Phenylbenzimidazole Sulfonic Acid
Material Safety Data Sheet (Created 1-30-2014)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name: Phenylbenzimidazole Sulfonic Acid
INCI Name: Phenylbenzimidazole Sulfonic Acid
Chemical Name: 2-Phenyl-1H-benzimidazole-5-sulfonic acid
CAS Number: 27503-81-7
Synonyms: 2-Phenyl-1H-benzimidazole-5-sulfonic acid
Company Name: MakingCosmetics Inc.
Company Address: 35318 SE Center Street, Snoqualmie WA 98065 (USA), Phone 425-292-9502

2. Hazards identification

Emergency Overview

Form crystalline powder
Color white to off-white
Odor none to faint

Potential Health Effects
- Exposure: Inhalation, Ingestion, Skin contact, Eye contact
- Acute Effects: May cause eye irritation., May cause skin irritation.
- Chronic Effects: No adverse effects known
- Carcinogenicity: not listed by NTP, IARC or OSHA

3. Composition/Information on ingredients

Characterization organic acid with high radiation absorption in the UV-B range
Chemical name - 2-Phenyl-1H-benzimidazole-5-sulfonic acid
Percentage > 98 %

Percentage ≥97 %

MakingCosmetics.com Inc.
35318 SE Center Street, Snoqualmie, WA 98065
Phone 425-292-9502 Fax 425-292-9601 www.makingcosmetics.com
### 4. First-aid measures

<table>
<thead>
<tr>
<th>Eye contact</th>
<th>- rinse immediately with tap water for 10 minutes - open eyelids forcibly - consult physician</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skin contact</td>
<td>- brush off - remove contaminated clothes, wash affected skin with water and soap - do not use any solvents</td>
</tr>
<tr>
<td>Inhalation</td>
<td>- remove the casualty to fresh air and keep him/her calm - get medical treatment</td>
</tr>
<tr>
<td>Note to physician</td>
<td>- treat symptomatically</td>
</tr>
</tbody>
</table>

### 5. Fire-fighting measures

| Suitable extinguishing media | - water spray jet, dry powder, foam, carbon dioxide |
| Flash point (liquid)         | not applicable                                      |
| Specific hazards             | - formation of toxic and corrosive combustion gases (ammonia, hydrogen cyanide, sulphur oxides, nitrogen oxides) possible |
| Protection of fire-fighters   | - precipitate gases/vapours/mists with water spray |

### 6. Accidental release measures

| Environmental protection    | - do not allow to enter drains or waterways |
| Methods for cleaning up     | - collect solids (avoid dust formation) and hand over to waste removal |
### 7. Handling and storage

#### Handling
- Technical measures:
  - processing in closed systems, if possible superposed by inert gas (e.g., nitrogen)
  - local exhaust ventilation necessary
  - take precautionary measures against electrostatic charging
  - avoid dust formation; consider deflagration hazard
- Suitable materials:
  - stainless steel, polyethylene, enamel

#### Storage
- Storage conditions:
  - protected from light
  - room temperature
- Validity:
  - 24 months, < 25 °C, in the unopened original container, see "best use before" date stated on the label
- Packaging materials:
  - impervious to light
  - tightly closing; material: coated steel (protective lacquer), stainless steel (lined with polyethylene bag), dark glass, polyethylene

### 8. Exposure controls/Personal protection

#### Engineering Measures
- see 7.

#### Monitoring
- Analytics:
  - sampling on glass fibre filter and gravimetric or chemical determination

#### Personal protective equipment
- Respiratory protection:
  - respiratory protection not necessary during normal operations
  - in case of very high dust concentrations: particle mask or respirator with independent air supply
- Hand protection:
  - protective gloves (e.g., made of neoprene, nitrile or butyl rubber)
- Eye protection:
  - safety glasses

### 9. Physical and chemical properties

- Color: white to off-white
- Form: crystalline powder
- Odor: none to faint
- Molecular mass: 274.30 g/mol
### Empirical formula
- \( \text{C}_{13}\text{H}_{10}\text{O}_{3}\text{N}_{2}\text{S} \)

### Bulk density
- \( \sim 0.244 \text{ g/cm}^3 \)

### Solubility
- 300 mg/l, water (25 °C)
  - as a free acid pract. insoluble, water
  - water soluble as salt, water
  - water soluble as salt, ethanol-water mixtures

