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**SECTION – 1: PRODUCT & COMPANY IDENTIFICATION**

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- 1.1 CHEMICAL NAME/SYNONYM : UNSATURATED POLYESTER RESIN SOLUTION IN STYRENE
- 1.2 BRAND / TRADE NAME : VERY LOW FLAMMABLE ISOPHTHALATE RESIN MECHSTER 1110MFR
- 1.3 CHEMICAL COMPOSITION : Isophthalic acid based polyester resin solution in Styrene.
- 1.4 MANUFACTURER'S NAME AND ADDRESS : MECHEMCO RESINS PVT. LTD.  
D-36/3, T.T.C INDUSTRIAL AREA, MIDC,  
TURBHE, NAVI MUMBAI – 400 613.  
INDIA.
- 1.5 EMERGENCY TELEPHONE NOS. : +91-22-27682720 / 27632153 / 27632154  
FAX NO. : +91-22-27682721  
E-MAIL ADDRESS : [techserv@mechemco.com](mailto:techserv@mechemco.com)

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**SECTION – 2: INFORMATION ON HAZARDOUS INGREDIENTS**

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| INGREDIENT   | WT%       | CAS No.                 | EEC No.      | TLV                                |
|--------------|-----------|-------------------------|--------------|------------------------------------|
| Styrene      | 25 – 45%  | 100-42.5                | 601-026-00-0 | 100 ppm<br>(8 hr reference period) |
| Fumed Silica | 0.2 – 2%  | 7631-86-9               | 231-54-54    | 10 mg/cu.m.                        |
| Additives    | 0.2 – 30% | Proprietary Formulation |              | Not Evaluated                      |

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**SECTION – 3: EMERGENCY FIRST AID PROCEDURES**

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- 3.1 EYE CONTACT : Flush eyes with copious amount of water for at least 15 minutes. Seek medical attention if irritation persists
- 3.2 SKIN CONTACT : Wash skin with water and soap. Seek medical attention if irritation persists
- 3.3 INHALATION : Move to fresh air. Restore or support breathing as required. Keep the person warm and at rest. Seek medical attention as soon as possible
- 3.4 INGESTION : If conscious, give large quantities of water and contact physician.

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#### SECTION – 4: FIRE AND EXPLOSION DATA

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|-----|--------------------------------------|--|
| 4.1 | THE PRODUCT IS                       | Flammable liquid, Class IC.  |
| 4.2 | AUTO IGNITION TEMPERATURE            | 490°C Styrene  |
| 4.3 | FLASH POINT                          | 34°C Styrene   |
| 4.4 | FLAMMABLE LIMITS                     | LOWER: 0.9%<br>UPPER: 6.8% (Styrene)   |
| 4.5 | PRODUCTS OF COMBUSTION               | May produce carbon monoxide, carbon dioxide, and irritating or toxic vapors, gases or particulate.   |
| 4.6 | FIRE HAZARD                          | Flammable in the presence of open flames, sparks, or heat.   |
| 4.7 | EXPLOSION HAZARD                     | Can react with oxidizing materials. Explosive in the form of vapor when exposed to heat or flame. Material may polymerize when container is exposed to heat (fire) and polymerization will increase pressure in a closed container which may cause the container to rupture violently.   |
| 4.8 | FIRE FIGHTING MEDIA AND INSTRUCTIONS | SMALL FIRE: Use carbon dioxide, foam, dry chemical or water fog to extinguish.<br>LARGE FIRE: Evacuate surrounding areas. Use carbon dioxide, foam, dry chemical or water fog to extinguish. Wear self-contained breathing apparatus (SCBA) and full fire fighting protective clothing. Cool containing vessels with water spray in order to prevent pressure build-up, auto ignition or explosion. Prevent run off to sewers or other water ways. |

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#### SECTION – 5: ACCIDENTAL RELEASE MEASURES

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|-----|-------------|---|
| 5.1 | SMALL SPILL | Absorb with an inert material and place in an appropriate waste disposal container.   |
| 5.2 | LARGE SPILL | Stop leak if without risk. Eliminate all ignition sources. Contain with an inert material, recover as much as possible and place the remainder in an appropriate waste disposal container. Warn unauthorized personnel to move away. Prevent entry into sewers or confined areas. |

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#### SECTION – 6: STORAGE AND HANDLING INFORMATION

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|-----|----------|---|
| 6.1 | STORAGE  | Keep tightly closed in a dry, cool and well ventilated place. Protect against heat      |
| 6.2 | HANDLING | Protection against fire and explosion. Keep away from sources of ignition. "NO SMOKING" |

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**SECTION – 7: EMPLOYEE PROTECTION / SPECIAL PROTECTION**

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|     |                            |   |
|-----|----------------------------|---|
| 7.1 | RESPIRATORY PROTECTION     | : In case of insufficient ventilation wear suitable respiratory equipment |
| 7.2 | VENTILATION                | : Mechanical ventilation and local exhaust                                |
| 7.3 | OTHER PROTECTIVE EQUIPMENT |   |
|     | a) Hands Protection        | : PVC or other plastic material gloves                                    |
|     | b) Eye Protection          | : Splash Proof Goggles / Face Shield                                      |
|     | c) Skin / Body Protection  | : Chemical Resistant Apron, Protective Suit, Safety Shoes / Boots         |

