

# SAFETY DATA SHEET

Version: v1

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## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : Phenol Solution  
Product Number : P117348  
Brand : aladdin  
CAS-No. : 108-95-2(water)

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances.

### 1.3 Company

Company : ALADDIN SCIENTIFIC CORPORATION  
Address : 14078 Meridian Parkway,  
Riverside, CA. 92518  
Telephone : +1 (833) 552-7181  
Fax : no data available

### 1.4 Emergency telephone number

CHEMTREC®, Inside the USA : 1-800-424-9300  
CHEMTREC®, Outside the USA :

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 3), H301

Acute toxicity, Inhalation (Category 3), H331

Acute toxicity, Dermal (Category 3), H311

Skin corrosion/irritation (Category 1B), H314

Serious eye damage/eye irritation (Category 1), H318

Germ cell mutagenicity (Category 2), H341

Specific target organ toxicity - repeated exposure (Category 2), Nervous system, Kidney, Liver, Skin, H373

Short-term (acute) aquatic hazard (Category 2), H401

Long-term (chronic) aquatic hazard (Category 2), H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

## 2.2 GHS Label elements, including precautionary statements

|                                   |                                                                                                                                  |
|-----------------------------------|----------------------------------------------------------------------------------------------------------------------------------|
| <b>Pictogram</b>                  |                                                 |
| <b>Signal word</b>                | Danger                                                                                                                           |
| <b>Hazard statement(s)</b>        |                                                                                                                                  |
| H314                              | Causes severe skin burns and eye damage                                                                                          |
| H341                              | Suspected of causing genetic defects                                                                                             |
| H373                              | Causes damage to organs through prolonged or repeated exposure                                                                   |
| H411                              | Toxic to aquatic life with long lasting effects                                                                                  |
| H301+H311+H331                    | Toxic if swallowed, in contact with skin or if inhaled                                                                           |
| <b>Precautionary statement(s)</b> |                                                                                                                                  |
| P201                              | Obtain special instructions before use.                                                                                          |
| P202                              | Do not handle until all safety precautions have been read and understood.                                                        |
| P260                              | Do not breathe dust/fume/gas/mist/vapors/spray.                                                                                  |
| P264                              | Wash hands [and ...] thoroughly after handling.                                                                                  |
| P270                              | Do not eat, drink or smoke when using this product.                                                                              |
| P271                              | Use only outdoors or in a well-ventilated area.                                                                                  |
| P273                              | Avoid release to the environment.                                                                                                |
| P280                              | Wear protective gloves/protective clothing/eye protection/face protection.                                                       |
| P310                              | Immediately call a POISON CENTER or doctor/physician.                                                                            |
| P330                              | Rinse mouth.                                                                                                                     |
| P391                              | Collect spillage.                                                                                                                |
| P301+P310                         | IF SWALLOWED: Immediately call a POISON CENTER/doctor/...                                                                        |
| P301+P330+P331                    | IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.                                                                               |
| P303+P361+P353                    | IF ON SKIN (or hair): Take off Immediately all contaminated clothing. Rinse SKIN with water [or shower].                         |
| P304+P340                         | IF INHALED: Remove person to fresh air and keep comfortable for breathing.                                                       |
| P305+P351+P338                    | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing. |
| P308+P313                         | IF exposed or concerned: Get medical advice/attention.                                                                           |
| P361+P364                         | Take off immediately all contaminated clothing and wash it before reuse.                                                         |
| P405                              | Store locked up.                                                                                                                 |
| P403+P233                         | Store in a well-ventilated place. Keep container tightly closed.                                                                 |
| P501                              | Dispose of contents/container to an approved waste disposal plant.                                                               |

## 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

### SECTION 3: Composition/information on ingredients

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## 3.2 Mixtures

|                  |                     |
|------------------|---------------------|
| Synonyms         | : no data available |
| Formula          | : no data available |
| Molecular weight | : no data available |

| Component          | Classification                                                                                                                                                                                                                                                                      | Concentration |
|--------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|
| <b>Phenol</b>      |                                                                                                                                                                                                                                                                                     |               |
| CAS-No. : 108-95-2 | Acute toxicity category 3; Skin corrosion/sting Excitation class 1B; Serious eye injury/eye                                                                                                                                                                                         |               |
| EC-No. : 203-632-7 | Eye irritation category 1; Germ cell induced Mutability category 2; Specific target organ Systemic toxicity (repeated exposure) category 2; Acute (short-term) aquatic hazard category 2; Long-term aquatic hazard category 2; H301, H331, H311, H314, H318, H341, H373, H401, H411 |               |

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice

First aiders need to protect themselves. Show this material safety data sheet to the doctor in attendance.

#### If inhaled

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

#### In case of skin contact

After contact with skin: rinse out with polyethylene glycol 400 or a mixture of polyethylene glycol 300/ethanol 2:1 and wash with plenty of water. If neither is available wash with plenty of water. Immediately take off contaminated clothing. Call a physician immediately.

