

Material Safety Data Sheets

1. IDENTIFICATION

Product Name	Phenol Extra pure
Other Names	Carbolic Acid; Hydroxybenzene; Monohydroxybenzene; Monophenol; Oxybenzene; Phenic Acid; Phenol; Phenyl Alcohol; Phenyl Hydrate; Phenyl hydroxide; Phenylic acid; Phenylic alcohol
Code No	100-PH-5
Uses	Phenol resin; Epoxy resin ; 2,4-D; The alternative solvent is used in the refined lubricating oil; Phenol; Sterilization coating; Pharmacy; Experiment reagent; Dyestuffs and indicator; Resist the corrupt pharmaceutical; General disinfectant; Industrial chemical.
Chemical Family	No Data Available
Chemical Formula	C ₆ H ₆ O
Chemical Name	Phenol
Company	Arman sina.co
Contact Information	info@armansina.com www.armansina.com

2. HAZARD IDENTIFICATION

Hazard Categories	Toxic
Risk Phrases	Toxic by inhalation, in contact with skin and if swallowed. Causes burns. Risk of serious eye damage. Harmful : danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Possible risk of irreversible effects.
Safety Phrases	Do not breathe aerosol/mist/vapour. Do not breathe aerosol/fumes. Avoid contact with skin and eyes. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. After contact with skin, wash immediately with plenty of soap and water. Wear suitable protective clothing, gloves and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Symbol



3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Chemical Entity	Formula	CAS Number	Proportion
Phenol	No Data Available	108-95-2	>99.0 %

4. FIRST AID MEASURES

Description of necessary measures according to routes of exposure

Swallowed	Immediately rinse mouth with water. If swallowed, do NOT induce vomiting. Give a glass of water. Get to a doctor or hospital quickly.
Eye	If in eyes, hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to a doctor or hospital quickly.
Skin	If on skin, immediately remove any contaminated clothing, wash skin with methylated spirit or PEG (polyethylene glycol) 300 or 400 if available, then flush with running water until advised to stop by the Poisons Information Centre or a doctor. For skin burns, cover with a clean, dry dressing until medical help is available.
Inhaled	Remove victim from area of exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep at rest until fully recovered. If patient finds breathing difficult and develops a bluish discolouration of the skin (which suggests a lack of oxygen in the blood - cyanosis), ensure airways are clear of any obstruction and have a qualified person give oxygen through a face mask. Apply artificial respiration if patient is not breathing. Seek immediate medical advice.
Advice to Doctor	Treat symptomatically based on judgement of doctor and individual reactions of patient. Can cause corneal burns. Delayed pulmonary oedema may result. Liver and kidney damage are possible complications. TREATMENT: Treat ingestion with gastric lavage using 40% aqueous Bacto-Peptide, milk or water until phenolic odour is eliminated. Then give 15 - 50 cc castor oil or vegetable oil. Debride necrotic skin. Monitor vital signs, fluid status, electrolytes, BUN, renal and hepatic function, and electrocardiogram. Manage sedation, seizures, renal failure, and fluid electrolyte imbalances symptomatically as indicated.
Medical Conditions Aggravated by Exposure	Long Term Effects: Available evidence from animal studies indicate that repeated or prolonged exposure to this material could result in effects on the central nervous system, kidneys, liver, pancreas, and spleen. Chronic Toxicity or Delayed Toxicity: Tumorigen, Mutagen, and Reproductive effector.

5. FIRE FIGHTING MEASURES

General Measures	Clear fire area of all non-emergency personnel. Stay upwind. Keep out of low areas. Eliminate ignition sources. Move fire exposed containers from fire area if it can be done without risk.
Flammability Conditions	Product is a combustible Liquid.
Extinguishing Media	Alcohol resistant foam is the preferred firefighting medium but, if it is not available, normal protein foam can be used. Keep containers cool with water spray.
Fire and Explosion Hazard	Product is a combustible Liquid. Avoid all ignition sources. All potential sources of ignition (open flames, pilot lights, furnaces, spark producing switches and electrical equipment etc) must be eliminated both in and near the work area. Do NOT smoke.
Hazardous Products of Combustion	On burning will emit toxic fumes, including those of oxides of carbon
Special Fire Fighting Instructions	Do NOT allow fire fighting water to reach waterways, drains or sewers. Store fire fighting water for treatment.
Personal Protective Equipment	Fire fighters should wear a positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots and gloves) or chemical splash suit.
Flash Point	81°C
Lower Explosion Limit	1.7 %
Upper Explosion Limit	8.6 %
Auto Ignition Temperature	No Data Available
Hazchem Code	X

