National Company for Sulphur Products (closed joint stock)
الشركة الوطنية لمنتجات الكبريت (مساهمة مقفلة)

PHENOL FORMALDEHYDE RESIN LIQUID

Safety Data Sheet

Date of issue: 01/01/2021 Revision No.:1 Next Revision date: 01/01/2023

SECTION 1: Identification

1.1. Identification

Product Name : Phenol-formaldehyde-Resin Liquid (NCSP 501LR-PF Resin)
CAS-No. : 9003-35-4
Synonyms : Phenolic Resin

1.2. Recommended use and restrictions on use

Recommended use : Rockwool Binder

1.3. Manufacturer

Manufacturer Name : National Company for sulphur products

Address: National Company For Sulphur Products,
Head Office: P.O Box 2951, Riyadh 11461
Email: ncsp@ncsp.com.sa
Tel :011 4647711 Fax: 2170866

Factory: 3rd Industrial Area - Dammam

1.4. Emergency telephone number

Emergency number : Tel: 011 4647711 Fax: 2170866

SECTION 2: Hazard(s) identification

2.1 Classification of the substance or mixture

Ingredient(s)	CAS Number	Percent (W/W)
Phenol-Formaldehyde Resin	9003-35-4	Proprietary Information
Phenol (Free)	108-95-2	1-1.5
Formaldehyde (Free)	50-00-0	5-7

2.2. Health Hazard Information:

GHS CLASSIFICATIONS
Health: Serious Eye Damage/ Eye Irritation, Category 1
Skin Sensitization, Category 1B
Germ Cell Mutagenicity, Category 2
Carcinogenicity, Category 1B
Target Organ Toxicity (Single exposure), Category 3
Target Organ Toxicity (Repeated exposure), Category 1
Physical: Combustible Dust

GHS LABEL


Health Hazard


Corrosion


Exclamation Mark

SIGNAL WORD: DANGER
Hazard statement : Causes eye irritation.

Precautionary statement

Prevention	: Wash thoroughly after handling.
Response If in eyes	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If eye irritation persists	: Get medical advice/attention.
Storage	: Store away from incompatible materials.
Disposal	: Dispose of contents/container in accordance with local/regional/national/international regulations. Hazard(s) not otherwise classified (HNOC) : Not classified.

SECTION 3: Composition/Information on ingredients

3.1. Substances

Composition:

Ingredient(s)	CAS Number	Percent (W/W)
Phenol-Formaldehyde Resin	9003-35-4	Proprietary Information
Phenol (Free)	108-95-2	<1.5 %
Formaldehyde (Free)	50-00-0	5-7

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: Remove victim from exposure and then have him lie down in the recovery position. Get medical attention if symptoms occur.
First-aid measures after skin contact	: Wash off with plenty of water. Remove and wash contaminated clothing before re-use. Obtain medical attention.
First-aid measures after eye contact	: Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. Obtain medical attention
First-aid measures after ingestion	: Clean mouth with water and drink afterwards plenty of water. Obtain medical attention.

4.3. Immediate medical attention and special treatment, if necessary

Obtain medical assistance.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

5.2. Specific hazards arising from the chemical

Fire hazard : The material is not readily combustible under normal conditions. Decomposes on heating emitting toxic fumes Not considered to be a significant fire risk.

5.3. Special protective equipment and precautions for fire-fighters

Protective precautions for firefighters	: Firefighters wear breathing apparatus. Protection during firefighting
Combustion resulting from gas	: Not applicable
Hazchem code	: None allotted.
Auto ignition Temperature	: Not Applicable
Flash Point	: Not Applicable
Flammable Limits, Lower	: Not Applicable
Flammable Limits, Upper	: Not Applicable
NFPA Rating (estimated)	: Health: 1; Flammable: 0; Instability: 0

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Safety glasses. Dust mask
Emergency procedures	: Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

Methods for cleaning : Wear protective equipment and damp dust before filling it into containers.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Smoking, eating and drinking should be prohibited in the application area. Work under fume hood. Do not inhale fumes. Avoid contact with skin and eyes. Take off all contaminated clothing immediately. Wash hands and face before breaks and immediately after handling the product. Do not empty into drains.

Hygiene measures : Wash exposed skin thoroughly after handling.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store at 5°C in a well-ventilated place. Keep well closed and protected from direct sunlight and moisture. As the material is hygroscopic, keep containers sealed. Keep away from any ignition sources.

Incompatible material : Moisture.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

EXPOSURE LIMITS : Not available

8.2. Appropriate engineering controls

ENGINEERING CONTROLS : Use in a well-ventilated area. Use local exhaust ventilation to remove air borne emissions below the applicable exposure limits and guidelines

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment:
Gloves. Safety glasses.

