1. MATERIAL IDENTIFICATION

Product Name: A-661 Hardener

EMERGENCY PHONE: For product emergency involving spill, leak, fire, exposure, or accident call CHEMTREC at (800) 424-9300. For all other inquiries please call Resin Technology Group, LLC. at (508) 230-8070.

2. COMPOSITION

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS No</th>
<th>Percent</th>
<th>TLV-TWA</th>
<th>PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyamide Resin</td>
<td>68410-23-1</td>
<td>80 - 100</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
<tr>
<td>2,4,6 - Tris (Dimethylaminomethyl) phenol</td>
<td>90-72-2</td>
<td>1 - 5</td>
<td>N.E.</td>
<td>N.E.</td>
</tr>
</tbody>
</table>

Abbreviations: N.E.: Not Established; RF: Respirable Fraction; TP: Total Particulate

3. HEALTH HAZARDS IDENTIFICATION

Routes of Exposure: Eyes: Yes Skin: Yes Inhalation: Yes

Eye Contact: May cause severe eye irritation or burns.

Skin Contact: May cause severe skin irritation burns. Contact can cause the development of hypersensitivity (allergic reactions) in susceptible individuals.

Inhalation: Can cause irritation to the nose, throat, and upper respiratory tract. Avoid prolonged or repeated inhalation.

Ingestion: Do not take internally. May cause gastrointestinal irritation or ulceration. May cause burns of the mouth and throat.

4. FIRST AID MEASURES

Eyes: Flush with a steady stream of water for 15 minutes. Obtain prompt medical attention.

Skin: Immediately flush with water for at least 15 minutes. Remove contaminated clothing and shoes. Launder clothes separately before reusing. Obtain immediate medical attention.

Inhalation: Remove to fresh air. Administer oxygen if there is difficulty breathing. Give artificial respiration if breathing has stopped. Obtain medical attention without delay. Under normal conditions, no adverse effects are expected.

Ingestion: If swallowed, DO NOT induce vomiting. Seek immediate medical attention: call a poison control center, emergency room, or physician. Rinse mouth with water and give a large quantity of water or milk.
5. FIRE FIGHTING MEASURES

**FLAMMABLE PROPERTIES**

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Flash Point</td>
<td>300 °F, Test method: Cleveland Open Cup.</td>
</tr>
<tr>
<td>Explosive Limits</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Auto-Ignition Temperature</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Hazardous Combustion Products</td>
<td>May liberate irritating vapors during combustion or decomposition.</td>
</tr>
</tbody>
</table>

**Fire Fighting Instructions:** Fire fighters and others who may be exposed to the products of combustion should be equipped with NIOSH approved positive-pressure self-contained breathing apparatus and full protective clothing.

**Extinguishing Media:** Water spray, carbon dioxide, foam, and dry chemical

6. ACCIDENTAL RELEASE MEASURES

Ventilate area if necessary, evacuate if airborne levels could exceed established limits. Cover spill with an inert absorbent, such as fuller’s earth, clay, or other appropriate absorbent. Place material a suitable container for further handling and disposal. Observe all federal, state, and local reporting regulations regarding material release or spills.

7. HANDLING and STORAGE

Store in a cool, dry, well ventilated area. Avoid contact with eyes, skin, and clothing. Heating can generate vapors, use appropriate ventilation or approved respirators as necessary.

8. EXPOSURE CONTROLS and PERSONNEL PROTECTION

**Engineering Controls:** General ventilation and local exhaust may be required to maintain airborne concentrations below the established exposure limits exposure when generating vapors or mists.

**Respiratory Protection:** Where exposure exceeds established airborne limits, use a NIOSH approved respirator, or a self-contained breathing apparatus, or a supplied air respirator as necessary to control exposure.

**Skin Protection:** Wear impervious gloves and protective clothing as necessary to prevent skin contact.

**Eye Protection:** Wear chemical splash goggles or safety glasses with side shields.

9. PHYSICAL and CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Dark amber</td>
</tr>
<tr>
<td>Odor</td>
<td>Ammoniacal odor</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not established</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.97</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not established</td>
</tr>
<tr>
<td>Vapor Density, (air = 1)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>0</td>
</tr>
<tr>
<td>(N-Butyl acetate = 1)</td>
<td></td>
</tr>
</tbody>
</table>
10. STABILITY and REACTIVITY

Chemical Stability: Stable under normal conditions and use.

