

## Material Safety Data Sheet

### Arbutin

#### Section 1: Identification of substance

**Product name:** Arbutin  
**CAS#:** 497-76-7  
**Chemical formula:** C<sub>12</sub>H<sub>16</sub>O<sub>7</sub>  
**RTECS:** CE8863000  
**Manufacturer/Supplier:**  
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#### Section 2: Composition/Data on components

**Composition:** 4-Hydroxyphenyl-beta-D-glucopyranoside (CAS#: 497-76-7): 100%  
**EINECS number:** 207-850-3

#### Section 3: Hazards identification

**Hazard description:** Hazardous in case of eye contact (irritant). Slightly hazardous in case of inhalation (lung irritant). Non-irritant for skin.  
**Information pertaining to particular dangers for man and environment:** Not available  
**HMIS:**  
Health Hazard: 1  
Fire Hazard: 1  
Reactivity: 0  
Personal Protection: E  
**NFPA:**  
Health: 1  
Flammability: 1  
Reactivity: 0

#### Section 4: First aid measures

**After inhalation:**  
Supply Fresh air. If required, provide artificial respiration. Keep patient warm.  
Seek immediate medical advice.  
**After serious inhalation:** Not available.  
**After skin contact:**  
Wash with soap and water. Get medical attention develops.  
Cold water may be used.  
**After serious skin contact:** Not available.  
**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.  
**After ingestion:** Do not vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.  
**After serious ingestion:** Not available.

**Section 5: Fire fighting measures*****Suitable extinguishing agents:***

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

***Special hazards caused by the material, its products of combustion or resulting gases:***

In case of fire, the following can be released: Carbon monoxide and carbon dioxide.

***Protective equipment:***

Wear self-contained respirator.

Wear fully protective impervious suit.

**Section 6: Accidental release measures*****Person-related safety precautions:***

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation.

***Measures for environmental protection:***

Do not allow material to be released to the environment without proper governmental permits.

***Measures for cleaning/collecting:*** Pick up mechanically.

***Additional information:***

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment..

See Section 13 for disposal information.

**Section 7: Handling and storage*****Handling:******Information for safe handling:***

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

No special precautions are necessary if used correctly.

***Information about protection against explosions and fires:*** Keep ignition sources away.

***Storage:***

***Requirements to be met by storerooms and receptacles:*** No special requirements.

***Information about storage in one common storage facility:*** Store away from oxidizing agents.

***Further information about storage conditions:***

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

**Section 8: Exposure controls and personal protection*****Additional information about design of technical systems:***

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

***Components with limit values that require monitoring at the workplace:*** Not required.

***Additional information:*** No data.

***Personal protection equipment:******General protective and hygienic measures:***

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

***Breathing equipment:*** Use suitable respirator when high concentrations are present.

***Protection of hands:*** Check protective gloves prior to each use for their proper condition.

***Eye protection:*** safety glasses.

***Body protection:*** Protective work clothing.

## Section 9: Physical and chemical properties

### General Information:

**Form:** Crystalline powder.

**Color:** White.

**Odor:** Not available.

**Molecular weight:** 272.26 g/mole.

### Change in condition:

**Melting point/Melting range:** 198.5~201.5°C.

**Boiling point/Boiling range:** Not available.

**Sublimation temperature / start:** Not available.

**pH (1% soln/water):** 5.0 ~ 7.0

**Flash point:** Not available.

**Ignition temperature:** Not available.

**Decomposition temperature:** Not available.

**Danger of explosion:** Product does not present an explosion hazard.

### Explosion limits:

**Lower:** Not available.

**Upper:** Not available.

**Vapor pressure:** Not available.

**Density:** Not available.

**Solubility:** Soluble in water, methanol or alcohol. Partially soluble in cold water. Insoluble in aether, chloroform or benzene.

## Section 10: Stability and reactivity

### Stability:

The product is stable, but it is unstable in acidic aqueous solution.

Materials to avoid: Strong oxidizing agents.

### Thermal decomposition / conditions to be avoided:

Decomposition will not occur if used and stored according to specifications.

**Materials to be avoided:** Oxidizing agents.

**Corrosivity:** Non-corrosive in presence of glass.

**Polymerization:** Will not occur.

**Dangerous reactions:** No dangerous reactions know.

**Dangerous products of decomposition:** Carbon monoxide and carbon dioxide.

## Section 11: Toxicological information

### Routes of entry:

Absorbed through skin, eye contact, inhalation, ingestion.

### Toxicity to animals:

LD<sub>50</sub>: Not available.

LC<sub>50</sub>: Not available.

### Chronic exposure - reproductive hazard:

**Reproductive Effects (Oral, 13600 mg/kg, rat, 14day pre/20day preg):**

Effects on embryo or fetus: fetotoxicity (except death, e.g., stunted fetus).

Maternal effects: Ovaries, fallopian tubes.

### Chronic effects on humans:

**Carcinogenic effects:** Not available.

**Mutagenic effects:** Not available.

**Teratogenic effects:** Not available.

**Developmental toxicity:** Classified reproductive system / toxin / female [Suspected].

Repeated or prolonged exposure is not known to aggravate medical condition.

**Special remarks on toxicity to animals:** Not available.

**Special remarks on Chronic effects on humans:** Not available.

**Special remarks on other toxic effects on humans:** Not available.

### Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

## Section 12: Ecological information

### **General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water cause or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

### **Toxicity of the products of biodegradation:**

The product itself and its products of degradation are not toxic.

**Special remarks on the products of biodegradation:** Not available.

## Section 13: Disposal considerations

### **Product:**

**Recommendation:** Consult state, local or national regulations to ensure proper disposal.

### **Uncleaned packagings:**

**Recommendation:** Disposal must be made according to official regulations.

**Recommended cleansing agent:** Water, if necessary with cleansing agents.

## Section 14: Transport information

Not a hazardous material for transportation.

### **DOT regulations:**

**Hazard class:** None

**Land transport ADR/RID (cross-border):**

**ADR/RID class:** None

**Maritime transport IMDG:**

**IMDG class:** None

**Air transport ICAO-TI and IATA-DGR:**

**ICAO/IATA class:** None

**Transport/Additional information:** Not dangerous according to the above specifications.

## Section 15: Regulations

**Product related hazard informations:** Observe the general safety regulations when handling chemicals.

### **National regulations:**

This product is not listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical Substance Inventory.

Some or all of the components of this product are not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

The national regulations of this product are not available in other countries.

**Information about limitation of use:** For use only by technically qualified individuals.

## Section 16: Other information

Created date: 4/24/2008 by Tianjin YR Chemspec Technology Co., Ltd.

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The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.