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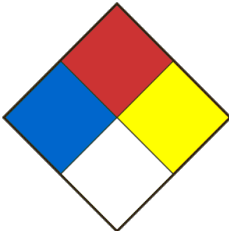
SAFETY DATA SHEET

SECTION 01 - PRODUCT AND COMPANY IDENTIFICATION

Product Identifier PHENOL		Product Use Laboratory use	
Chemical formula C ₆ H ₅ OH		Product code PR-0123	Molar weight 94,11
Chemical name / Commercial name / Synonymous PHENOL, ACIDE CARBOLIQUE, ACIDE PHÉNYLIQUE, ALCOOL PHÉNYLIQUE, ALCOOL DE PHÉNYLE, ACIDE PHÉNIQUE, HYDRATE DE PHÉNYLE, HYDROXYDE DE PHÉNYLE, HYDROXYBENZÈNE, OXYBENZÈNE			
Supplier's name Laboratoire MAT		Address-Street 610, Adanac Street	
City Québec		Province Québec	
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Emergency phone	CANUTEC: 613-996-6666 CENTRE ANTI-POISON DU QUÉBEC 800-463-5060		
Date SDS 3/3/2023	SDS Prepared by Laboratoire MAT	E-Mail labmat@labmat.com	

SECTION 02 - HAZARDS IDENTIFICATION

Classification WHIMS / GHS	Acute toxicity - Inhalation category 3 Acute toxicity - Dermal category 3 Skin corrosion/irritation - Skin corrosion category 1B Serious eye damage/eye irritation - Serious eye damage category 1 Germ cell mutagenicity category 2 Specific Target Organ Toxicity - Repeated exposure category 2 Acute toxicity - Oral category 3 Specific Target Organ Toxicity - Single exposure category 2
Signal Word	DANGER
Hazards statements (H)	H311 Toxic in contact with skin. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage. H331 Toxic if inhaled. H341 Suspected of causing genetic defects . H373 May cause damage to organs through prolonged or repeated exposure. H301 Toxic if swallowed. H371 May cause damage to organs.
Precautionary statements (P)	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. P261 Avoid breathing dust / fume / gas / mist / vapors / spray. P264 Wash the areas of the body that have been in contact with the product after handling. P270 Do no eat, drink or smoke when using this product. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/eye protection/face protection. P301 + P330 + P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting. P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position 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. P310 Immediately call a POISON CENTER or doctor/physician. P311 Call a POISON CENTER or doctor/physician. P312 Call a POISON CENTER or doctor/physician if you feel unwell. P314 Get medical advice/attention if you feel unwell. P321 Specific treatment (see section 4 of the SDS and on this label). P330 Rinse mouth. P363 Wash contaminated clothing before reuse. P403 + P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up. P501 Dispose of contents/container in accordance with local / regional / national / international regulations or contact a specialist waste disposal company. P361 + P364 Take off immediately all contaminated clothing and wash it before reuse. P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. P308 + P311 IF exposed or concerned: Call a POISON CENTER or a doctor.
PICTOGRAMS	
Other dangers	NFPA (Risk: 0=No risk; 1=Slight; 2=Moderate; 3=Significant; 4=Extreme)

	Health 3 Fire 1 Reactivity 0 Special danger
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SECTION 03 - COMPOSITION/INFORMATION ON INGREDIENTS

Ingrédients (Dénomination chimique / synonymes)	Numéro CAS et tout identificateur unique	Concentration (%)
Phénol	108-95-2	<=100

SECTION 04 - FIRST AID MEASURES

Eye contact	Wash eyes with large amounts of water for at least 15 minutes while holding eyelids apart to rinse eyes. If irritation persists, seek medical attention.
Skin contact	Wash skin with plenty of water for at least 15 minutes. Remove soiled clothing. If irritation persists, seek medical attention.
Inhalation	If breathed in, move person into fresh air. If breathing is difficult, give oxygen. Do not use the mouth-to-mouth method if the victim has ingested or inhaled the substance, apply artificial respiration with a pocket mask equipped with a one-way valve or other suitable medical device. Consult a physician.
Ingestion	If the person is conscious, give water to drink. Never give anything by mouth to an unconscious person. Consult a physician.
Most important symptoms and effects (acute and delayed)	Main symptoms of high exposure: Causes burns, regardless of exposure routes. Breathing difficulties. Cyanosis (blue to black coloring of the skin and nails). Necrosis. Effects may be delayed. Ref. section 11.
Immediate medical attention and special treatment, if necessary	In case of medical consultation, keep this sheet available.
General advice	Show this safety data sheet to the doctor in attendance.

