MATERIAL SAFETY DATA SHEET Phenolic resin

1. Chemical Product and Company Identification

Product name : Phenolic resin for brake lining.
Supplier : Sprea Misr for chemicals & plastics.

Address : P.O.Box 480 (Sharkia)

10th of Ramadan City - Egypt ARE.

Emergency phone number : 015410100 - 0117886300

2. Composition / Information on Ingredients

Ingredient	CAS No	Percentage (%)	Hazard
Phenolic resin	9003-35-4	91 - 93	No
Hexamine	00100-97-0	7 - 9	No

3. Hazards Identification

Emergency Overview

Use appropriate personal protective equipment. During fire situations, irritating and toxic gases such as phenol, formaldehyde and oxides of carbon may be generated. Keep from entering storm or sanitary sewers, ground water, or soil. Avoid contact with skin, eyes, closing and inhalation of dust or material's vapors. Use with adequate ventilation. Wash thoroughly after handling. May contain residual formaldehyde and/or free phenol. Review the MSDS before using this product

POTENTIAL HEALTH EFFECTS

Eye:

Will cause eye burns.

Skin contact:

May cause irritation and burns.

Ingestion:

Harmful if swallowed.

Inhalation:

Possible temporary irritation of mucous membranes if exposure is prolonged.

Carcinogenicity:

Per NTP carcinogenicity reasonably anticipated. IARC- yes (phenol<1%). Phenols are listed on the SARA title III, Section 313Toxic Chemical List. Per OSHA-potential cancer hazard. May release formaldehyde and/or phenol.

4.First Aid Measures

Skin:

Remove contaminated clothing and wash the exposed skin with large amount of water. See a physician if irritation persists.

Eye:

Immediately flush eyes with flowing water for at least 15 minutes. See a physician if irritation persists.

Inhalation:

Move person to none-contaminated air. If not breathing, give artificial respiration, preferably mouth to mouth. If breathing is difficult, give oxygen. If symptoms of respiratory tract irritation persist, seek medical attention.

Ingestion:

If the material is swallowed, get immediate medical attention or advice. The signs and symptoms that may result from an emergency or an unexpected acute overexposure include: gastritis.

Cardiovascular:

The signs and the symptoms that may result from an emergency or acute overexposure include: arrthymia.

Central Nervous System:

Monitor for shock and treat accordingly.

5. Fire Fighting Measures

>200 F (93C) TAG Closed Cup Flash Point:

LEL: ND **UEL:** ND ND **Auto Ignition Temperature:**

Use water spray, dry chemical, regular foam or carbon dioxide to extinguish fires. In the event of fire, wear full protective clothing and NIOSH approved self-contained breathing apparatus with full face piece, operated in the positive pressure mode. During fire situations, irritating and toxic gases such as phenol, formaldehyde and oxides of carbon may be generated. Pastilles/flakes present no special fire or explosion hazard; however, dust generated during handling or storage can create explosive mixtures in the air.

6.Accidental Release Measures

Ventilate the contaminated area. Eliminate ignition sources including sources of electrical, static or frictional sparks. Vacuum or sweep up material and place in containers applicable for ultimate transportation and disposal. Individuals involved in the cleanup should wear appropriate personal protective equipment. See section 8. Unnecessary personal should be kept clear of the area. Keep from entering storm or sanitary sewers, ground water, or soil. Dispose of following all local, state and federal laws. Other information as required.

7. Handling and Storage

Storage conditions: protect containers from physical abuse. Keep the container tightly

closed. Store in a cool dry, well ventilated area. Keep separate from incompatible. Bond and ground containers when transferring material. Empty containers may contain product residue. Do not reuse empty

containers.

Handling: Guard against dust accumulation. Good housekeeping and engineering

> practices should be employed to prevent the generation and accumulation of dusts. When the container is empty it may contain product residue including vapors which could accumulate. Therefore do not cut, weld, drill, grind empty containers. Individuals handling this product should wear personal protective equipment specified in section 8. Plant environment should include controls and equipment

specified in section 8.

8. Exposure Controls / Personal Protection

Engineering Controls:

Local exhaust ventilation should be provided. The need for local exhaust ventilation should be evaluated by a professional industrial hygienist. Local exhaust ventilation systems should be designed by a professional engineer.

Respiratory Protection:

Wear a dust mask if necessary.

Eve protection:

Safety glasses with side shields are recommended for any type of handling. Dust-tight goggles are recommended for dusty operations of area where vapors accumulate.

Protection Gloves:

Gloves impervious to dust or vapor.

Other protection items:

Neoprene or nitrile rubber coated apron or other body covering may be required if there is a possibility of regular work clothing becoming contaminated with the product. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse.

9. Physical and Chemical Properties

Appearance/physical state: white to pale brown free flowing powder.

Vapor density (air=1):

Vapor pressure:

NA

NA

Odor: phenol smell but not obvious

%Volatile by volume:

%Solubility (H₂O):

NA

Molting point:

70 °C

Melting point: 70 °C-90 °C

Specific Gravity: 1.1 - 1.2

Boiling Point: NA

pH: NA

pH: NA
Decomposition temperature: NA

Solubility: Alcohol, Ketone

Explosion properties: NA

10.Stability and Reactivity

Stability/polymerization:

Stable at normal storage and handling temperatures.

Conditions to avoid:

Avoid ignition sources where dust is produced.

Incompatibility (conditions to avoid):

Acids and strong oxidizing agents.

Hazardous Decomposition Products:

upon decomposition, this product may yield, carbon monoxide, carbon dioxide and other low molecular weight hydrocarbons.

Special Sensitivity:

None that are known.

11. Toxicological Information

Acute toxicity:

Ingestion: Oral LD50: >316 ppm (phenol).

Local effects:

NA

Sensitization:

NA

Chronic Toxicity or long term toxicity:

NA

Specific effects:

NA

12. Ecological Information

Mobility: in water: not soluble.

Persistence and degradability: Detailed information on this product is not available.

Ecotoxicity: Do not discharge waste into natural water cources or sewers.

13. Disposal Considerations

Product, all product residues and packaging should be disposed of in an EPA approved incinerator or landfill in accordance with all local, state, and/or federal regulations.

14. Transport Information

International regulations:

NA

UN classification no.:

NA

Specific Precautionary Transport

measures and conditions:

NA

15. Regulatory Information

Applicable Regulations:

Phenol is specified to be a Group I Materials of

Japanese PRTR.

16.Other Information

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.