Alpha-Arbutin

Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / March 26, 2012 / Rules and Regulation

Revision Date: 08-07-2015
Supersedes: 10-29-2012

1 PRODUCT & COMPANY IDENTIFICATION

<table>
<thead>
<tr>
<th>Product Name:</th>
<th>Alpha-Arbutin</th>
<th>Distributor:</th>
<th>MakingCosmetics, Inc.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Synonyms:</td>
<td>4-Hydroxyphenyl, α-D-glucopyranoside</td>
<td>Address:</td>
<td>10800 231st Way NE Redmond, WA 98053 (USA)</td>
</tr>
<tr>
<td>INCI Name:</td>
<td>Alpha-Arbutin</td>
<td>Phone / Fax:</td>
<td>425-292-9502 / 425-292-9601</td>
</tr>
<tr>
<td>CAS Number:</td>
<td>84380-01-8</td>
<td>Web:</td>
<td><a href="http://www.makingcosmetics.com">www.makingcosmetics.com</a></td>
</tr>
<tr>
<td>Formula:</td>
<td>C_{12}H_{16}O_{7}</td>
<td>Emergency Telephone Number:</td>
<td>1-800-424-9300 (Chemtrec)</td>
</tr>
<tr>
<td>Product Form:</td>
<td>Crystalline powder</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product Use:</td>
<td>Cosmetic use</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

2 HAZARDS IDENTIFICATION

GHS Signal Word: WARNING

GHS Hazard Pictograms: !

GHS Hazard Statements: H302: Harmful if swallowed.

GHS Precautionary Statements: P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Eyes: May be irritant. Inhalation: Not expected to be irritant. Skin: Not expected to be irritant. Ingestion: May be irritant.

NFPA Ratings (704):
- Health: 0 Minimal
- Flammability: 0 Minimal
- Reactivity: 0 Minimal
- Specific Hazard: n/a

3 COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Weight %</th>
<th>Molecular Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha-Arbutin</td>
<td>84380-01-8</td>
<td>90-100%</td>
<td>272.25124 g/mol</td>
</tr>
</tbody>
</table>

4 FIRST AID MEASURES

Eyes: In case of eye contact, rinse with plenty of water and seek medical attention if necessary.

Inhalation: Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.

Skin: Flush with plenty of water and wash using soap.

Ingestion: Harmful if swallowed. Drink fluids to dilute. Do not give milk or alcoholic beverages. Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. Get medical attention if necessary.

5 FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media: May be combustible at high temperature. Use appropriate media (foam, carbon dioxide, dry chemical) for adjacent fire.

Special protective equipment & precautions for firefighters: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

Flash Points: CLOSED CUP: > No data available

Specific hazards arising from the chemical: May emit toxic fumes under fire conditions. See also Stability and Reactivity section.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment & emergency procedures: See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions: Do not flush into surface water or sanitary sewer system. Sweep up and place in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7 HANDLING & STORAGE

Precautions for safe handling: See section 8 for recommendations on the use of personal protective equipment. Keep container closed when not in use.

Conditions for safe storage, incl. any incompatibilities: Protect against light. Store in cool, dry well ventilated area. Keep away from heat and incompatible materials (see section 10 for incompatibilities).

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Component</th>
<th>Exposure Limits</th>
<th>Basis</th>
<th>Entity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alpha-Arbutin</td>
<td>Contains no substances with occupational exposure limit values</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

TWA: Time Weighted Average over 8 hours of work.
TLV: Threshold Limit Value over 8 hours of work.
REL: Recommended Exposure Limit
PEL: Permissible Exposure Limit
STEL: Short Term Exposure Limit during x minutes.
IDLH: Immediately Dangerous to Life or Health
WEEL: Workplace Environmental Exposure Levels
CEIL: Ceiling

Personal Protection:
Eyes: Not required, but wear chemical safety glasses or goggles.
Inhalation: In the case of dust or aerosol formation use respirator with an approved filter
Body: Use gloves. Slip proof shoes may be worn where spills may occur
Other: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance, Physical State: Powder
Odor: None
Taste: No data available
Color: White, off-white
Molecular Weight: 272.25 g/mol
pH (1% sol. in water): 3.5-6.5
Boiling Point: >285°C (545°F)
Melting Point: >201°C (393.8°F)
Flash Point: Not applicable
Specific Gravity: No data available

Vapor Pressure: No data available
Vapor Density: No data available
Evaporation Rate: No data available
Upper/lower Explosive Limit: Not explosive
Solubility: 151g/l at 20°C (pH 5.8)
Flammability: Not highly flammable
May form combustible dust concentrations in air

10 STABILITY AND REACTIVITY

Reactivity: No hazards to be specially mentioned
Chemical Stability: Product is stable
Hazardous Polymerization: No data available
Conditions to Avoid: Heat
Incompatible Materials: Strong acids, bases, and oxidizing agents
Hazardous Decomposition Products: None if used as directed

11 TOXICOLOGICAL INFORMATION

Acute Oral Toxicity: LD50 (Rat): >300-<500mg/kg
Skin: No skin irritation (Rabbit, OECD Test Guideline 404)
Prolonged skin contact may cause skin irritation
No phototoxic skin reaction (Guinea pig)

Eyes: Slight irritation (Rabbit, OECD Test Guideline 405)

Sensitization: The results of a test on guinea pigs showed this substance to be a weak skin sensitizer. (Guinea
pig, OECD Test Guideline 406)
No photoallergenic skin reaction (Guinea pig)
Respiratory: No respiratory toxicity classification
Ingestion: No data available
Carcinogenicity: No indication for carcinogenicity known
Teratogenicity: Not available
Genotoxicity in vitro: Not mutagenic (Ames test, OECD Test Guideline 471)
Genotoxicity in vivo: Not genotoxic (Mouse, Mutagenicity (micronucleus test))
Specific Target Organ Toxicity: Acute Exposure: Not classified as toxic, Repeated Exposure: No data available
Reproductive Toxicity: No indication for adverse effects on fertility known
Further Information: The product passes into and partly through the skin of pigs

12 ECOLOGICAL INFORMATION

Ecotoxicity
Aquatic Vertebrate: No data available
Aquatic Invertebrate: No data available
Terrestrial: No data available
Persistence and Degradability: Readily biodegradable. 81.15% (28 d)
Bioaccumulative Potential: Partition coefficient: n-octanol/water: log Pow -1.69 (21°C)
Mobility in Soil: No data available
PBT and vPvB Assessment: Does not fulfill the PBT and vPvB criteria
Other Adverse Effects: 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).

13 DISPOSAL CONSIDERATIONS

Waste Residues: Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
Product Containers: Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.
The information in section 13 is for the product as shipped. Use and/or alterations to the product may change the characteristics of the material and alter the waste classification and proper disposal methods.

14 TRANSPORT INFORMATION

DOT (Dept. of Transportation, USA): Not regulated
TDG (Transportation of Dangerous Goods, Canada): Not regulated
IMDG (International Maritime Dangerous Goods): Not regulated
IATA (International Air Transport Association): Not regulated
ICAO (International Civil Aviation Organization): Not regulated

15 REGULATORY INFORMATION

TSCA Inventory Status: Not relevant
DSCL (EEC): No data available
WHMIS (Canada): No data available

16 OTHER INFORMATION

Revision Date: 08-07-2015
Compliance: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200
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