6. ACCIDENTAL RELEASE MEASURES

General Response Procedure	Avoid accidents, clean up immediately. Increase ventilation. Work up wind or increase ventilation. Avoid walking through spilled product as it is slippery when spilt. Use clean, non-sparking tools and equipment. Shut off all possible sources of ignition.
Clean Up Procedures	Contain and sweep/shovel up spills with dust binding material or use an industrial vacuum cleaner. Transfer to suitable, labelled, corrosion-resistant containers and dispose of promptly as hazardous waste. Use water spray to disperse the gas/vapour.

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Containment	Stop leak if safe to do so. Isolate the danger area.
Environmental Precautionary Measures	Do NOT let product reach drains or waterways. If product does enter a waterway, advise the Environmental Protection Authority or your local Waste Management.
Evacuation Criteria	Evacuate all unnecessary personnel.
Personal Precautionary Measures	Personnel involved in the clean up should wear full protective clothing as listed in section 8.

7. HANDLING AND STORAGE

Handling	Wash thoroughly after handling. Do not get in eyes, on skin, or on clothing. Empty containers retain product residue, (liquid and/or vapour), and can be dangerous. Do not ingest or inhale. Use only in a chemical fume hood. Wash clothing before reuse. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements. This material is a Scheduled Poison S6 and must be stored, maintained and used in accordance with the relevant regulations. Avoid all contact. Use away from sources of heat and ignition. Keep out of reach of children.
Storage	Store in a cool, dry, well-ventilated area. Keep containers tightly closed when not in use. Inspect regularly for deficiencies such as damage or leaks. Protect against physical damage. Store away from incompatible materials as listed in section 10. Protect from direct sunlight. Store away from foodstuffs. Store away from sources of heat or ignition. Protect from light. Store away from foodstuffs. Keep from contact with oxidizing materials. This product has a UN classification of 2312 and a Dangerous Goods Class 6.1 (Toxic) according to The Australian Code for the Transport of Dangerous Goods by Road and Rail.
Container	Container type/packaging must comply with all applicable local legislation. Store in original packaging as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

General	The following exposure standard has been established by The Australian Safety and Compensation Council (ASCC); Phenol CAS 108-95-2: TWA = 1ppm (4mg/m ³) Sk Notice NOTE: The exposure value at the TWA is the average airborne concentration of a particular substance when calculated over a normal 8 hour working day for a 5 day working week. Sk Notice: Absorption through the skin may be a significant source of exposure These exposure standards are guides to be used in the control of occupational health hazards. All atmospheric contamination should be kept to as low a level as is workable. These exposure standards should not be used as fine dividing lines between safe and dangerous concentrations of chemicals. They are not a measure of relative toxicity.
Exposure Limits	No Data Available
Biological Limits	No information available on biological limit values for this product.
Engineering Measures	A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Use with local exhaust ventilation or while wearing air supplied hood. Adequate ventilation should be provided so that exposure limits are not exceeded.
Personal Protection Equipment	RESPIRATOR: Wear a full-body chemical resistant suit (eg. Microchem 3000) with air-hood or alternatively a full face piece respirator with organic vapour cartridge and dust/mist filter may be worn up to 50 times the exposure limit or the maximum use concentration (AS1715/1716). EYES: Protective eyeglasses or chemical safety goggles (AS1336/1337). HANDS: Wear elbow length impervious protective Butyl rubber gloves (AS2161). CLOTHING: Long-sleeved protective clothing, splash apron and long rubber boots (AS3765/2210).
Work Hygienic Practices	Wash hand before eating and drinking.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Appearance	Liquid
Odour	Sharp, Medicinal, Sweet, Tarry, Acrid
Colour	Colourless

