### Section 1. Chemical Product and Company Identification

<table>
<thead>
<tr>
<th>Common Name/Trade Name</th>
<th>Adipic acid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturer</td>
<td>SPECTRUM LABORATORY PRODUCTS INC.</td>
</tr>
<tr>
<td>14422 S. SAN PEDRO STREET</td>
<td></td>
</tr>
<tr>
<td>GARDENA, CA 90248</td>
<td></td>
</tr>
<tr>
<td>Commercial Name(s)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Synonym</td>
<td>Hexanedioic acid; 1,4-Butane Dicarboxylic Acid</td>
</tr>
<tr>
<td>Chemical Name</td>
<td>Adipic Acid</td>
</tr>
<tr>
<td>Chemical Family</td>
<td>Not available.</td>
</tr>
<tr>
<td>Chemical Formula</td>
<td>HOOC(CH2)4COOH</td>
</tr>
</tbody>
</table>

#### METADATA
- **Catalog Number(s).** YY1633, AD130
- **CAS#** 124-04-9
- **RTECS** AU8400000
- **TSCA** TSCA 8(b) inventory: Adipic acid
- **CI#** Not available.

#### IN CASE OF EMERGENCY
- **CHEMTREC (24hr) 800-424-9300**
- **CALL (310) 516-8000**

### Section 2. Composition and Information on Ingredients

<table>
<thead>
<tr>
<th>Name</th>
<th>CAS #</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
<th>CEIL (mg/m³)</th>
<th>% by Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>1) Adipic acid</td>
<td>124-04-9</td>
<td>5</td>
<td></td>
<td>100</td>
<td></td>
</tr>
</tbody>
</table>

#### Toxicological Data on Ingredients
- **Adipic acid:**
  - **ORAL (LD50):** Acute: >11000 mg/kg [Rat]. 1900 mg/kg [Mouse]. >11000 mg/kg [Rabbit].

### Section 3. Hazards Identification

#### Potential Acute Health Effects
Hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, of inhalation.

#### Potential Chronic Health Effects
Slightly hazardous in case of inhalation (lung sensitizer).
- **CARCINOGENIC EFFECTS:** Not available.
- **MUTAGENIC EFFECTS:** Not available.
- **TERATOGENIC EFFECTS:** Not available.
- **DEVELOPMENTAL TOXICITY:** Not available.

The substance may be toxic to the nervous system, gastrointestinal tract. Repeated or prolonged exposure to the substance can produce target organs damage.

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**Continued on Next Page**
### Section 4. First Aid Measures

**Eye Contact**
Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention.

**Skin Contact**
In case of contact, immediately flush skin with plenty of water. Cover the irritated skin with an emollient. Remove contaminated clothing and shoes. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention.

**Serious Skin Contact**
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

**Inhalation**
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

**Serious Inhalation**
Not available.

**Ingestion**
Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if symptoms appear.

**Serious Ingestion**
Not available.

### Section 5. Fire and Explosion Data

**Flammability of the Product**
May be combustible at high temperature.

**Auto-Ignition Temperature**
420°C (788°F)

**Flash Points**
CLOSED CUP: 196°C (384.8°F).

**Flammable Limits**
Not available.

**Products of Combustion**
These products are carbon oxides (CO, CO2).

**Fire Hazards in Presence of Various Substances**
Slightly flammable to flammable in presence of heat. Non-flammable in presence of shocks.

**Explosion Hazards in Presence of Various Substances**
Risks of explosion of the product in presence of mechanical impact: Not available. Slightly explosive in presence of open flames and sparks, of heat.

**Fire Fighting Media and Instructions**
SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.

**Special Remarks on Fire Hazards**
As with most organic solids, fire is possible at elevated temperatures Material in powder form, capable of creating a dust explosion.

**Special Remarks on Explosion Hazards**
Dust generation can form an explosive mixture if dispersed in a sufficient quantity of air.

### Section 6. Accidental Release Measures

**Small Spill**
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.

**Large Spill**
Use a shovel to put the material into a convenient waste disposal container. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

### Section 7. Handling and Storage

**Precautions**
Keep away from heat. Keep away from sources of ignition. =Do not ingest. Do not breathe dust. Wear suitable protective clothing. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatables such as oxidizing agents.

**Storage**
Keep container tightly closed. Keep container in a cool, well-ventilated area.

Continued on Next Page
Section 8. Exposure Controls/Personal Protection

**Engineering Controls**
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Personal Protection**
Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

**Personal Protection in Case of a Large Spill**
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

**Exposure Limits**
TWA: 5 (mg/m³) from ACGIH (TLV) [United States] Inhalation
Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical state and appearance</th>
<th>Odor</th>
<th>Odorless.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Molecular Weight</td>
<td>Taste</td>
<td>Tart</td>
</tr>
<tr>
<td>pH (1% soln/water)</td>
<td>Color</td>
<td>White.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melting Point</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Critical Temperature</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specific Gravity</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vapor Density</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Volatility</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water/Oil Dist. Coeff.</td>
<td></td>
<td>The product is equally soluble in oil and water; log(oil/water) = 0.1</td>
</tr>
<tr>
<td>Ionicity (in Water)</td>
<td></td>
<td>Not available.</td>
</tr>
<tr>
<td>Dispersion Properties</td>
<td></td>
<td>See solubility in water, methanol, acetone.</td>
</tr>
<tr>
<td>Solubility</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>


