

MATERIAL SAFETY DATA SHEET

Product Name: Phenol

CAS No. 108-95-2

Version: 0

1. Identification

Product Code : 90206, 90489
Company Name : Advent Chembio Private Limited
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2. Composition/Information on Ingredients

Ingredient	CAS No	Percent
PHENOL	108-95-2	99- 100%

3. Hazards Identification**Hazard classification****Physical hazards**

Flammable liquids : Category 4

Health hazards

Acute toxicity (Oral) : Category 3

Acute toxicity (Dermal) : Category 3

Acute toxicity (Inhalation - vapor) : Category 3

Skin corrosion/irritation : Category 1

Serious eye damage/eye irritation : Category 1

Germ cell mutagenicity : Category 2

Specific target organ toxicity - single exposure : Category 2

Unknown toxicity

Acute toxicity, inhalation, vapor : 100 %

Acute toxicity, inhalation, dust or mist : 100 %

Environmental hazards

Acute hazards to the aquatic environment : Category 1

Labels elements

MATERIAL SAFETY DATA SHEET

Product Name: Phenol

CAS No. 108-95-2

Version: 0

Hazard symbol**Signal word****Hazard statement**

- : Danger
- : Combustible liquid.
- Toxic if swallowed.
- Toxic if inhaled.
- Toxic in contact with skin.
- Causes severe skin burns and eye damage.
- Suspected of causing genetic defects.
- May cause damage to organs through prolonged or repeated exposure.
- Very toxic to aquatic life.

Precautionary statement**Prevention**

- : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Do not eat, drink or smoke when using this product. Wear protective gloves/protective clothing/eye protection/face protection. Use only outdoors or in a well-ventilated area. Wash hands thoroughly after handling. Avoid release to the environment.

Response

- : Immediately call a POISON CENTER or doctor/physician. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Specific treatment. Collect spillage.

Storage**Disposal**

- : Store in a well-ventilated place. Keep cool. Store locked up. 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

- : None.

MATERIAL SAFETY DATA SHEET

Product Name: Phenol

CAS No. 108-95-2

Version: 0

4. First Aid Measures

- General information** : Get medical advice/attention if you feel unwell. If medical advice is needed, have product container or label at hand. Show this safety data sheet to the doctor in attendance.
- Ingestion** : Call a physician or poison control center immediately. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
- Inhalation** : Move to fresh air. Call a physician or poison control center immediately. If breathing stops, provide artificial respiration.
- Skin contact** : Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
- Eye contact** : Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention immediately .
- Most important symptoms/effects, acute and delayed Symptoms** : Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled. Corrosive to skin and eyes.
- Indication of immediate medical attention and special treatment needed** : Treat symptomatically. Symptoms may be delayed.

5. Fire fighting measures

- General fire hazards** : Combustible liquid.
- Suitable (and unsuitable) extinguishing media**
- Suitable extinguishing media** : Water spray, foam, dry powder or carbon dioxide.
- Unsuitable extinguishing media** : Avoid water in straight hose stream; will scatter and spread fire.
- Specific hazards arising from the chemical** : Combustible liquid. Contact with strong oxidizers may cause fire. Heat may cause the containers to explode.
- Special protective equipment and precautions for firefighters**
- Special fire fighting 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.

MATERIAL SAFETY DATA SHEET

Product Name: Phenol

CAS No. 108-95-2

Version: 0

6. Accidental Release Measures

- Personal precautions, protective equipment and emergency procedures** : ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away. Keep upwind. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them.
- Methods and material for containment and cleaning up** : Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharges. Stop leak if possible without any risk. Use only non-sparking tools. 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.
- Notification Procedures** : Dike for later disposal. Prevent entry into waterways, sewer, basements or confined areas. Stop the flow of material, if this is without risk. 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, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Use personal protective equipment as required. Take precautionary measures against static discharge. Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Do not taste or swallow. Do not eat, drink or smoke when using the product. Wear protective gloves/protective clothing/eye protection/face protection. 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. Keep in a cool, well-ventilated place. Store in a dry place. Ground container and transfer equipment to eliminate static electric sparks. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids .

MATERIAL SAFETY DATA SHEET

Product Name: Phenol

CAS No. 108-95-2

Version: 0

8. Exposure Controls Personal Protection

Control parameters

Occupational exposure limits

Chemical identity	Type	Exposure Limit values	Source
PHENOL	TWA	5 ppm	US. ACGIH Threshold Limit Values (2011)
	REL	5 ppm 19 mg/m ³	US. NIOSH: Pocket Guide to Chemical Hazards (2010)
	PEL	5 ppm 19 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)
	TWA	5 ppm 19 mg/m ³	US. OSHA Table Z-1-A (29 CFR 1910.1000) (1989)
	TWA	5 ppm 19 mg/m ³	US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A (06 2008)
	ST ESL	150 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	AN ESL	19 µg/m ³	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	AN ESL	5 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	ST ESL	40 ppb	US. Texas. Effects Screening Levels (Texas Commission on Environmental Quality) (07 2011)
	TWA PEL	5 ppm 19 mg/m ³	US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants (08 2010)

Biological limit values

Chemical identity	Exposure Limit values	Source
PHENOL (Phenol with hydrolysis: Sampling time: End of shift.)	250 mg/g (Creatinine in urine)	ACGIH BEL (2011)

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

MATERIAL SAFETY DATA SHEET**Product Name:** Phenol**CAS No.** 108-95-2**Version:** 0

	available in the immediate work area. Use explosion-proof ventilation equipment.
Eye/face protection	: Wear safety glasses with side shields (or goggles) and a face shield.
Hand protection	: Chemical resistant gloves.
Other	: Wear suitable protective clothing.
Respiratory protection	: In case of inadequate ventilation use suitable respirator.
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 to remove contaminants. Discard contaminated footwear that cannot be cleaned. Provide eyewash station and safety shower.

