

1. Chemical Product & Company Identification

Trade name	MB111
Brand Name & Code	Tulsion
Validation Date	01/03/2017

2. Composition/Information on Ingredients

Component	CAS	% by wt.	Exposure Guidelines
Mixture of Strong acid cation Exchange Resin & Strong base Anion Exchange Resin, Type I		30 - 45	None Established
Water	7732 - 18 - 5	55 - 70	

3. Hazards Identification

Potential Health Risks

Skin	Prolonged or repeated exposure not likely to cause any significant skin irritation. Skin absorption is unlikely due to physical properties.
Eyes	Solid or dust may cause irritation or corneal injury due to mechanical action.
Inhalation	Vapours are unlikely due to physical properties. No adverse effects are anticipated from inhalation.
Ingestion	Single dose oral LD50 has not been determined. Single dose oral toxicity is believed to be very low. No hazardous anticipated from ingestion incidental to industrial exposure

Physical/Chemical Effects

These effects have not been studied thoroughly.

4. First Aid Measures

Skin	Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid if irritation develops or persists.
Eyes	Flush eyes thoroughly with water for at least 15 minutes occasionally lifting upper and lower eyelids. Get medical aid from preferably an ophthalmologist.
Inhalation	If inhaled remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.
Ingestion	Single dose oral LD50 has not been determined. Single dose oral toxicity is believed to be very low. No hazardous anticipated from ingestion incidental to industrial exposure

5. First Aid Measures

Flash point	N/A
Auto Ignition temperature	427°C (800°F)
LEL	N/A
UEL	N/A
Fire Extinguishing Media	Water spray, Carbon dioxide, dry chemical powder or appropriate foam

Basic Firefighting Procedure

Keep people away. Isolate fire area and deny unnecessary entry. Cool surroundings with water to localize fire zone. Wear MSHA/NIOSH approved, pressure demand self-contained breathing apparatus/ equipment. ingestion incidental to industrial exposure.

Unusual Fire & Explosion Hazards

Emits toxic fumes fire conditions

6. Handling & Storage

Personnel precautions	Spilled material may cause a slipping hazard. Use appropriate safety equipment as indicated in point 8 Exposure controls / personnel protection.
Environmental Precautions	Prevent from entering into soil, ditches, sewers, waterways, and/or groundwater. See point No. 12 Ecological information.

7. Exposure Controls

Eye protection	Use safety eyeglasses or chemical safety goggles as described by OSHA's eye & face protection regulations 29 CFR 1910.133 or European standard EN166.
Skin & body protection	Wear appropriate gloves & clean body covering clothing to prevent skin exposure.
Respiratory protection	No respiratory protection is needed but whenever necessary always use a NIOSH or European standard N ¹⁴⁹ approved respirator.

8. Exposure Controls

Physical state	Solid
Appearance	Amber Yellow colour spherical beads
Odour	Odourless
Boiling Point	N/A
Melting Point	N/A
Freezing oint	N/A
Vapour Density	N/A
Vapour Pressure at 20°C	N/A
Solubility in water at 30°C	Insoluble
Specific gravity (H ₂ O = 1)	N/A
Evaporation Rate (BA = 1)	N/A
% Volatiles	55-70

9. Stability & Reactivity

Stability/Incompatibility	Stable under recommended storage conditions. See point 7, Storage Conditions. Product can decompose at elevated temperatures, so avoid temperatures above 220°C/428°F
Materials to avoid	Avoid contact with strong oxidising agents such as Nitric acid. Before using strong oxidising agents consult sources knowledgeable in handling such materials. The severity of the reaction with oxidising materials can vary from slight degradation to an explosive reaction.
Hazardous Decomposition Products	Hazardous decomposition products depend upon temperature, air supply and the presence of other materials. Hazardous decomposition products may include and not limited to carbon mon-oxide, carbon dioxide, aromatic compounds, hydrocarbons, organic sulfonates and sulphur dioxides. Hazardous polymerization will not occur.

10. Toxicological Information

No data available for this material. The information shown is based on profiles of compositionally similar interests.

Acute	No relevant information found
Skin	Data not available for this material. Acute dermal toxicity value for LD50 rabbit > 5000 mg/kg based on data for similar compositions.
Eyes	No relevant information found.
Ingestion	Data not available for this material. Acute oral toxicity value LD50rat > 5000 mg/kg based on data for similar compositions.

11. Ecological Information

Ecotoxicity & Bioaccumulation	Ecotoxicity is not expected to be acutely toxic, but pellets may mechanically cause adverse effects if ingested by water fowl or aquatic life. No bio concentration of the polymeric component is expected because of its high molecular weight.
Environmental Mobility	In the terrestrial environment, material is expected to remain in the soil. In the aquatic environment material will sink and remain in the sediment.
Environmental Degradability	Based largely/completely on information for copolymer. Surface photo degradation is expected with exposure to sunlight. No appreciable bio degradation is expected.
Environmental Degradability	Based largely/completely on information for copolymer. Surface photo degradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

13. Disposal Considerations

For used/uncontaminated product, the preferred options include incineration/landfill etc. Used material which has been contaminated with heavy metals or radioactive metals or toxic substances must be treated as per local state and federal regulations.

THE MANUFACTURER OF MB111 TULSION RESIN HAS NO CONTROL OVER THE MANAGEMENT PRACTISES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN POINT NO. 2 OF THIS MSDS.

13. Transport Information

Hazard Label	Non Hazardous
ADR	Non Hazardous for road transport
IMDG	Non Hazardous for sea transport
IATA	Non Hazardous for air transport

14. Regulatory Information

The information shown below is based on profiles of compositionally similar materials.

Hazard Label	N/A
Hazard Category	Indication of Danger – XI – Irritant
Risk Phrase	36 (Irritating to eyes)
Safety Phrase	26-36 (In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing).

15. Other Information

- If the material gets dried, while re-wetting, resin gets swelled.

Disclaimer

This information relates specifically to the product designated and may not be valid for the product when used in combination with any other materials or products or in a particular process. The information is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty or guarantee is made to its accuracy, reliability or completeness. It is the user's responsibility to review this information, satisfy itself to its suitability and completeness and pass on the information to its employees or customers in accordance with applicable federal, state or local hazard communications requirement. We do not accept responsibility for any loss or damage which may occur from the use of this information.