Material Safety Data Sheet

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ZEP520A, ZEP520A-7
MANUFACTURER: Zeon Corporation
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TELEPHONE NUMBER: +81-3-3216-0590
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SECTION 2 - COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>HAZARDOUS INGREDIENTS</th>
<th>CAS #</th>
<th>AMOUNT</th>
<th>EXPOSURE LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Anisole (Methoxybenzene)</td>
<td>100-66-3</td>
<td>92.0-88.5%</td>
<td>OSHA PEL</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>None Established</td>
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<td></td>
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</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OTHER INGREDIENTS</th>
<th>CAS #</th>
<th>AMOUNT</th>
<th>EXPOSURE LIMITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polystyrene type copolymer</td>
<td>43127-35-1</td>
<td>8.0-11.5%</td>
<td>OSHA PEL</td>
</tr>
<tr>
<td></td>
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<td>None Established</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>None Established</td>
</tr>
</tbody>
</table>

SECTION 3 - HAZARDS IDENTIFICATION

Main Hazard: Flammable liquid. May be irritating to skin, eyes and respiratory system.
Health Effects EYES: May cause eye irritation.
Health Effects SKIN: Repeated or prolonged skin contact may cause irritation.
Health Effects INGESTION: Seek medical attention immediately.
Ingestion of this material may cause irritation of gastrointestinal tract.
Health Effects INHALATION: Remove to fresh air. Obtain medical attention.
Environmental Effects: May contaminate water supplies/pollute public waters.

SECTION 4 - FIRST AID MEASURES

First Aid - Inhalation: Remove to fresh air. Seek medical advice.
  - Skin contact: After contact with skin, wash with plenty of soap and water.
  - Remove contaminated clothing and shoes.
  - Seek medical attention if ill effect or irritation develops.
  - Eye contact: Wash out eye(s) with running water for at least 15 minutes while holding eyelid(s) open.
  - Seek medical attention if ill effect or irritation develops.
  - Ingestion: DO NOT induce vomiting. Wash out mouth with water.
  - Seek medical attention immediately.

Emergency Medical Treatment: No specific antidotal treatment. Symptomatic support required.
No adverse health effects are expected at ambient temperatures and normal processing, where exposures are eliminated by good hygiene practice and well-ventilated conditions.

SECTION 5 - FIRE FIGHTING MEASURES

Extinguishing Media: CO₂, Dry Powder, Foam. NEVER use a direct water jet.
Special Exposure Hazards: None known to Zeon Corporation.
Protection Against Fire: Self-contained breathing apparatus during attack stages of fire-fighting and fire clean-up. Personnel without suitable respiratory protection equipment must leave area to prevent significant exposure to decomposition gases.
Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
Use a water spray or fog for cooling exposed containers.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Protection: Chemical goggles or safety glasses. If skin contact or contamination of clothing is likely, protective clothing should be worn. Use neoprene or rubber gloves.
Environmental Precautions: Prevent entry to sewers and public waters. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
No significant environmental hazard or adverse effect from human exposure resulting from the accidental release of this material is anticipated.
After Spillage / Leakage: Do not empty into drains. Do not flush down sewers. Impound and recover large land spill; soak up small spill with inert solids.

SECTION 7 - HANDLING AND STORAGE

Technical Protective Measures: Assure good ventilation to prevent flammable vapor formation. If mechanical ventilation is used, electrical systems should conform to national electrical code.
Provide proper grounding.
Storage: Store in dark, dry, cool, well-ventilated area. Purge air in the container with nitrogen. Store away from all heated sources, including direct sunlight. Tanks should be grounded and provided with adequate pressure relief value.
Storage in stainless steel or polyethylene recommended.
Handling: Use only well-ventilated area.
Mechanical ventilation is recommended. Both local exhaust and general room ventilation are usually required.
Open only in well-ventilated area away from heat/sparks/open flame/sunlight.
General Information: Avoid all sources of ignition.
Avoid any personal contact. Avoid vapor or mist inhalation.
Storage and handling in stainless steel, or lined steel, or glass, or polyethylene is recommended.
Decontamination Procedures: No special decontamination procedures needed.
Isolate, vent, drain, wash and purge equipment before reinstallation.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Control Measures: Mechanical ventilation is recommended. Provide local exhaust or general room ventilation to minimize exposure to vapors.

