

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: PHENOL

CAS Number: 108-95-2

1. IDENTIFICATION:

Product Code : 90489, 90206, 91191, 98257

Company Name : ADVENT CHEMBIO PRIVATE LIMITED

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2. HAZARDS IDENTIFICATION:**Hazard classification****Health hazards**

Acute toxicity, Oral : Category 3

Acute toxicity, Dermal : Category 3

Acute toxicity, Inhalation : Category 3

Skin corrosion : Sub-category 1B

Serious eye damage : Category 1

Germ cell mutagenicity : Category 2

Specific target organ toxicity - repeated exposure, Nervous system, Kidney, Liver, Skin : Category 2

Long-term (chronic) aquatic hazard : Category 2

Labels elements :**Hazard symbol** :**Signal word** : Danger**Hazard statement**

Toxic if swallowed, in contact with skin or if inhaled.
Causes severe skin burns and eye damage.
Suspected of causing genetic defects.
May cause damage to organs (Nervous system, Kidney, Liver, Skin) through prolonged or repeated exposure.
Toxic to aquatic life with long lasting effects.

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Precautionary statement

- Prevention** : Obtain special instructions before use.
Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. Do not handle until all safety precautions have been read and understood.
Wear protective gloves/ protective clothing/ eye protection/ face protection.
Keep away from heat/ sparks/ open flames/ hot surfaces. No smoking.
Keep container tightly closed. Ground/ bond container and receiving equipment.
Use explosion-proof electrical/ ventilating/ lighting/ equipment.
Use only non-sparking tools. Take precautionary measures against static discharge.
- Response** : IF exposed or concerned: Get medical advice/ attention.
IF ON SKIN (or hair): 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.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
- Storage** : Store in a dry & well-ventilated place. Keep container tightly closed. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
- Disposal** : Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
- Other hazards which do not result in GHS classification** : This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher. Vesicant. Rapidly absorbed through skin.

3. COMPOSITION/ INFORMATION ON INGREDIENTS:

Ingredient	CAS Number	Percent	Hazardous
Phenol	108-95-2	NLT 99.0%	Yes

4. FIRST AID MEASURES:

- General information** : Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Rinse mouth. Do NOT induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. If breathing is difficult, give oxygen.
- Inhalation** : provide artificial respiration. If breathing is difficult, give oxygen.
Get medical attention if symptoms persist.
- Skin contact** : After contact with skin: rinse out with polyethylene glycol 400 or a mixture of polyethylene

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Eye contact	: Rinse out with plenty of water. Immediately call in ophthalmologist. Remove contact lenses.
If swallowed	: 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. 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.
Most important symptoms/effects, acute and delayed	: The most important known symptoms and effects are described in the labelling.
Indication of immediate medical attention and special treatment needed	: No data available

5. FIRE FIGHTING MEASURES:**General information****Suitable (and unsuitable) extinguishing media**

Suitable extinguishing media : Water, Foam, Carbon dioxide (CO₂), Dry powder.

Unsuitable extinguishing media : For this substance/mixture no limitations of extinguishing agents are given.

Specific hazards arising from the chemical : 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 vapors possible in the event of fire.

Special protective equipment and precautions for firefighters

Special firefighting procedures : Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire. Fight fire from a protected location. Move containers from fire area if you can do so without risk.

Special protective equipment for fire-fighters : Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

6. ACCIDENTAL RELEASE MEASURES:

Personal precautions, protective equipment and emergency procedures : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).
: Avoid breathing mists or vapors. Keep upwind. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up : Eliminate all ignition sources if safe to do so. Use only non-sparking tools. Take precautionary measures against static discharges. Stop leak if possible without any risk.
: Absorb spill with vermiculite or other inert material, then place in a container for chemical waste. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spill for later recovery and disposal.

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- Notification Procedures** : Prevent entry into waterways, sewer, basements or confined areas. Inform authorities if large amounts are involved.
- Environmental precautions** : Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

7. HANDLING AND STORAGE:

- Precautions for safe handling** : Do not handle until all safety precautions have been read and understood.
 DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight.
 Take precautionary measures against static discharges. Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools. Wear protective gloves/protective clothing/eye protection/ face protection.
 Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Use only with adequate ventilation.
 Wash hands thoroughly after handling.
- Conditions for safe storage, including any incompatibilities** : Keep away from food, drink and animal feeding stuffs. Keep container tightly closed in a dry, well-ventilated place.

8. EXPOSURE CONTROLS PERSONAL PROTECTION:

Control parameters

Ingredients with workplace control parameters

Derived No Effect Level (DNEL)

Application Area	Routes of exposure	Health effect	Value
Worker DNEL, longterm	inhalation	Systemic effects	8 mg/m ³
Worker DNEL, longterm	dermal	Systemic effects	NA

Predicted No Effect Concentration (PNEC)

Compartment	Value
Fresh water	0,0077 mg/l
Sea water	0,00077 mg/l
Fresh water sediment	0,0915 mg/kg
Sea sediment	0,00915 mg/kg
Soil	0,136 mg/kg

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Sewage treatment plant	2,1 mg/l
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Appropriate engineering**controls** : No data available**Individual protection measures, such as personal protective equipment**

General information : Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area. Use explosion-proof ventilation equipment.

Eye/face protection : Wear safety glasses with side shields (or goggles).

Hand protection : Chemical resistant gloves.

Other : Wear suitable protective clothing.

Respiratory protection : Recommended Filter type: Filter A-(P3)
: The entrepreneur has to ensure that maintenance, cleaning and testing of respiratory protective devices are carried out according to the instructions of the producer. These measures have to be properly documented.

