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.

Aspiration toxicity : No aspiration toxicity classification

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

No data is available on the product itself.

**Persistence and degradability**

Biodegradability : The organic components of the product are biodegradable.

**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****Product:**

Ozone-Depletion Potential : 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.

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**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

**Special precautions for user**

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

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**SECTION 15. REGULATORY INFORMATION****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.

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**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).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

|          |         |                |
|----------|---------|----------------|
| glycerol | 56-81-5 | >= 50 - < 70 % |
|----------|---------|----------------|

**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**

|          |         |
|----------|---------|
| glycerol | 56-81-5 |
|----------|---------|

**Pennsylvania Right To Know**

|                 |            |
|-----------------|------------|
| glycerol        | 56-81-5    |
| water           | 7732-18-5  |
| Horehound, ext. | 84696-20-8 |

**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

**The components of this product are reported in the following inventories:**

|       |                                                                                                                    |
|-------|--------------------------------------------------------------------------------------------------------------------|
| TCSI  | : On the inventory, or in compliance with the inventory                                                            |
| TSCA  | : Product contains substance(s) not listed on TSCA inventory.                                                      |
| AIIC  | : On the inventory, or in compliance with the inventory                                                            |
| DSL   | : This product contains the following components that are not on the Canadian DSL nor NDSL.<br><br>Horehound, ext. |
| ENCS  | : Not in compliance with the inventory                                                                             |
| ISHL  | : On the inventory, or in compliance with the inventory                                                            |
| KECI  | : Not in compliance with the inventory                                                                             |
| PICCS | : On the inventory, or in compliance with the inventory                                                            |
| IECSC | : Not in compliance with the inventory                                                                             |

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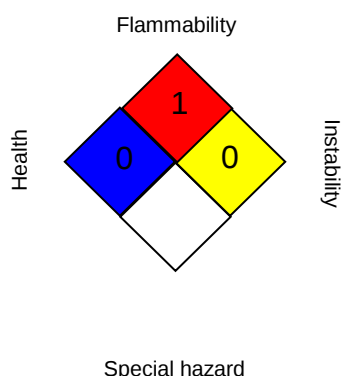
NZIoC : On the inventory, or in compliance with the inventory

TECI : Not in compliance with the inventory

**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:**

|                        |          |          |
|------------------------|----------|----------|
| <b>HEALTH</b>          | <b>/</b> | <b>0</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 Develop-

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ment; 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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