SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: AS-550 RAPID CURE HARDENER
MSDS Manufacturer Number: AS511H
Manufacturer Name: ITW Polymer Technologies
Address: 130 Commerce Drive
Montgomeryville, PA 18936
General Phone Number: (215) 855-8450
Emergency Phone Number: (215) 855-8450
CHEMTREC: For emergencies in the US, call CHEMTREC: 800-424-9300
Canutec: In Canada, call CANUTEC: (613) 996-6666 (call collect)
MSDS Revision Date: 06/15/2009

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS#</th>
<th>Ingredient Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trimethylhexamethylenediamine (TMD)</td>
<td>25620-58-0</td>
<td>10 - 30 by weight</td>
</tr>
<tr>
<td>Amorphous silicon dioxide</td>
<td>67762-90-7</td>
<td>5 - 10 by weight</td>
</tr>
<tr>
<td>4-Tert-Butylphenol</td>
<td>98-54-4</td>
<td>30 - 60 by weight</td>
</tr>
<tr>
<td>Benzene-1,3-dimethaneamine (MXDA)</td>
<td>1477-55-0</td>
<td>10 - 30 by weight</td>
</tr>
<tr>
<td>Ethylbenzene</td>
<td>100-41-4</td>
<td>0.1 - 1 by weight</td>
</tr>
</tbody>
</table>

SECTION 3 - HAZARDS IDENTIFICATION

Route of Exposure: Eyes. Skin. Inhalation. Ingestion.
Potential Health Effects:
Eye: Can cause severe eye irritation and burns. Eye contact may cause permanent damage or blindness.
Skin: Causes severe skin irritation. May cause permanent skin damage.
Inhalation: Toxic by inhalation. Vapor or mist may cause severe respiratory system irritation.
Ingestion: Causes irritation, a burning sensation of the mouth, throat and gastrointestinal tract and abdominal pain.
Chronic Health Effects: Prolonged skin contact may lead to burning associated with severe reddening, swelling, and possible tissue destruction.
Signs/Symptoms: Overexposure may cause eye watering or discomfort, redness and swelling.
Aggravation of Pre-Existing Conditions: May aggravate pre-existing respiratory disorders, allergy, eczema, or skin conditions.

SECTION 4 - FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of water for at least 15 to 20 minutes. Ensure adequate flushing of the eyes by separating the eyelids with fingers. Get immediate medical attention.
Skin Contact: Immediately wash skin with plenty of soap and water for 15 to 20 minutes, while removing contaminated clothing and shoes. Get medical attention if irritation develops or persists.
Inhalation: If inhaled, remove to fresh air If not breathing, give artificial respiration or give oxygen by trained personnel. Seek immediate medical attention.
Ingestion: If swallowed, do NOT induce vomiting. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

SECTION 5 - FIRE FIGHTING MEASURES

Flash Point: >230 °F
Auto Ignition Temperature: Not determined.
Lower Flammable/Explosive Limit: Not determined.
Upper Flammable/Explosive Limit: Not determined.
Fire Fighting Instructions: Evacuate area of unprotected personnel. Use cold water spray to cool fire exposed containers to minimize risk of rupture. Do not enter confined fire space without full protective gear. If possible, contain fire run-off water.
Extinguishing Media: Use carbon dioxide (CO2) or dry chemical when fighting fires involving this material.
Unsuitable Media: Water or foam may cause frothing.
Protective Equipment: As in any fire, wear Self-Contained Breathing Apparatus (SCBA), MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personnel Precautions: Evacuate area and keep unnecessary and unprotected personnel from entering the spill area.
Environmental Precautions: Avoid runoff into storm sewers, ditches, and waterways.
Spill Cleanup Measures: Absorb spill with inert material (e.g., dry sand or earth), then place in a chemical waste container. Provide ventilation. Clean up spills immediately observing precautions in the protective equipment section. After removal, flush spill area with soap and water to remove trace residue.
Other Precautions: Pump or shovel to storage/salvage vessels.

SECTION 7 - HANDLING and STORAGE

Handling: Use with adequate ventilation. Avoid breathing vapor, aerosol or mist.
Storage: Store in a cool, dry, well ventilated area away from sources of heat and incompatible materials. Keep container tightly closed when not in use. Do not store in reactive metal containers. Keep away from acids, oxidizers.
Special Handling Procedures: Provide appropriate ventilation/respiratory protection against decomposition products (see Section 10) during welding/flame cutting operations and to protect against dust during sanding/grinding of cured product.
Hygiene Practices: Wash thoroughly after handling.

SECTION 8 - EXPOSURE CONTROLS, PERSONAL PROTECTION - EXPOSURE GUIDELINES

Engineering Controls: Use appropriate engineering control such as process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. Good general ventilation should be sufficient to control airborne levels. Where such systems are not effective wear suitable personal protective equipment, which performs satisfactorily and meets OSHA or other recognized standards. Consult with local procedures for selection, training, inspection and maintenance of the personal protective equipment.
Eye/Face Protection: Wear appropriate protective glasses or splash goggles as described by 29 CFR 1910.133, OSHA eye and face protection regulation, or the European standard EN 166.
Skin Protection Description: Wear appropriate protective gloves and other protective apparel to prevent skin contact. Consult manufacturer's data for permeability data.
Respiratory Protection: A NIOSH approved air-purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.
Other Protective: Facilities storing or utilizing this material should be equipped with an eyewash and a deluge shower safety station.

