

## MATERIAL SAFETY DATA SHEET

### **SULFONATED NAPHTHALENE FORMALDEHYDE – POWDER**

| SECTION 1: CHEMICAL PRODUCT & COMPANY IDENTIFICATION |   |                                                                                                                                                                 |
|------------------------------------------------------|---|-----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Product                                              | : | SULFONATED NAPHTHALENE FORMALDEHYDE - (NAFORES 801P).                                                                                                           |
| Synonym                                              | : | Sodium Salt of Poly Naphthalene Sulphonic Acid, Sulfonated Admixture Polymer.                                                                                   |
| Contact Information                                  | : | METHANOL CHEMICALS COMPANY<br>P.O. Box 2101, Jubail Industrial City 31951<br>Kingdom of Saudi Arabia.<br><a href="http://www.chemanol.com">www.chemanol.com</a> |
| Tel. No.                                             | : | 00966 3 358 9905/ 358 1111                                                                                                                                      |
| Emergency Tel. No.                                   | : | 00966-3- 358 0384                                                                                                                                               |
| SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS    |   |                                                                                                                                                                 |
| Ingredients                                          |   |                                                                                                                                                                 |
| Chemical Name                                        | : | CAS No. Proportion                                                                                                                                              |
| Sodium salt of Poly-Naphthalene Sulfonic acid        | : | 36290-04-7 93 - 95 % (w/w)                                                                                                                                      |
| Water                                                | : | 7732-18-5 5 - 7 % (w/w)                                                                                                                                         |
| SECTION 3: PHYSICAL AND CHEMICAL PROPERTIES          |   |                                                                                                                                                                 |
| Appearance                                           | : | Beige to brownish solid, powder.                                                                                                                                |
| PH of 2% solution                                    | : | 7.0- 9.0                                                                                                                                                        |
| Bulk Density                                         | : | 0.65 - 0.70 gm/cc                                                                                                                                               |
| Flash Point                                          | : | Not applicable                                                                                                                                                  |
| Volatiles                                            | : | 5 – 7 %                                                                                                                                                         |
| Solubility                                           | : | Easily Soluble in Water.                                                                                                                                        |
| Nature                                               | : | Anionic                                                                                                                                                         |
| Flammability                                         | : | May be combustible at higher temperatures.                                                                                                                      |
| Explosion hazards                                    | : | Non-explosive.                                                                                                                                                  |

#### SECTION 4: STABILITY AND REACTIVITY DATA

|                                     |                                                                                             |
|-------------------------------------|---------------------------------------------------------------------------------------------|
| Chemical Stability                  | : Stable under normal storage & application temperature.                                    |
| Conditions of Instability           | : Strong oxidizing agent and direct heat.                                                   |
| Instability Temperature             | : Not available.                                                                            |
| Materials to avoid                  | : Avoid contact with oxidizing materials.                                                   |
| Hazardous decomposition products    | : Sulphur Oxides (SO <sub>2</sub> , SO <sub>3</sub> ) Carbon Oxides (CO, CO <sub>2</sub> ). |
| Recommended materials for equipment | : Stainless steel (304), stainless steel (316), etc.                                        |
| Corrosivity                         | : Not available.                                                                            |
| Special Remarks on Reactivity       | : Not available.                                                                            |

#### SECTION 5: HAZARDS IDENTIFICATION

Product dust can cause irritation to the eyes & respiratory track. Swallowing may cause burns to the gastrointestinal track. Sulfur oxides may be released during a fire.

#### SECTION 6: FIRE & EXPLOSION DATA

|                                                     |                                                                                         |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------|
| Fire and Explosion Hazards                          | : Non-flammable and non-explosive.                                                      |
| Flash Point & Flammable Limit                       | : Not Available.                                                                        |
| Explosion Hazards in presence of various substances | : Not Available.                                                                        |
| Hazchem Code                                        | : None allocated.                                                                       |
| Extinguishing Media                                 | : Water Spray, Dry Chemical, CO <sub>2</sub> or Foam.                                   |
| Protective Measures                                 | : Fire fighters should wear self-contained breathing apparatus and protective clothing. |

