Material Safety Data Sheet
Dodecanedioic Acid

Section 1: Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Product Name: Dodecanedioic Acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical Name: Dodecanedioic Acid</td>
</tr>
<tr>
<td>CAS No.: 693-23-2</td>
</tr>
<tr>
<td>EINECS No.: 211-746-3</td>
</tr>
<tr>
<td>Customs Tariff No.: 29171900</td>
</tr>
<tr>
<td>Synonym Name: 1,12-Dodecanedioic acid</td>
</tr>
<tr>
<td>Chemical Formula: HOOC(CH₂)₁₀COOH</td>
</tr>
</tbody>
</table>

Contact Information:

Chemtrade International
Rm. 201, Unit 3, Building 8, Shijia Garden, No. 93, Xiangjiang Road, Qingdao Development Zone, Qingdao, Shandong, China 266555

International Sales:
Tel: 0086-532-86893005
Fax: 0086-532-86893005

Section 2: Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS No.</th>
<th>EINECS No.</th>
<th>by weight%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dodecanedioic Acid</td>
<td>693-23-2</td>
<td>211-746-3</td>
<td>99.0%</td>
</tr>
</tbody>
</table>

Toxicological Data on Ingredients:
Risk Phrases: R 36/37/38
Hazard Symbol: Not listed

Section 3: Hazards Identification

Appearance: white powder or flake. Warning! Causes eye and skin irritation. May cause digestive tract irritation. Causes respiratory tract irritation. Irritant.
Target Organs: No data found.

Potential Health Effects
Eye: Causes eye irritation. May cause chemical conjunctivitis.
Skin: Causes skin irritation.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.
Inhalation: Causes respiratory tract irritation. Can produce delayed pulmonary edema.
Chronic: Effects may be delayed.

Section 4: First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.
Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation. If breathing has ceased apply artificial respiration using oxygen and a suitable mechanical device such as a bag and a mask.
Notes to Physician: Treat symptomatically and supportively.
### Section 5: Fire and Explosion Data

**General Information:** As in any fire, wear a self-contained breathing apparatus in pressure-demand, and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Runoff from fire control or dilution water may cause pollution.

**Extinguishing Media:** In case of fire, use water, dry chemical, chemical foam, or alcohol-resistant foam. Use agent most appropriate to extinguish fire.

**Flash Point:** Not applicable.

**Auto-ignition Temperature:** Not applicable.

Explosion Limits, Lower: Not available.

Upper: Not available.

**NFPA Rating:** (estimated) Health: 2; Flammability: 0; Instability: 0

### Section 6: Accidental Release Measures

Take up dry and fill into a plastic bag or closable container.

### Section 7: Handling and Storage

Keep bags dry and do not allow the product temperature to exceed 50 deg C.

Storage period 24 months.

### Section 8: Exposure Controls/Personal Protection

**CONNECTION:** No any special demand.

**VENTILATION:** No any special demand, just keeping dryness.

**BREATH PROTECTION MEASURE:** Gauze mask.

**EYES PROTECTION MEASURE:** Protection glasses.

**SKINS:** Connecting in hand for a long time, the worker must wear general gloves.

### Section 9: Physical and Chemical Properties

**Appearance:** White powder

**Freezing/Melting Point:** 126.00-132.00 deg C

**Molecular Formula:** C_{12}H_{22}O_{4}

**Molecular Weight:** 230

### Section 10: Stability and Reactivity Data

Keeping the product from the following materials: alkaline material in liquid and organic solvent. After decomposing or polymerizing, it has no reaction at normal temperature and pressure.

### Section 11: Toxicological Information
Section 12: Ecological Information

No information available.

Section 13: Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

**RCRA P-Series:** None listed.
**RCRA U-Series:** None listed.

Section 14: Transport Information

Not dangerous cargo. Keep dry. Avoid heat above 50 deg C.

Section 15: Other Regulatory Information

Labeling in accordance with the EES directives:
**R 36/37/38:** Irritating to eyes, respiratory system and skin.
**S 24/25:** Avoid contact with skin and eyes.

Section 16: Other Information

Text of all R phrases referred to in sections 2 and 3.
**R-phrases:** see section 15
**Product Use:**
Top-grade essence, perfume and artificial musk-T, packing material for foodstuff, also main material for nylon 1313.

The information above is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The above details do not imply any guarantee concerning composition, properties or performance. Users should make their own investigations to determine the suitability of the information for their particular purposes.

Revised version dated: June 1, 2005