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**SECTION – 8: PHYSICAL AND CHEMICAL PROPERTIES**

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|      |                          |                            |
|------|--------------------------|----------------------------|
| 8.1  | PHYSICAL STATE           | Viscous Liquid             |
| 8.2  | COLOUR                   | Creamy White               |
| 8.3  | MOLECULAR WEIGHT (d/mol) | 1000 to 15000              |
| 8.4  | MELTING POINT            | Not available              |
| 8.5  | VAPOR PRESSURE           | 4.5 mm Hg @ 20°C (Styrene) |
| 8.6  | ODOUR                    | Styrene Odor (Aromatic)    |
| 8.7  | EVAPORATION RATE         | Not available              |
| 8.8  | WATER SOLUBILITY         | Insoluble in Water         |
| 8.9  | pH (1% soln / water)     | Not applicable             |
| 8.10 | BOILING POINT            | 145°C (Styrene)            |
| 8.11 | SPECIFIC GRAVITY         | 1.15 – 1.35                |
| 8.12 | VAPOR DENSITY            | 3.59 (Styrene)             |
| 8.13 | WATER/OIL dist.coeff.    | Not available              |
| 8.14 | DISPERSION PROPERTIES    | Not dispersed in water.    |

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**SECTION – 9: STABILITY AND REACTIVITY DATA**

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|     |   |  |
|-----|---|--|
| 9.1 | STABILITY                               | This product is normally stable, but can become unstable at elevated temperatures.   |
| 9.2 | INSTABILITY TEMPERATURE                 | 77°C   |
| 9.3 | CONDITIONS OF HEAT                      | Heat-up  |
| 9.4 | INCOMPATIBILITY WITH VARIOUS SUBSTANCES | Polymerizes in the presence of organic peroxides, oxidizing materials, or heat.  |
| 9.5 | CORROSIVITY                             | No specific information is available in our database regarding the corrosivity of this product in presence of various materials. |

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## SECTION – 10: TOXICOLOGICAL INFORMATION

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- 10.1 ROUTES OF ENTRY Inhalation, Ingestion, Skin Contact, Eye contact.  
10.2 TOXICITY TO ANIMALS 1) Styrene  
Lung effects have been observed in mouse studies following repeated exposures.

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## SECTION – 11: ECOLOGICAL INFORMATION


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ECOTOXICITY Toxic to aquatic organisms. Should not be released to sewage system or other bodies of water at concentrations above limits established in regulations or permits.

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## SECTION – 12: TRANSPORT INFORMATION

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|------|----------------------------------|---|--|
| 12.1 | DOT – SHIPPING DESCRIPTION       | UN1866; RESIN SOLUTION; 3; III  |  |
| 12.2 | TDG - SHIPPING DESCRIPTION       | UN1866; RESIN SOLUTION; 3; III  |  |
| 12.3 | IATA/IMDG – SHIPPING DESCRIPTION | IATA:<br>UN1866; RESIN SOLUTION; 3; III;<br>Pkg. Inst.: Passenger – 309; CARGO – 310.<br>IMDG:<br>UN1866; RESIN SOLUTION; 3; III;<br>FLASH POINT: 31°C; EMS No.: F-E, S-E |  |

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## SECTION – 13: REGULATORY INFORMATION

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OTHER REGULATIONS This section does not reference all applicable regulatory compliance lists.  
OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)  
SARA 302 component(s): None.  
SARA 313 component(s): Styrene (100ppm), Cobalt Compounds.

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**SECTION – 14: SPECIAL PRECAUTIONS**

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14.1 PRECAUTION ON HANDLING AND STORING      Flammable. Keep away from heat, sparks and open flame

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**SECTION – 15: DISPOSAL INFORMATION**

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15.1 SPILL AND LEAK PROCEDURES      Soak up with inert adsorbent material. Shovel in to suitable container for disposal. After cleaning, flush away traces with water.

15.2 WASTE DISPOSAL METHOD      Incinerate or land-fill in accordance with local pollution regulation and ordinance.

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**SECTION – 16: OTHER INFORMATION**

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|---|--|----------------|---|-------------|---|------------|---|---------------------|---|--|
| <p><b>NFPA (USA)</b></p> <p>Fire</p>  <p>Health      Reactivity</p> <p>Specific hazard</p> | <p><b>HMIS (USA)</b></p> <table border="1"> <tr><td>Health hazards</td><td>2</td></tr> <tr><td>Fire hazard</td><td>3</td></tr> <tr><td>Reactivity</td><td>1</td></tr> <tr><td>Personal protection</td><td>X</td></tr> </table> | Health hazards | 2 | Fire hazard | 3 | Reactivity | 1 | Personal protection | X | <p><b>Protective Clothing</b></p>  |
| Health hazards  | 2  |                |   |             |   |            |   |                     |   |  |
| Fire hazard   | 3  |                |   |             |   |            |   |                     |   |  |
| Reactivity  | 1  |                |   |             |   |            |   |                     |   |  |
| Personal protection   | X  |                |   |             |   |            |   |                     |   |  |