## SECTION 7: TOXICOLOGICAL INFORMATION

|                          |                                                                                                                                                                                                                                                               |
|--------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Routes of Entry          | : Eye contact, inhalation, ingestion.                                                                                                                                                                                                                         |
| Toxicity to animals      | : Acute oral toxicity ( LD 50 ) : 3400 mg/Kg (RAT)<br>(LC 50): No information found.                                                                                                                                                                          |
| Effects on Contact       |                                                                                                                                                                                                                                                               |
| Eye Contact              | : May cause slight irritation. Does not require label up.                                                                                                                                                                                                     |
| Skin Contact             | : Mechanical skin irritation is possible, but unlikely. Not absorbed through skin.                                                                                                                                                                            |
| Sensitization            | : Not expected to be a skin-sensitizer. But hypersensitive individual may develop an allergic reaction resulting in dermatitis, rash or hives.                                                                                                                |
| Ingestion                | : This product is an ingestion hazard. Swallowing significant amount may cause caustic burns to the gastrointestinal track.                                                                                                                                   |
| Inhalation               | : Inhalation of high concentration may cause mechanical irritation & discomfort. Hypersensitive individuals may experience allergic respiratory reaction & wheezing.                                                                                          |
| Chronic Effects on Human | : CARCINOGENIC EFFECT: Classified as - NONE by NTP.<br>MUTAGENIC EFFECT: Not available.<br>DEVELOPMENTAL TOXICITY: Not available.<br>REPRODUCTIVE TOXICITY: Not available.<br><br>It is imperative that all forms of exposure be kept to an absolute minimum. |

## SECTION 8: EXPOSURE & FIRST AID MEASURES

|              |                                                                                                                                                                                                                                                                                                                                              |
|--------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation   | : Get fresh air. Give artificial respiration then oxygen if needed.                                                                                                                                                                                                                                                                          |
| Skin Contact | : Rinse with water for a few minutes. Remove contaminated clothing and wash before reuse.                                                                                                                                                                                                                                                    |
| Eyes Contact | : Flush eyes with clean water for at least 15 minutes keeping eyelids open. If discomfort persists, consult a physician.                                                                                                                                                                                                                     |
| Ingestion    | : Do not induce vomiting. Immediately give two glasses of water, if not unconscious. If vomiting occurs spontaneously, lower head below waist to prevent fluid from entering lungs. Loosen tight clothing such as collar, tie, belt etc. If victim is not breathing, perform mouth to mouth resuscitation. Seek immediate medical attention. |

## SECTION 9: ACCIDENTAL RELEASE MEASURES.

- Small spill and leak : Prevent product from entering drinking water, drainage system, waterways, water streams or soil. Sweep up and place in a closed container for disposal.
- Large spill : Evacuation area of none essential personnel. Use safety glass & gloves. Respiratory protection is required if dust is generated. Sweep or shovel spilled material using methods which avoids creating dust. Place in suitable containers & remove for disposal. Prevent spilled product from entering water streams. Dispose of all waste in accordance with applicable government regulations.

## SECTION 10: HANDLING AND STORAGE

- Storage : Keep bags tightly closed; in a cool (around 25C), well ventilated place. Avoid contact with strong oxidizing agents. Keep away from heat & sources of ignition.
- Handling Procedures & Equipment : Handle with care & avoid unnecessary personal contact. Wash thoroughly after handling. Do not breathe dust. Avoid contact with eyes. Wear suitable protective clothing. Employ grounding of equipments.

## SECTION 11: EXPOSURE CONTROLS/PERSONAL PROTECTION

- Engineering Controls : Use process enclosures, local exhaust ventilation or other engineering controls to keep airborne levels below the recommended exposure limits. If user operations generate dust, fume or mist, use proper filtration and ventilation.
- Personal Protection : Clothing – coveralls, Eye Protection – chemical workers goggles, Respirator type – class P1 or dust mask, Glove type – nitrile rubber or PVC gauntlets, Footwear-Safety Shoe.
- TLV / PEL : TWA: 15 mg/m<sup>3</sup> 8 hour total dust.  
5 mg/m<sup>3</sup> 8 hour respirable dust (OSHA).