pH	6 Aqueous Solution
Vapour Pressure	0.2 hpa
Relative Vapour Density	3.24
Boiling Point	181.8°C
Melting Point	40.8°C
Freezing Point	No Data Available
Solubility	1g/15mL of Water
Specific Gravity	1.06
Flash Point	81°C
Auto Ignition Temp	No Data Available
Evaporation Rate	<0.01
Bulk Density	No Data Available
Corrosion Rate	No Data Available
Decomposition Temperature	No Data Available
Density	No Data Available
Specific Heat	No Data Available
Molecular Weight	No Data Available
Net Propellant Weight	No Data Available
Octanol Water Coefficient	1.50
Particle Size	No Data Available
Partition Coefficient	No Data Available
Saturated Vapour Concentration	No Data Available
Vapour Temperature	No Data Available
Viscosity	No Data Available
Volatile Percent	No Data Available
VOC Volume	No Data Available
Additional Characteristics	Solubility: Very soluble in alcohol.
Potential for Dust Explosion	No Data Available
Fast or Intensely Burning Characteristics	No Data Available
Flame Propagation or Burning Rate of Solid Materials	No Data Available
Non-Flammables That Could Contribute Unusual Hazards to a Fire	No Data Available
Properties That May Initiate or Contribute to Fire Intensity	No Data Available
Reactions That Release Gases or Vapours	No Data Available
Release of Invisible Flammable Vapours and Gases	No Data Available

10. STABILITY AND REACTIVITY

General Information	<p>Possible Hazardous Reactions Occurring under Specific Conditions:</p> <ol style="list-style-type: none"> 1 . Strong oxidant (Especially chloric acid calcium once) : May cause the fire and explode. 2 . The liquid will corrode some plastics, rubber and coating; The hot liquid will corrode such metal as the aluminium, magnesium, lead, zinc, etc 3 . Chlorine aluminium, nitre base benzene. 4 . Keep in touch and may be got with the sour salt of different hydrogen violently together.
Chemical Stability	Product is stable under normal conditions of use, storage and temperature.
Conditions to Avoid	Keep away from sources of ignition, heat, high temperature, and open flame.
Materials to Avoid	Incompatible with strong oxidising agents, strong acids, chloroform, alkali hydroxides.

Hazardous Decomposition Products	On burning will emit toxic fumes, including those of oxides of carbon.
Hazardous Polymerisation	No Data Available

11. TOXICOLOGICAL INFORMATION

General Information	<p>Oral LD50 Rat: 317 mg/Kg Inhalation LC50 Rat: 316 mg/m³ (Duration not specified) Dermal LD50 Rabbit: 630 mg/Kg Chronic or Delayed Toxicity: Tumorigen, Mutagen, Reproductive Effector. Long Term Effects: Available evidence from animal studies indicate that repeated or prolonged exposure to this material could result in effects on the central nervous system, kidneys, liver, pancreas, and spleen.</p>
Eyelrritant	A severe eye irritant. Corrosive to eyes; contact can cause corneal burns. Contamination of eyes can result in permanent injury.
Ingestion	Swallowing can result in nausea, vomiting, diarrhoea, abdominal pain and chemical burns to the gastrointestinal tract. Collapse and possible death may occur.
Inhalation	Vapour and processing fumes may cause irritation to mucous membranes of the respiratory tract, headache and nausea.
SkinIrritant	Contact with skin will result in severe irritation. Corrosive to skin - may cause skin burns. Can be absorbed through the skin with resultant adverse effects.
Carcinogen Category	No Data Available