Incompatibility: Oxidizers

Conditions to Avoid: Avoid contact with the above incompatible chemicals.

Hazardous Decomposition Products: Oxides of Nitrogen, Smoke, Soot, Carbon Dioxide, Carbon Monoxide.

Hazardous Polymerization: Will not occur

11. TOXICOLOGICAL INFORMATION

This section provides toxicological information with regard to the pure form of the components indicated. This information can be subject to misinterpretation. It is therefore suggested that persons trained in its evaluation interpret this information.

2,4,6 – Tris (Dimethylaminomethyl) phenol:
- LD₅₀ Oral Rat: 1653 mg/kg
- LD₅₀ Dermal Rabbit: 1350 mg/kg
- LC₅₀ Inhalation Rat: > 0.5 mg/L
- Eye Irritation Rabbit: 110 on range of 0 - 110
- Skin Irritation Rabbit: 8 on range of 0 - 8

Causes severe eye and skin irritation or burns. May be harmful if inhaled or swallowed.

Polyamide Resin:
- LD₅₀ Oral Rat: > 16 ml/kg
- LD₅₀ Dermal Rabbit: 6.5 ml/kg
- Eye Irritation Rabbit: 105 on range of 0 - 110
- Skin Irritation Rabbit: 1.2 on range of 0 - 8

Causes gastrointestinal irritation and possibly burns if swallowed. May cause skin and eye irritation. May cause irritation of the respiratory tract.

Note: Due to this product’s physical composition, the release or generation of dust is not expected to occur under normal conditions of use.

12. ECOLOGICAL INFORMATION

No data found.

13. DISPOSAL CONSIDERATIONS

Disposal must be made in accordance with applicable governmental regulations.
14. TRANSPORT INFORMATION

D.O.T. Classification: Not Regulated
Hazard Class: None  UN #: None  PG: None  ERG #: None  Hazard Labels: None

I.A.T.A. Classification: Not Regulated
Hazard Class: None  UN #: None  PG: None  ERG #: None  Hazard Labels: None

15. REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA:
The chemical components of this product are contained on section 8(B) of the chemical substance inventory list (40CFR710).

SARA Title III Information

Section 313 - Toxic Chemicals
Pursuant to section 313 of SARA Title III, this product does not contain a toxic chemical in a concentration in excess of 1 percent of the mixture, or 0.1 percent if the listed chemical is a carcinogen.

Section 302 - Extremely Hazardous Substances
Pursuant to section 302 of SARA title III, this product does not contain an extremely hazardous substance.

Section 311 / 312 - Hazard Categories
Pursuant to section 311/312 of SARA title III, the physical and health hazard categories for this product are as follows:

- Fire Hazard: No
- Reactivity Hazard: No
- Sudden Release of Pressure Hazard: No
- Immediate (Acute) Health Hazard: Yes
- Delayed (Chronic) Health Hazard: No

STATE REGULATIONS / RIGHT TO KNOW

California Proposition 65: This product does not contain any substances known to the state of California to cause cancer, birth defects, or other reproductive harm.

16. OTHER INFORMATION

HMIS Hazards:  Health: 3  Flammability: 1  Reactivity: 0
NFPA Hazards:  Health: 3  Flammability: 1  Reactivity: 0

This information is intended solely for the use of individuals trained in the use of this particular system.

Resin Technology Group, LLC urges each customer or recipient of this MSDS to study it carefully in order to become aware of and understand the hazards associated with the product. The reader should consider consulting reference works or individuals that are experts in ventilation, toxicology, and fire prevention, as necessary or appropriate in order to use and understand the data contained in this MSDS.

To promote safe handling, each customer or recipient should: 1 - notify its employees, agents, contractors, and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety. 2 - furnish this same information to each of its customers for the product. 3 - request its customers to notify their employees, customers, and other users of the product of this information.

The information contained herein is based on the data available to us and is believed to be correct. However, Resin Technology Group, LLC makes no warranty, expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Resin Technology Group, LLC assumes no responsibility for injury from the use of the product described herein.