#### In case of eye contact

After eye contact: rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.

#### If swallowed

If swallowed: give water to drink (two glasses at most). Seek medical advice immediately. In exceptional cases only, if medical care is not available within one hour, induce vomiting (only in persons who are wide awake and fully conscious), administer activated charcoal (20 - 40 g in a 10% slurry) and consult a doctor as quickly as possible. Do not attempt to neutralise.

### 4.2 Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### 4.3 Indication of any immediate medical attention and special treatment needed

no data available

## SECTION 5: Firefighting measures

## 5.1 Extinguishing media

### Suitable extinguishing media

Water Foam Carbon dioxide (CO<sub>2</sub>) Dry powder

### Unsuitable extinguishing media

no data available

## 5.2 Special hazards arising from the substance or mixture

Carbon oxides Combustible. Vapors are heavier than air and may spread along floors. Forms explosive mixtures with air on intense heating. Development of hazardous combustion gases or vapours possible in the event of fire.

## 5.3 Advice for firefighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## 5.4 Further information

Remove container from danger zone and cool with water. Prevent fire extinguishing water from contaminating surface water or the ground water system.

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## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Avoid generation and inhalation of dusts in all circumstances. Avoid substance contact. Ensure adequate ventilation. Keep away from heat and sources of ignition. Evacuate the danger area, observe emergency procedures, consult an expert. For personal protection see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully. Dispose of properly. Clean up affected area. Avoid generation of dusts.

### 6.4 Reference to other sections

For disposal see section 13.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Work under hood. Do not inhale substance/mixture. Keep away from open flames, hot surfaces and sources of ignition. Take precautionary measures against static discharge. Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Tightly closed. Dry. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or

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authorized persons.

**7.3 Specific end use(s)**

no data available

**SECTION 8: Exposure controls/personal protection****8.1 Control parameters**

Hazard composition and occupational exposure limits

| Component | CAS No.  | Value  | Control parameters | Basis                                                                                            |
|-----------|----------|--------|--------------------|--------------------------------------------------------------------------------------------------|
| Phenol    | 108-95-2 | PC-TWA | 10 mg/m3           | Occupational exposure limits for hazardous factors in the workplace - chemical hazardous factors |
|           | Note     | Skin   |                    |                                                                                                  |

Biological limits

| Component | CAS No.  | parameters                   | Value                    | Biological specimens | Basis                                  |
|-----------|----------|------------------------------|--------------------------|----------------------|----------------------------------------|
| Phenol    | 108-95-2 | Phenol                       | 150mmol / mol creatinine | urine                | Occupational exposure biological limit |
|           | Note     | End of shift at work weekend |                          |                      |                                        |
|           |          | Phenol                       | 125mg/g creatinine       | urine                | Occupational exposure biological limit |
|           |          | End of shift at work weekend |                          |                      |                                        |

**8.2 Exposure controls****Appropriate engineering controls**

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

**Personal protective equipment****Eye/face protection**Phone: +1 (833) 552-7181 Email: QualityAssurance@aladdinsci.com Website: <https://www.aladdinsci.com/>

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Tightly fitting safety goggles

#### Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Body Protection

Flame retardant antistatic protective clothing.

#### Respiratory protection

required when dusts/vapours/aerosols are generated. Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### Control of environmental exposure

Do not let product enter drains.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

|                                                 |                   |
|-------------------------------------------------|-------------------|
| a) Appearance                                   | no data available |
| b) Odour                                        | no data available |
| c) Odour Threshold                              | no data available |
| d) pH                                           | no data available |
| e) Melting point/freezing point                 | no data available |
| f) Initial boiling point and boiling range      | no data available |
| g) Flash point                                  | no data available |
| h) Evaporation rate                             | no data available |
| i) Flammability (solid, gas)                    | no data available |
| j) Upper/lower flammability or explosive limits | no data available |
| k) Vapour pressure                              | no data available |
| l) Vapour density                               | no data available |
| m) Relative density                             | no data available |
| n) Water solubility                             | no data available |
| o) Partition coefficient: n-octanol/water       | no data available |
| p) Auto-ignition temperature                    | no data available |
| q) Decomposition temperature                    | no data available |
| r) Viscosity                                    | no data available |
| s) Explosive properties N                       | no data available |
| t) Oxidizing properties N                       | no data available |

### 9.2 Other safety information

no data available

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

no data available

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

Exothermic reaction with: Aluminum Aldehydes halogens hydrogen peroxide iron(III) compounds Oxidizing agents  
Strong acids Strong bases formaldehyde Risk of explosion with: nitrites nitrates salts of oxyhalogenic acids peroxi  
compounds

### 10.4 Conditions to avoid

Strong heating.