Hygiene measures : Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Provide eyewash station and safety shower. Avoid contact with eyes, skin, and clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES:

Appearance : Colourless hygroscopic crystals or crystalline masses

Odor : Stinging

Miscibility : Miscible with hot water, ethanol, ether, chloroform, glycerol, carbon disulphide and aqueous solutions of alkali metal hydroxides. 8.2 g miscible in 100 ml water at 15°C.

Formula : C₆H₆O

Molecular Weight : 94.11 g/mol

Density : 1.13 g/cm³ at 25°C

pH : 4.5 - 6.0

Boiling Point : 181.8°C

Melting Point : 38- 43°C

Flash Point : 79 °C

Auto ignition Temperature : 715 °C at 1.013 hPa

Vapor Pressure (mm Hg) : 0.53 hPa at 20 °C

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Surface tension : 38.2 mN/m at 50 °C
Relative vapor density : 3.2 at 20 °C - (Air = 1.0)

10. STABILITY AND REACTIVITY:

Forms explosive mixtures with air on intense heating. A range from approx. 15 Kelvin below the flash point is to be rated as critical.

Reactivity : The following applies in general to flammable organic substances and mixtures: in correspondingly fine distribution, when whirled up a dust explosion potential may generally be assumed.

Chemical stability : Material is stable under ambient conditions. Contains the following stabilizer(s): Hypophosphorous acid (0,15 %)

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.

Conditions to avoid : Strong heating.

Incompatible materials : Rubber, various plastics, various alloys, various metals

Hazardous decomposition products : In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION:**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)****Acute toxicity estimate**

Oral : 100.1 mg/kg (Calculation method)

Acute toxicity estimate

Oral : 100.1 mg/kg (Expert judgment)

Acute toxicity estimate

Inhalation : 4 h – 0.51 mg/l - dust/mist(Calculation method)

Acute toxicity estimate

Inhalation : 4 h - 0,51 mg/l - dust/mist (Expert judgment)

Acute toxicity estimate

Dermal : 660 mg/kg (Calculation method) LD50 Dermal - Rat - female - 660 mg/kg

Acute toxicity estimate

Dermal : 660 mg/kg (Calculation method)

Repeated dose toxicity

Product : No data available.

Skin corrosion/irritation

Product : Skin - In vitro study
Result: Causes burns

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Serious eye damage/eye irritation Product	:	Eyes – Rabbit Result: Corrosive.
Respiratory or skin sensitization Product	:	Sensitisation test: - Guinea pig Result: negative
Carcinogenicity Product	:	This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP, or EPA classification.
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 Result: positive Test Type: Mutagenicity (mammal cell test): micronucleus. Test system: Chinese hamster ovary cells Metabolic activation: with and without metabolic activation Result: positive
Reproductive toxicity Product	:	No data available
Specific target organ toxicity - single exposure Product	:	No data available
Specific target organ toxicity - repeated exposure Product	:	May cause damage to organs through prolonged or repeated exposure. - Nervous system, Kidney, Liver, Skin
Aspiration hazard Product	:	No data available
Other effects	:	No data available

12. ECOLOGICAL INFORMATION:

Ecotoxicity

Acute hazards to the aquatic environment

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

Chronic hazards to the aquatic environment

Toxicity to fish(Chronic toxicity)	:	Semi-static test NOEC - Fish - 0,077 mg/l - 60 d
Toxicity to daphnia and other aquatic invertebrates(Chronic toxicity)	:	Semi-static test NOEC - Daphnia magna (Water flea) - 0,16 mg/l - 16 d
Toxicity to Aquatic Plants Product	:	No data available.

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Persistence and degradability**Biodegradation Product** : aerobic - Exposure time 100 h Result: 62 % - Readily biodegradable.**BOD/COD ratio Product** : No data available.**Bioaccumulative potential****Bioconcentration factor (BCF) Product** : Danio rerio (zebra fish) - 5 h at 25 °C - 2 mg/l(Phenol): Bioconcentration factor (BCF): 17.5
Remarks: Does not bioaccumulate.**Partition coefficient n-octanol / water (log Kow) Product** : No data available.**Mobility in soil** : No data available**Other adverse effects** : No data available**13. DISPOSAL CONSIDERATION:****Disposal instructions** : Discharge, treatment, or disposal may be subject to national, state, or local laws. Disposal recommendations are based on uncontaminated material.**Contaminated packaging** : Since emptied containers retain product residue, follow label warnings even after container is emptied.**14. TRANSPORT INFORMATION:**

	UN No.	UN proper shipping name	Hazard Class(es)	Packaging group	Marine Pollutant
ADR/RID	UN 1671	Phenol	6.1	II	Yes
IMDG	UN 1671	Phenol	6.1	II	Yes
IATA	UN 1671	Phenol	6.1	II	No

15. REGULATORY INFORMATION:

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

Safety, health and environmental regulations/legislation specific for the substance or mixture

No Data Available.

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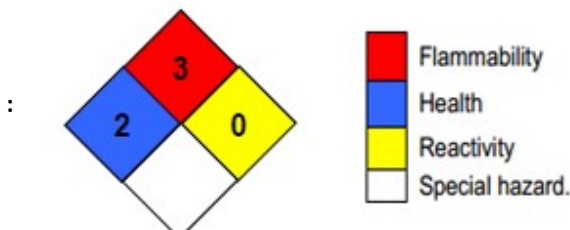
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16. OTHER INFORMATION:

NFPA Hazard ID



Hazard rating: 0 - Minimal; 1 - Slight; 2 - Moderate; 3 - Serious; 4 - Severe

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