9. Physical and Chemical Properties

Appearance	: Colorless liquid.
Odor	: No data available.
pH	: No data available.
Melting point/freezing point	: No data available.
Initial boiling point and boiling range	: 182 °C
Flash Point	: 79 °C
Vapor pressure	: 0.1 kPa
Vapor density	: No data available.
Relative density	: 1.06 (20 °C)
Solubility in water	: Soluble
Solubility (other)	: No data available.
Formula	: C ₆ H ₆ O
Molecular Weight	: 94.11 g/mol

10. Stability and Reactivity

Reactivity	: No dangerous reaction known under conditions of normal use .
Chemical stability	: Material is stable under normal conditions.
Possibility of hazardous reactions	: Hazardous polymerization does not occur.
Conditions to avoid	: Heat, sparks, flames. Contact with incompatible materials.
Incompatible materials	: Strong oxidizing agents. Acids. Calcium hypochlorite. Aluminum.
Hazardous decomposition products	: Thermal decomposition may release oxides of carbon. By heating and fire, irritating vapors/gases may be formed. By heating and fire, toxic vapors/gases may be formed.

MATERIAL SAFETY DATA SHEET

Product Name: Phenol

CAS No. 108-95-2

Version: 0

11. Toxicological Information**Information on likely routes of exposure**

Ingestion	:	Toxic if swallowed.
Inhalation	:	Toxic if inhaled.
Skin contact	:	Toxic in contact with skin. Causes severe skin burns.
Eye contact	:	Causes serious eye damage.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product	:	No data available.
Specified substance(s): PHENOL	:	LD 50 (Rat): 317 mg/kg
Dermal Product	:	ATEmix (Rabbit): 923.91 mg/kg
Inhalation Product	:	No data available.
Repeated dose toxicity Product	:	No data available.
Skin corrosion/irritation Product	:	Causes severe skin burns.
Serious eye damage/eye irritation Product	:	Causes serious eye damage.
Respiratory or skin sensitization Product	:	Not a skin sensitizer.
Carcinogenicity Product	:	No data available.
IARC Monographs on the Evaluation of Carcinogenic Risks to Humans DIOXANE	:	No carcinogenic components identified.
US. National Toxicology Program (NTP) Report on Carcinogens DIOXANE	:	No carcinogenic components identified.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050	:	No carcinogenic components identified.
Germ cell mutagenicity	:	
In vitro Product	:	Suspected of causing genetic defects.
In vivo Product	:	Suspected of causing genetic defects.
Reproductive toxicity Product	:	No data available.
Specific target organ toxicity - single exposure Product	:	No data available.
Specific target organ toxicity - repeated exposure Product	:	Liver, Nervous System, Skin, Kidney - May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard Product	:	Not classified
Other effects	:	None known.

MATERIAL SAFETY DATA SHEET

Product Name: Phenol

CAS No. 108-95-2

Version: 0

12. Ecological Information**Ecotoxicity****Acute hazards to the aquatic environment :**

Fish Product : No data available .
Specified substance(s): PHENOL LC 50 (Fathead minnow (Pimephales promelas), 96 h): 20.5 - 25.6 mg/l Mortality
LC 50 (Carp (Cyprinus carpio), 96 h): 0.00175 mg/l Mortality
LC 50 (Bluegill (Lepomis macrochirus), 96 h): 11.5 mg/l Mortality

Aquatic invertebrates Product : No data available.

Specified substance(s): PHENOL : LC 50 (Water flea (Daphnia magna), 96 h): 4 mg/l Mortality .

Chronic hazards to the aquatic environment :

Fish Product : No data available.
Aquatic invertebrates Product : No data available.
Toxicity to Aquatic Plants Product: : No data available.
Specified substance(s): PHENOL : LC 50 (Duckweed (Lemna minor), 72 h): 1,500 mg/l Mortality .

Persistence and degradability

Biodegradation Product : There are no data on the degradability of this product .

BOD/COD ratio Product : No data available.

Bioaccumulative potential

Bioconcentration factor (BCF) Product : No data available on bioaccumulation.

Product

Partition coefficient n-octanol / water (log Kow) Product : No data available.

Specified substance(s): PHENOL : Log Kow: 1.46

Mobility in soil : The product is water soluble and may spread in water systems.

Other adverse effects : Very toxic to aquatic organisms.

13. Disposal consideration

Disposal instructions : Discharge, treatment, or disposal may be subject to national, state, or local laws.

Contaminated packaging : Since emptied containers retain product residue, follow label warnings even after container is emptied.

MATERIAL SAFETY DATA SHEET

Product Name: Phenol

CAS No. 108-95-2

Version: 0

14. Transport Information

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

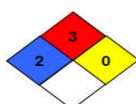
15. Regulatory Information

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.

16. Other Information

NFPA Hazard ID



■ Flammability
■ Health
■ Reactivity
 Special hazard.

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

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Product Name: Phenol**CAS No.** 108-95-2**Version:** 0