12. ECOLOGICAL INFORMATION

Ecotoxicity	<p>Fish LC50/96hr: 0.001-56mg/L Fish LC50/48hr: 46 mg/L (goldfish) Aquatic Invertebrate EC50/48hr: 56mg/L (Water Flea)</p>
Persistence/Degradability	<p>1. There are oxygen active mud reactors and can usually be moved except that more than 90% of the phenol, takes about 8 hours. 2. As release to water, move while being main except that the way is the biological decomposition. Half-life (Air): 2.28 - 22.8 hrs Half-life (Water Surface): 5.3 - 56.5 hrs Half-life (Groundwater): 12 - 168 hrs Half-life (Soil): 24 - 240 hrs</p>
Mobility	Is it release to soil to act as, will fast living beings resolve(about 2-5day), and the decomposition will take place in the deep soil.
Environmental Fate	Do NOT let product reach waterways, drains and sewers.
Bioaccumulation Potential	BCF: 1.9 - 277
Environmental Impact	No Data Available

13. DISPOSAL CONSIDERATIONS

General Information	Dispose of in accordance with all local regulations. All empty packaging should be disposed of in accordance with Local, State Regulations or recycled/reconditioned at an approved facility.
Special Precautions for Land Fill	Contact a specialist disposal company or the local waste regulator for advice. Normally suitable for incineration by an approved agent.

14. TRANSPORT INFORMATION

Proper Shipping Name	PHENOL, MOLTEN
Class	6.1 Toxic and Infectious Substances - Toxic Substances
Subsidiary Risk(s)	No Data Available
ERG	153 Substances - Toxic and/or Corrosive (Combustible)
UN Number	1671
Hazchem	3X

Pack Group	II
Special Provision	No Data Available

**Sea Transport
IMDG**

Proper Shipping Name	PHENOL, MOLTEN
Class	6.1 Toxic and Infectious Substances - Toxic Substances
Subsidiary Risk(s)	No Data Available
UN Number	1671
Hazchem	3X
Pack Group	II
Special Provision	No Data Available
EMS	FA,SA
Marine Pollutant	No
Land Transport	

**Air Transport
IATA**

Proper Shipping Name	PHENOL, MOLTEN
Class	6.1 Toxic and Infectious Substances - Toxic Substances
Subsidiary Risk(s)	No Data Available
UN Number	2312
Hazchem	3X
Pack Group	II
Special Provision	No Data Available

15. OTHER INFORMATION

Revision	1
Key/Legend	<p>< Less Than > Greater Than atm Atmosphere CAS Chemical Abstracts Service (Registry Number) cm Square Centimetres CO2 Carbon Dioxide COD Chemical Oxygen Demand Degrees Celcius Degrees Farenheit g Grams g/cm Grams per Cubic Centimetre g/l Grams per Litre HSNO Hazardous Substance and New Organism IDLH Immediately Dangerous to Life and Health immiscible Liquids are insoluable in each other. inHg Inch of Mercury inH2O Inch of Water K Kelvin kg Kilogram kg/m Kilograms per Cubic Metre lb Pound LC50 LC stands for lethal concentration. LC50 is the concentration of a material in air which causes the death of 50% (one half) of a group of test animals. The material is inhaled over a set period of time, usually 1 or 4 hours. LD50 LD stands for Lethal Dose. LD50 is the amount of a material, given all at once, which causes the death of 50% (one half) of a group of test animals. ltr or L Litre m Cubic Metre mbar Millibar mg Milligram mg/24H Milligrams per 24 Hours mg/kg Milligrams per Kilogram mg/m Milligrams per Cubic Metre Misc or Miscible Liquids form one homogeneous liquid phase regardless of the amount of either component present. mm Millimetre mmH2O Millimetres of Water mPa.s Millipascals per Second N/A Not Applicable NIOSH National Institute for Occupational Safety and Health NOHSC National Occupational Heath and Safety Commission</p>

OECD Organisation for Economic Co-operation and Development
Oz Ounce
PEL Permissible Exposure Limit
Pa Pascal
ppb Parts per Billion
ppm Parts per Million
ppm/2h Parts per Million per 2 Hours
ppm/6h Parts per Million per 6 Hours
psi Pounds per Square Inch
R Rankine
RCP Reciprocal Calculation Procedure
STEL Short Term Exposure Limit
TLV Threshold Limit Value
tne Tonne
TWA Time Weighted Average
ug/24H Micrograms per 24 Hours
UN United Nations
wt Weight