## SECTION 12: ECOLOGICAL INFORMATION

|                                         |   |                                                                                                                     |
|-----------------------------------------|---|---------------------------------------------------------------------------------------------------------------------|
| Ecotoxicity                             | : | No information found.                                                                                               |
| BOD5 and COD                            | : | The BOD5 is 24000 (5 days)<br>The COD IS 1800,000 mg/l                                                              |
| Biodegradability                        | : | Biodegradable, further data not available.                                                                          |
| PRODUCTS OF BIO-DEGRADATION             | : | Possibly hazardous short-term degradation products are not likely. However long term degradation product may arise. |
| Toxicity of products of Bio-degradation | : | No information found.                                                                                               |

## SECTION 13: DISPOSAL CONSIDERATION

Recycle if possible. Any waste or contaminated spills should be disposed off in accordance with local environment control regulations or USEPA guidelines using a registered waste disposal contractor.

## SECTION 14: TRANSPORT INFORMATION

Packaging in 25 kgs. paper bags, and in 600 kgs. jumbo bags polyethylene woven bags.

Transport classification Non-flammable

Substance Identification Not applicable.

Number

IMCO Class Not applicable.

Packing Group Not applicable.

ADR/ADNR/RID/IATA/IMDG Not restricted.

MARITIME Transportation Not pollutant.

DOT Not a DOT controlled material (United States).



Emergency Action Code Not applicable. UN

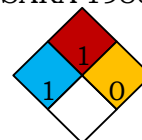
number Not Regulated. Dangerous

goods class None allocated.

Subsidiary Risk None allocated.

## SECTION 15: REGULATORY INFORMATION

|                                        |            |                                                                                                                                                                                                                      |               |   |             |   |                 |   |                     |   |
|----------------------------------------|------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---|-------------|---|-----------------|---|---------------------|---|
| HCS(USA)                               | :          | Not controlled under the HCS (United States).                                                                                                                                                                        |               |   |             |   |                 |   |                     |   |
| DSCL(EEC)                              | :          | This product is not classified according to EU regulations & does not require a hazard warning label.                                                                                                                |               |   |             |   |                 |   |                     |   |
| International Regulations Lists        | :          | No ingredient of this product is subject to the reporting requirements of section 313 of the title III of the super fund amendments and reauthorization act 11 (SARA 1986) and 40 CFR Part 392 of the United States. |               |   |             |   |                 |   |                     |   |
| NFPA rating(estimated)                 | :          | Health: 1, Flammable: 1, Instability: 0                                                                                                                                                                              |               |   |             |   |                 |   |                     |   |
| Hazardous material information system. | :          | <table><tr><td>Health Hazard</td><td>1</td></tr><tr><td>Fire Hazard</td><td>1</td></tr><tr><td>Physical Hazard</td><td>0</td></tr><tr><td>Personal Protection</td><td>E</td></tr></table>                            | Health Hazard | 1 | Fire Hazard | 1 | Physical Hazard | 0 | Personal Protection | E |
| Health Hazard                          | 1          |                                                                                                                                                                                                                      |               |   |             |   |                 |   |                     |   |
| Fire Hazard                            | 1          |                                                                                                                                                                                                                      |               |   |             |   |                 |   |                     |   |
| Physical Hazard                        | 0          |                                                                                                                                                                                                                      |               |   |             |   |                 |   |                     |   |
| Personal Protection                    | E          |                                                                                                                                                                                                                      |               |   |             |   |                 |   |                     |   |
| Risk phrases                           | R36/37 /38 | Irritating to Eyes, Respiratory System & Skin.                                                                                                                                                                       |               |   |             |   |                 |   |                     |   |
| Safety phrases                         | S 9        | Keep containers in well ventilated Area.                                                                                                                                                                             |               |   |             |   |                 |   |                     |   |
|                                        | ❖          | 3 Keep in cool place.                                                                                                                                                                                                |               |   |             |   |                 |   |                     |   |
|                                        | ❖          | 24/25 Avoid contact with skin & eyes.                                                                                                                                                                                |               |   |             |   |                 |   |                     |   |
|                                        | ❖          | 36/37/39 Wear suitable protective clothing, Gloves and eye/face protection shield.                                                                                                                                   |               |   |             |   |                 |   |                     |   |



## SECTION 16: OTHER INFORMATION

References: Not available.

Other Special considerations: Not available.

Last Updated: August 2014.

Information Contact: Technical Services Department.

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