



**MATERIAL SAFETY DATA SHEET  
(MECHSTER 5310NFR)  
BROMINATED EPOXY NOVOLAC BASED VINYL ESTER RESIN**

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**SECTION – 1: PRODUCT IDENTIFICATION**

|   |  |
|---|--|
| 1.1 CHEMICAL NAME/SYNONYM                                 | :UNSATURATED POLYESTER RESIN SOLUTION IN STYRENE   |
| 1.2 BRAND / TRADE NAME                                    | :BROMINATED EPOXY NOVOLAC BASED VINYL ESTER RESIN MECHSTER 5310NFR   |
| 1.3 CHEMICAL COMPOSITION                                  | : Brominated Epoxy novolac based vinyl ester resin solution in Styrene.  |
| 1.4 MANUFACTURER'S NAME AND ADDRESS                       | : MECHEMCO INDUSTRIES<br>Unit No. 27, Kewal Industrial Estate<br>Senapati Bapat Marg, Lower Parel<br>Mumbai 400 013. INDIA |
| 1.5 EMERGENCY TELEPHONE NOS.<br>FAX NO.<br>E-MAIL ADDRESS | : +91-22-24966373/24966374/24951799<br>: +91-22-24945907<br>: mechemco@vsnl.com  |

**SECTION – 2: HAZARDOUS INGREDIENTS**

| INGREDIENT | WT%    | CAS No.  | EEC No.      | TLV                                |
|------------|--------|----------|--------------|------------------------------------|
| Styrene    | 30-40% | 100-42.5 | 601-026-00-0 | 100 ppm<br>(8 hr reference period) |

**SECTION – 3: PHYSICAL DATA**

|                        |                      |
|------------------------|----------------------|
| 3.1 STATE              | : Viscous Liquid     |
| 3.2 COLOUR             | : Amber colour Clear |
| 3.3 ODOUR              | : Styrene Odour      |
| 3.4 FLASH POINT        | : 34°C (Styrene)     |
| 3.5 SPECIFIC GRAVITY   | : 1.15               |
| 3.6 VISCOSITY at 30 °C | : 150-350 cP         |
| 3.7 WATER SOLUBILITY   | : Insoluble in Water |

**SECTION – 4: STORAGE AND HANDLING INFORMATION**

|              |  |
|--------------|--|
| 4.1 STORAGE  | : Keep tightly closed in a dry, cool and well ventilated place. Protect against heat         |
| 4.2 HANDLING | : Protection against fire and explosion. Keep away from sources of ignition.<br>"NO SMOKING" |



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**SECTION – 5: HAZARDS IDENTIFICATION AND DATA**

- |     |                             |   |
|-----|-----------------------------|---|
| 5.1 | MOST IMPORTANT HAZARDS      | : Flammable   |
| 5.2 | FIRE & EXPLOSION HAZARD     | : Dangerous fire hazard & moderate explosion hazard when vapour is exposed to flame |
| 5.3 | HAZARD DATA                 | : Harmful by inhalation, irritation to eyes & skin                                  |
|     | a. Threshold Limit Value    | : 100 ppm (8 hours reference period)  |
|     | b. Effects of Over Exposure | : May cause skin and eye irritation   |

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**SECTION – 6: FIRE FIGHTING MEASURES**

- |     |                     |  |
|-----|---------------------|--|
| 6.1 | Extinguishing Media | : Standard procedures for Chemical fire, use dry powder, sand, foam. Cool the containers / tanks with water spray  |
| 6.2 | Special Notes       | : May form toxic materials, viz., Carbon Dioxide, Carbon Monoxide and various hydrocarbons while burning. Recommended to Wear self contained breathing apparatus while fighting fire |

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**SECTION – 7: STABILITY AND REACTIVITY DATA**

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|-----|----------------------------------|--|
| 7.1 | STABILITY                        | : Store below 30 °C in closed original Containers. Store in dark, away from Oxidising Materials    |
| 7.2 | CONDITIONS TO AVOID              | : Excess heating or cooling over long time, exposure to sunlight, mixing with strong oxides        |
| 7.3 | HAZARDOUS DECOMPOSITION PRODUCTS | : None under normal use. Thermal decomposition can lead to release of irritating gases and vapours |
| 7.4 | HAZARDOUS POLYMERIZATION         | : May occur  |

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**SECTION – 8: TOXICOLOGICAL INFORMATION**

No information available



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**SECTION – 9: EMERGENCY FIRST AID PROCEDURES**

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- 9.1 EYE CONTACT : Flush eyes with copious amount of water for at least 15 minutes. Seek medical attention if irritation persists
- 9.2 SKIN CONTACT : Wash skin with water and soap. Seek medical attention if irritation persists
- 9.3 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
- 9.4 INGESTION : If conscious, give large quantities of water and contact physician

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**SECTION – 10: EMPLOYEE PROTECTION / SPECIAL PROTECTION**

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- 10.1 RESPIRATORY PROTECTION : In case of insufficient ventilation wear suitable respiratory equipment
- 10.2 VENTILATION : Mechanical ventilation and local exhaust
- 10.3 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 – 11: DISPOSAL INFORMATION / ENVIRONMENT PROTECTION**

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- 11.1 SPILL AND LEAK PROCEDURES : Soak up with inert adsorbent material. Shovel in to suitable container for disposal. After cleaning, flush away traces with water.
- 11.2 WASTE DISPOSAL METHOD : Incinerate or land-fill in accordance with local pollution regulation and ordinance.
- 11.3 ENVIRONMENTAL HAZARDS : Non specified

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**SECTION – 12: ECOLOGICAL INFORMATION**

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- 12.1 GENERAL INFORMATION : Marine Pollutant
- 12.2 DISPOSAL METHODS : Refer to SECTION 11 for safe disposal



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**SECTION – 13: REGULATORY INFORMATION**

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|      |                    |  |
|------|--------------------|--|
| 13.1 | OSHA REGULATION    | 100 ppm for Styrene (As per Section 2)           |
| 13.2 | ACGIH              | 50 ppm for short term exposure limit for Styrene |
| 13.4 | SAFETY PRECAUTIONS | Refer to Section 4 and Section 8                 |

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**SECTION – 14: SPECIAL PRECAUTIONS**

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|      |                                       |  |
|------|---------------------------------------|--|
| 14.1 | PRECAUTION ON<br>HANDLING AND STORING | : Flammable. Keep away from heat, sparks and<br>open flame |
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**SECTION – 15: TRANSPORT INFORMATION**

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|      |                      |                  |
|------|----------------------|------------------|
| 15.1 | MARINE POLLUTANT     | : Yes            |
| 15.2 | CLASS                | : 3              |
| 15.3 | UN NO.               | : 1866           |
| 15.4 | PROPER SHIPPING NAME | : Resin Solution |