Section 10. Stability and Reactivity Data

<table>
<thead>
<tr>
<th>Stability</th>
<th>The product is stable.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Instability Temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Conditions of Instability</td>
<td>Excess heat, excess dust generation, ignition sources, incompatible materials</td>
</tr>
<tr>
<td>Incompatibility with various substances</td>
<td>Reactive with oxidizing agents.</td>
</tr>
<tr>
<td>Corrosivity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Special Remarks on Reactivity</td>
<td>Not available.</td>
</tr>
<tr>
<td>Special Remarks on Corrosivity</td>
<td>Aqueous solutions of Adipic acid are corrosive</td>
</tr>
<tr>
<td>Polymerization</td>
<td>Will not occur.</td>
</tr>
</tbody>
</table>

Continued on Next Page
### Section 11. Toxicological Information

#### Routes of Entry
Inhalation. Ingestion.

#### Toxicity to Animals
Acute oral toxicity (LD50): 1900 mg/kg [Mouse].

#### Chronic Effects on Humans
May cause damage to the following organs: the nervous system, gastrointestinal tract.

#### Other Toxic Effects on Humans
Hazardous in case of skin contact (irritant), of ingestion, of inhalation.

#### 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
Acute Potential Health Effects:
Skin: Can cause mild skin irritation.
Eyes: Causes moderate eye irritation.
Inhalation: Expected to be a low hazard for usual industrial handling. May cause respiratory tract. Symptoms may include coughing, sneezing, and blood-tinged mucous.
Ingestion: Expected to be a low ingestion hazard if small amounts (less than a mouthful) are ingested. Ingestion of large amounts may cause gastrointestinal tract irritation with hypermotility, and diarrhea. May also affect behavior/central nervous system (somnolence, convulsions), and metabolism, and may cause hemorrhaging.
Chronic Potential Health Effects:
Inhalation: Repeated or prolonged contact by inhalation may cause asthma.
Long term exposure by inhalation or ingestion may also affect the respiratory tract, liver, kidneys, and central nervous system.

### Section 12. Ecological Information

#### Ecotoxicity
Not available.

#### BOD5 and COD
Not available.

#### Products of Biodegradation
Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

#### 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

#### Waste Disposal
Waste must be disposed of in accordance with federal, state and local environmental control regulations.

### Section 14. Transport Information

#### DOT Classification
Not a DOT controlled material (United States).

#### Identification
Not applicable.

#### Special Provisions for Transport
Not applicable.

#### DOT (Pictograms)
![No symbol]
### Federal and State Regulations
- Connecticut hazardous material survey: Adipic acid
- Illinois chemical safety act: Adipic acid
- New York release reporting list: Adipic acid
- Rhode Island RTK hazardous substances: Adipic acid
- Pennsylvania RTK: Adipic acid
- Massachusetts RTK: Adipic acid
- Massachusetts spill list: Adipic acid
- New Jersey: Adipic acid
- New Jersey spill list: Adipic acid
- Louisiana spill reporting: Adipic acid
- TSCA 8(b) inventory: Adipic acid
- CERCLA: Hazardous substances: Adipic acid: 5000 lbs. (2268 kg)

### Other Regulations
- EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances (EINECS No. 204-673-3). Canada: Listed on Canadian Domestic Substance List (DSL).
- China: Listed on National Inventory.
- Japan: Listed on National Inventory (ENCS).
- Korea: Listed on National Inventory (KECI).
- Philippines: Listed on National Inventory (PICCS).
- Australia: Listed on AICS.

### Other Classifications
| WHMIS (Canada) | The classification of this product has not been validated yet by the Service du repertoire toxicologique. However, it might be classified as: CLASS D-2B: Material causing other toxic effects (TOXIC). |
| DSCL (EEC) | R36/38- Irritating to eyes and skin. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37- Wear suitable gloves. |
| HMIS (U.S.A.) | Health Hazard 2 | National Fire Protection Association (U.S.A.) | Flammability 2 |
| | Fire Hazard 1 | | Reactivity 0 |
| | Reactivity 0 | | Specific hazard |

### WHMIS (Canada) (Pictograms)

### DSCL (Europe) (Pictograms)

### TDG (Canada) (Pictograms)

### ADR (Europe) (Pictograms)

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Continued on Next Page
### Protective Equipment

- Gloves.
- Lab coat.
- Dust respirator. Be sure to use an approved/certified respirator or equivalent.
- Splash goggles.

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### Section 16. Other Information

<table>
<thead>
<tr>
<th>MSDS Code</th>
<th>A3290</th>
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<tbody>
<tr>
<td>References</td>
<td>Not available.</td>
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<tr>
<td>Other Special Considerations</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

Validated by Sonia Owen on 4/30/2012.  
Verified by Sonia Owen.  
Printed 4/30/2012.

**CALL (310) 516-8000**

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**Notice to Reader**

All chemicals may pose unknown hazards and should be used with caution. This Material Safety Data Sheet (MSDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this MSDS. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this MSDS is based on technical data judged to be reliable, Spectrum Quality Products, Inc. assumes no responsibility for the completeness or accuracy of the information contained herein.