EXPOSURE GUIDELINES

**Benzene-1,3-dimethaneamine (MXDA):**
- Guideline ACGIH: Skin: yes
  - TLV-Ceiling/Peak: 0.1 mg/m3

**Ethylbenzene:**
- Guideline ACGIH: 100 ppm
  - TLV-STEL: 125 ppm
  - TLV-TWA: 100 ppm
- Guideline OSHA: 100 ppm
  - PEL-TWA: 100 ppm

Notes: Only established PEL and TLV values for the ingredients are listed.

SECTION 9 - PHYSICAL and CHEMICAL PROPERTIES

Physical State Appearance: Paste.
**SECTION 10 - STABILITY and REACTIVITY**

Chemical Stability: Stable under normal temperatures and pressures.

Hazardous Polymerization: Not reported.

Conditions to Avoid: Extreme heat, sparks, and open flame. Incompatible materials, oxidizers and oxidizing conditions.


**SECTION 11 - TOXICOLOGICAL INFORMATION**

**4-Tert-Butylphenol**

RTECS Number: VW0323475

Eye: Eye - Rabbit Standard Draize Test.: 10 mg

Skin: Oral - Rat LD50: 3250 μL/kg [Details of toxic effects not reported other than lethal dose value.]

Intraperitoneal - Rat LD50: 225 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Intraperitoneal - Mouse LD50: 78 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Administration onto the skin - Rabbit LD50: 2520 μL/kg [Details of toxic effects not reported other than lethal dose value.]

Ingestion: Oral - Rat LD50: 1030 mg/kg [Behavioral - Tetany Behavioral - Irritability]

**Benzene-1,3-dimethaneamine (MXDA)**

RTECS Number: PF8970000

Eye: Eye - Rabbit Standard Draize Test.: 50 μg/24H

Skin: Oral - Rat LD50: 930 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Intraperitoneal - Rabbit LD50: 2 gm/kg [Details of toxic effects not reported other than lethal dose value.]

Inhalation: Inhalation - Rat LC50: 700 ppm/1H [Sense Organs and Special Senses (Eye) - Larcimation Lungs, Thorax, or Respiration - Respiratory depression]

Ingestion: Oral - Rat LD50: 930 mg/kg [Details of toxic effects not reported other than lethal dose value.]

**Ethylbenzene**

RTECS Number: DA0700000

Eye: Eye - Rabbit Standard Draize Test.: 500 mg

Skin: Intraperitoneal - Mouse LD50: 2624 μL/kg [Details of toxic effects not reported other than lethal dose value.]

Intraperitoneal - Rabbit LD50: 17800 μL/kg [Details of toxic effects not reported other than lethal dose value.]

Oral - Rat LD50: 3500 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Administration onto the skin - Rabbit LD50: >5000 mg/kg [Details of toxic effects not reported other than lethal dose value.]

Oral - Rat LD50: 3500 mg/kg [Liver - Other changes Kidney/Ureter/Bladder - Other changes]

Administration onto the skin - Rabbit Open irritation test: 15 mg/24H

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Carcinogenicity: IARC: Group 2B: Possibly carcinogenic to humans.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity: No ecotoxicity data was found for the product.
Environmental Fate: No environmental information found for this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal: Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

SECTION 14 - TRANSPORT INFORMATION

DOT Shipping Name: Paint
DOT UN Number: UN3066
DOT Hazard Class: 8
DOT Packing Group: III

SECTION 15 - REGULATORY INFORMATION

Trimethylhexamethylenediamine (TMD) :
TSCA Inventory Status: Listed
Canada DSL: Listed
Amorphous silicon dioxide :
TSCA Inventory Status: Listed
Canada DSL: Listed
4-Tert-Butylphenol :
TSCA Inventory Status: Listed
Canada DSL: Listed
Benzene-1,3-dimethaneamine (MDA) :
TSCA Inventory Status: Listed
Massachusetts: Listed
Pennsylvania: Listed
Canada DSL: Listed
Ethylbenzene :
TSCA Inventory Status: Listed
SARA: EPCRA - 40 CFR Part 372 - (SARA Title III) Section 313 Listed Chemical.
California PROP 65: Listed: cancer
New Jersey: Listed: NJ Hazardous List; Substance Number: 0851
Massachusetts: Listed: Massachusetts Oil and Hazardous List
Pennsylvania: Listed
Canada DSL: Listed
Canadian Regulations: WHMIS Hazard Class(es): D2A
All components of this product are on the Canadian Domestic Substances List.

WHMIS Pictograms

SECTION 16 - ADDITIONAL INFORMATION

HMIS Fire Hazard: 1
HMIS Health Hazard: 2
HMIS Reactivity: 1
HMIS Personal Protection: X
MSDS Revision Date: 06/15/2009
MSDS Author: Actio Corporation
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