### Partition coefficient
- \( \log P_{ow} 1.8 \) (octanol/water)

### pH value (20 °C)
- 5.0 (1 g/l suspension in water)

### Melting temperature
- > 360 °C

### Note
- the free acid must be converted into a salt using a suitable base prior to dissolution in water
- slightly hygroscopic

## 10. Stability and reactivity

### Stability
- stable under the conditions mentioned in chapter 7

### Conditions to avoid
- light
- heat

### Hazardous decomposition products
- sulfurous acid

### Note
- acidic conditions (pH < 6.5) in aqueous solutions of a salt of Parsol HS cause precipitation of the free acid form

## 11. Toxicological information

### Acute toxicity
- LD\(_{50}\) > 5'000 mg/kg (oral, rat)
- LD\(_{50}\) > 6'600 mg/kg (oral, mouse); as the sodium salt
- LD\(_{50}\) > 3'000 mg/kg (dermal, rat)

### Local effects
- skin: not phototoxic (guinea pig); 5% solution
- skin: non-irritant (rabbit); 10% solution (sodium salt)
- eye: non-irritant (rabbit); 10% solution (sodium salt)

### Sensitization
- non-sensitizing (man); 10% solution (sodium salt)
- not photoallergenic (guinea pig); 5% solution

### Subchronic toxicity
- NOEL 1000 mg/kg/d (oral, rat; 56 d)

### Mutagenicity
- not mutagenic (various in vitro test systems)
- not photomutagenic (various in vitro test systems)

### Note
- no toxic effects have been observed during occupational handling
12. Ecological information

<table>
<thead>
<tr>
<th>Inherent biodegradability</th>
<th>- not inherently biodegradable</th>
</tr>
</thead>
</table>
| Ecotoxicity               | - barely toxic for fish (unspecified)  
                          | LC₉₀ > 1000 mg/l  
                          | (OECD No. 203)       |
|                           | - barely toxic for planktonic crustaceans (nominal concentration  
                          | > 100 mg/l) (Daphnia magna)  
                          | EC₅₀ > 10000 mg/l     |
|                           | (OECD No. 202)         |
|                           | - barely toxic for fish (nominal concentration > 100 mg/l) (zebrafish)  
                          | LC₉₀ > 10000 mg/l  |
|                           | - barely toxic for microorganisms (nominal concentration > 100 mg/l)  
                          | (activated sludge)  
                          | EC₅₀ > 10000 mg/l  |

| Air pollution            | - observe local/national regulations |

13. Disposal considerations

| Waste from residues      | - incinerate in qualified installation with flue gas scrubbing  
                          | - observe local/national regulations regarding waste disposal |
| RCRA waste               | - not regulated under RCRA |

14. Transport information

| DOT/TDG Remark:          | - Not regulated for transport under DOT, TDG, IATA, or IMDG. |
| Note                     | - not classified as hazardous under DOT, IATA, IMDG |


15. Regulatory information

US Regulations
- Law: hazardous chemical reporting: community right-to-know
- Common name: SARA title 312
- Agency: Environmental Protection Agency EPA
- Criteria met: non-hazardous

US and CAN hazard classification
- No components are listed in the WHMIS IDL.
- This product is identified on the Canadian Domestic Substance List or the Non-Domestic Substance List.
- This product is not considered hazardous under the criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard) and is not a controlled product under the Canadian Controlled Products Act.
- None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

TSCA Status
- On TSCA inventory

Reporting Requirements
- The United States Environmental Protection Agency (USEPA) has not established a Reportable Quantity (RQ) for releases of this material.
- In New Jersey, report all releases which are likely to endanger the public health, harm the environment or cause a complaint to the NJDEP Hotline (1-877-WARN-DEP) and to local officials.
- State and local regulations vary and may impose additional reporting requirements.

16. Other information

Canada update
- This MSDS has been reviewed on 11/21/2006 for compliance with Canadian regulation

Note
- GR safetylab test result 91-059

Edition documentation
- Changes from previous version in sections 9

Disclaimer: This 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 other process. Such information is to be the best of the company’s knowledge and believed accurate and reliable as of the date indicated. However, no representation, warranty or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness and we assume no responsibility for any loss, damage or expense, direct or consequential, arising out of use. It is the user’s responsibility to satisfy himself as to the suitableness & completeness of such information for his own particular use.