Hand protection:
Wear protective gloves.
Eye protection:
Chemical goggles or safety glasses
Skin and body protection:
Wear suitable protective clothing
Respiratory protection:
Wear dust mask. Selection of the Class and Type of respirator will depend upon the level of Breathing zone contaminant and the chemical nature of the contaminant.
Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

PHYSICAL DATA:

Boling Point	: 220°F
Melting Point	: N.A.
Vapor Pressure	: N.D.
Vapor Density	: N.D.
Density	: 1.17 ± 0.05 g m / c c
pH	: 7.5 – 8.5
Color	: Reddish-brown
Odor	: Characteristic phenolic resin odor
Physical State	: Reddish brown liquid

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

If stored and handled in accordance with standard industrial practices, no hazardous reactions are known.

10.2. Chemical stability

Product is stable at normal temperatures and storage conditions, but will polymerize at high temperatures with some evolution of heat.

10.3. Possibility of hazardous reactions

Hazardous Polymerization: Hazardous polymerization will not occur under normal conditions

10.4. Conditions to avoid

Heat, flame, ignition sources and incompatible substances.

10.5. Incompatible materials

Strong mineral acids such as sulfuric or hydrochloric acid, oxidizers

10.6. Hazardous decomposition products

Free phenol and free formaldehyde may be released as well as their decomposition products, and carbon monoxide and/or carbon dioxide and other unidentified organic compounds.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: The product has not been tested. The statement that is toxic by inhalation, in contact with skin and if swallowed is based on properties of the **formaldehyde.**
Acute oral toxicity	: LD50: 460-830 mg/kg bw ;(rat).
Acute dermal toxicity	: LD50: 270 mg/kg (rabbit)
Acute inhalation toxicity	: LC50 (4 h) rat = 588 mg/m³ = 490 ppm LC50 (30 min) rat = 1000 mg/m³ = 830 ppm
LOCAL EFFECTS	: Depends on the concentration and duration of exposure, aqueous solutions can cause a strongly irritating or corrosive effect on the skin or eyes.
Skin irritation	: Corrosive (rabbit)
Eye irritation	: Irreversible damage (rabbit)
Skin sensitization	: Aqueous solutions can cause skin sensitization in animal experiments and in humans. Carcinogenicity Formaldehyde is classified as carcinogenic category 2 (Carc. Cat.2), in accordance with Regulation 272/2008 EC, Annex VI. After lifelong inhalation exposure to concentrations that were severely damaging to the nasal epithelium, nasal tumors were induced in rats; in other species these findings were not found or were considerably less pronounced. The International Agency for Research on Cancer (IARC) has classified formaldehyde as a Group 1 (known) human carcinogen based on epidemiological

	evidence linking formaldehyde exposure to occurrence of nasopharyngeal cancer and leukemia.
Toxicity to reproduction	: There is no evidence for adverse effects of formaldehyde on embryo and fetal development at dose levels inducing local maternal effects and secondary decrease in body weights and growth.

SECTION 12: Ecological information

12.1. Toxicity

Chemical Name	ORAL LD50	DERMAL LD50	INHALATION LC50
Phenol	317 mg/ kg BW (rat)	630 mg/ kg BW (rabbit)	316 mg/ m3 (rat/ 1h)
Formaldehyde	800 mg/ kg BW (rat)	270 mg/ kg BW (rabbit)	578 mg/ m3 (rat/ 1h)

DERMAL LD50: > 5000 mg/ kg bodyweight (rabbit)
Notes: Mixture - Acute Toxicity Estimate (ATE)
ORAL LD50: > 5000 mg/ kg bodyweight (rat)
Notes: Mixture - Acute Toxicity Estimate (ATE)
INHALATION LC50: No data available.
SKIN CORROSION/IRRITATION: No data available.
SERIOUS EYE DAMAGE/IRRITATION: Contact may cause severe eye irritation or damage.

RESPIRATORY OR SKIN SENSITISATION: May cause allergic respiratory and skin reactions.
GERM CELL MUTAGENICITY: Phenol: Classified as a mutagen (Category 2).

12.2. Persistence and degradability

Biodegradation : Phenol-formaldehyde polymers have a very low rate of biodegradation.

12.3. Bioaccumulative potential

Bio-accumulation is expected to be minimal.

12.4. Mobility in soil

Un reacted monomer may be leached into ground water even after normal curing has occurred.

SECTION 13: Disposal considerations

Dispose of contents/container in accordance with national and international regulations.

SECTION 14: Transport information

Not classified as dangerous goods according to international transport legislation (ADR, RID, IMDG).
Transport in clean and dry containers and comply with conditions of storage. Do not transport together with food and incompatible materials.

If spillage of the roadway, confined spill, absorb with inert material (e.g. sand) and wash spill area with water.

SECTION 15: Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
Regulation EC 1907/2006 (REACH), Directive 67/548/EEC and 1999/45/EC ,
Regulation EC 1272/2008 (CLP), Regulation (EC) 453/2010,
15.2 Chemical safety assessment
In accordance with REACH Article 14, a Chemical Safety Assessment has been carried out for formaldehyde.

SECTION 16: Other Information

Preparation Date : 01/01/2021
Revision Date : 01/01/2023
Prepared by : National Company For Sulphur products

Disclaimer

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