### 10.5 Incompatible materials

rubber, various plastics, various alloys, various metals

### 10.6 Hazardous decomposition products

In the event of fire: see section 5

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Acute toxicity estimate Oral - 100.1 mg/kg (Calculation method) Oral: No data available Acute toxicity estimate  
Inhalation - 4 h - 0.51 mg/l - dust/mist(Calculation method) Acute toxicity estimate Inhalation - 0.51 mg/l - dust/mist  
(Expert judgment) Acute toxicity estimate Dermal - 660 mg/kg (Calculation method) LD50 Dermal - Rat - female - 660  
mg/kg (OECD Test Guideline 402)

#### Skin corrosion/irritation

Skin - In vitro study Result: Causes burns. (OECD Test Guideline 431)

#### Serious eye damage/eye irritation

Eyes - Rabbit Result: Corrosive (OECD Test Guideline 405) Causes serious eye damage. Risk of blindness!

#### Respiratory or skin sensitisation

Sensitisation test: - Guinea pig Result: negative Remarks: (IUCLID)

#### Germ cell mutagenicity

Suspected of causing genetic defects. Test Type: Mutagenicity (mammal cell test): chromosome aberration. Test  
system: Chinese hamster ovary cells Metabolic activation: Metabolic activation Method: OECD Test Guideline 473  
Result: positive Test Type: Mutagenicity (mammal cell test): micronucleus. Test system: Chinese hamster ovary cells  
Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 487 Result: positive

**Carcinogenicity**

no data available

**Reproductive toxicity**

no data available

**Specific target organ toxicity - single exposure**

no data available

**Specific target organ toxicity - repeated exposure**

May cause damage to organs through prolonged or repeated exposure. - Nervous system, Kidney, Liver, Skin

**Aspiration hazard**

no data available

**Additional Information**

RTECS: SJ3325000 Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, Circulatory collapse, tachypnea, paralysis, Convulsions, Coma., necrosis of mouth and G.I. Tract, Jaundice, respiratory failure, cardiac arrest To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

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**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish flow-through test LC50 - *Onchorhynchus clarki* - 8.9 mg/l - 96 h (US-EPA) Toxicity to daphnia and other aquatic invertebrates static test EC50 - *Ceriodaphnia dubia* (water flea) - 3.1 mg/l - 48 h (US-EPA) Toxicity to algae static test EC50 - *Pseudokirchneriella subcapitata* (algae) - 61.1 mg/l - 96 h (US-EPA) Toxicity to bacteria static test IC50 - microorganisms - 21 mg/l - 24 h Remarks: (ECHA)

**12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 100 h Result: 62 % - Readily biodegradable. (OECD Test Guideline 301C)

**12.3 Bioaccumulative potential**

Bioaccumulation *Danio rerio* (zebra fish) - 5 h at 25 °C - 2 mg/l(Phenol) Bioconcentration factor (BCF): 17.5 (OECD Test Guideline 305) Remarks: Does not bioaccumulate.

**12.4 Mobility in soil**

no data available

**12.5 Results of PBT and vPvB assessment**

no data available

**12.6 Other adverse effects**

no data available

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**SECTION 13:**

**13.1 Disposal considerations**

**Product**  
 Offer surplus and non-recyclable solutions to a licensed disposal company.  
**Contaminated packaging**  
 no data available

**SECTION 14: Transport information**

|                              |                                            |                                             |
|------------------------------|--------------------------------------------|---------------------------------------------|
| <b>DOT (US)</b>              |                                            |                                             |
| UN number: 1671              | Packing group: II                          | Class: 6.1                                  |
| Proper shipping name: PHENOL | Reportable Quantity(RQ): no data available | Poison Inhalation Hazard: no data available |
| Environmental Hazards: yes   |                                            |                                             |
| <b>IMDG</b>                  |                                            |                                             |
| UN number: 1671              | Packing group: II                          | EMS-No: no data available                   |
| Proper shipping name: PHENOL |                                            |                                             |
| <b>IATA</b>                  |                                            |                                             |
| UN number: 1671              | Packing group: II                          | Class: 6.1                                  |
| Proper shipping name: PHENOL |                                            |                                             |

**SECTION 15: Regulatory information**

Safety, health and environmental regulations/legislation specific for the substance or mixture  
 National regulatory information  
 Law on the Prevention and Control of Occupational Diseases  
 Regulations on Safety Management of Hazardous Chemicals  
 Catalogue of Hazardous Chemicals : Listed  
 Other regulations  
 Please pay attention on the waste treatment should also comply with local regulations requirement.

**SECTION 16: Other information**

|                         |                                                                                                |
|-------------------------|------------------------------------------------------------------------------------------------|
| <b>Prepared By</b>      | Regulatory Affairs<br>ALADDIN SCIENTIFIC CORPORATION<br>Email: QualityAssurance@aladdinsci.com |
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| <b>Revision Summary</b> | SDS sections updated v1                                                                        |

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