Personal Protection:
- Respiratory Protection: No special respiratory protection equipment is recommended under normal conditions of anticipated use with adequate ventilation.
Self-contained breathing apparatus. (when in confined space/cleaning blockages.)
- Skin Protection: Wear cotton or similar overalls. Wear impervious overalls for clean-up work.
- Eye Protection: Chemical goggles or safety glasses.
- Hand Protection: Wear rubber gloves for clean-up work on machines, extraction hoods or similar.
- Others: Wash hands before eating, drinking, smoking, or using toilet facilities.
SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Liquid
Color: Colorless and transparent
Odor: Anise-like odor
Flash Point: 46°C
Auto-ignition Temperature: Not Applicable (NA)
Explosion Limits: -Upper: 6.3 vol %
- Lower: 0.3 vol %
Boiling Point: >155°C
Vapor Pressure: Not Applicable (NA)
Melting Point: <20°C
Vapor Density (AIR=1): Not Applicable (NA)
Relative Density (d25/d4): ~1
Solubility in water: Not Soluble
In alcohol, ketone or hydrocarbon: Soluble

SECTION 10 - STABILITY AND REACTIVITY

Conditions to Avoid: Overheating, Heat, sparks, open flame and sunlight.
Materials to Avoid: Avoid strong acids, bases and oxidizers.
Hazardous Decomposition Products: None known. When overheated or in fire, decomposition products may contain oxides of carbon, hydrogen chloride and small amounts of aromatic hydrocarbons.
Hazardous Reactions: No dangerous reactions known.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity: Oral LD50 (rat) 3700mg/kg (Anisole)
Local Effects (Irritation)
The vapor of this product may caused severe irritation to eyes and/or headache.
Sensitization: Not established.
Carcinogenicity: Not established.
Mutagenicity: Ames test: Not established.

SECTION 12 - ECOLOGICAL INFORMATION

Ecological effects Information: Not established.
Biodegradation: Not established.
General notes: Do not allow product to reach ground water, water course or sewage system.

SECTION 13 - DISPOSAL CONSIDERATIONS

Product Disposal: High temperature incineration properly contained using registered contractors—Both in accordance with National and International Law and Regulations.
Container Disposal: Landfill solids at permitted sites. Similarly, by high temperature incineration. Both in accordance with National and International Law and Regulations.
SECTION 14 - TRANSPORT INFORMATION

UN No : 2222
Hazard Class : Class 3
Packing Group : PG III

SECTION 15 - REGULATORY INFORMATION

EINECS : 2028761 : Anisole : Listed
TSCA Listing: 100-66-3 : Anisole : Listed, 43127-35-1 (LVEL-91-134) : Polystyrene type copolymer : Listed
MTI : 3-556 : Anisole : Listed

SECTION 16 - OTHER INFORMATION

The statements are made on the basis of the present state of knowledge. They are meant to describe the products with a view to safety requirements and therefore are not to the effect of guaranteeing certain properties.

User's Responsibility

This bulletin cannot cover all possible situations which the user may experience during processing. Each aspect of your operation must be examined to determine if, or where, additional precautions may be necessary. All health and safety information contained in this bulletin must be provided to your employees or customers. It is your responsibility to use this information to develop appropriate work practice guidelines and employee instructional programs for your operation.

This product is for battery binder use. Don't use it for food and medical care. If you want to test it for a special use, please check safety and regulatory conformity for that use under your responsibility or please talk with us beforehand.

Disclaimer of Liability

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