SECTION 05 - FIREFIGHTING MEASURES

Flammability	No
Ignition conditions	It is not considered flammable, but can burn at high temperatures. Flame directly on the product or intense heat.
Suitable extinguishing media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media	Data not available.
Hazardous combustion products	Hazardous combustion products formed under fire conditions: Carbon oxides.
Special fire and explosion hazards	Solid fuel. Moderate fire hazard in the presence of heat or flame. Containers exposed to fire may explode. Contact with strong oxidizing agents may cause fire. Phenol reacts violently with the following products: alkalis, acetaldehyde, aluminum chloride + nitrobenzene, boron trifluoride, 1,3-butadiene, calcium hypochlorite, strong oxidants, diethyl etherate, formaldehyde, peroxodisulfuric acid, peroxomonosulfuric acid, sodium nitrite, sodium nitrate + trifluoroacetic acid. May react violently with incompatible products (Ref Section 10).
Special protective equipment and precautions for firefighters	Discard incompatible substances if this can be done without risk. Firefighters should be equipped with standard protective equipment, fireproof clothing, face mask, gloves, protective boots and, where appropriate, self-contained breathing apparatus.

SECTION 07 - HANDLING AND STORAGE

Conditions for safe storage	Store in a cool, dry place. Preferably refrigerate. Keep container tightly closed and store away from heat, air, moisture and incompatible products. Protect from sunlight and light. Store in a well-ventilated area.
Methods of handling	Ensure good ventilation. Avoid contact with the skin, eyes and clothes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust or vapor is formed. Avoid ingestion and inhalation. Wear personal protective equipment when handling. Always ensure good ventilation. Transport according to TDG (ref Section 14)

SECTION 08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Workplace control parameters

Components	CAS-No.	Value	Control parameters	Basis
Phenol	108-95-2	TWA	5.000000 ppm 19.000000 mg/m3	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)
Remarks	Substance may be readily absorbed through intact skin			
		TWA	5.000000 ppm	Canada. British Columbia OEL
	Contributes significantly to the overall exposure by the skin route.			
		TWAEV	5.000000 ppm 19.000000 mg/m3	Québec. Regulation respecting occupational health and safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants
	Skin (percutaneous)			
		TWA	5.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)

Data source	Sigma-Aldrich (Millipore Sigma)
Ventilation	Use fan.
Respiratory	If work under the hood is not possible, or if the permissible levels are exceeded, use a mechanical filter / cartridge against NIOSH vapors or a respirator with air supply.
Gloves	Handle with gloves.
Eyes	Safety goggles with safety shutters. Face shield (20 cm minimum).
Shoes	Safety shoes.
Clothing	Labcoat. Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Engineering control	Have safety showers and eyewash stations in the workplace in case of an emergency and a ventilation system to maintain the level of concentrations in the air below the exposure limit values.

SECTION 09 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state	Solid.
Appearance	Cristaux de couleur blanche .-
Odour	Piquante.
Odour threshold	0.1ppm
pH	Solution à 5% = pH 4.5 - 6.0.
Melting point / Freezing point	39-42°C
Initial boiling point	182°C
Boiling range	Data not available
Flash point	79°C
Evaporation rate	100 %-
Flammability	No
Lower flammable / Explosive limit	1.7% v/v
Upper flammable / Explosive limit	8.6% v/v
Vapour pressure	20 - 100 Pa @ 20 - 36.1 °C-
Vapour density	Data not available
Relative density	1.070g/cm ³
Solubility	Soluble dans l'eau (69 - 97.8 g/L @ 2.6 - 40 °C) . Très soluble dans l'alcool, le chloroforme, l'éther et la glycérine.
Partition coefficient water/n-octanol	Data not available
Auto-ignition temperature	605-715°C
Decomposition temperature	Data not available
Viscosity	1.784 - 3.437mpas

SECTION 10 - STABILITY AND REACTIVITY

Reactivity	May react violently with incompatible substances.
Chemical stability	Sensitive to light. Air sensitive.
Possibility of hazardous reactions	May react violently with incompatible substances.
Conditions of instability (Including sensitivity to shock / static discharge / vibration)	This product may turn pink if exposed to air or light.
Incompatible material	Strong oxidizing agents (nitric acid, perchloric acid, peroxides, chlorates and perchlorates), strong acids and bases, strong oxidants, alkalis, acetaldehyde, 1,3-butadiene, boron trifluoride , camphor, diethyletherate, calcium hypochlorite, formaldehyde, metals and their alloys, sodium nitrite, heat, air, moisture and light.
Hazardous decomposition products	Hazardous decomposition products formed under fire conditions. Toxic vapors of carbon monoxide and dioxide.

SECTION 11 - TOXICOLOGICAL INFORMATION

PHENOL

Routes of exposure	Ingestion, inhalation, skin and eyes.
Acute exposition effects / symptoms:	By exposure route below.
- Eyes	Irritation and severe burns that can lead to corneal ulceration and blindness.
- Skin	Severe irritation, burns and tissue ulcerations.
- Inhalation	Spasms, irritation and inflammation of the nose, throat and lungs. Edema of the larynx and bronchi. Chemical pneumonitis and pulmonary edema that can lead to death.
Acute toxicity (Ingestion)	Irritation and burning of the mouth, throat, esophagus and abdominal wall. Dysphagia, abdominal pain, cramps, diarrhea, melena, hematemesis, sweating, salivation, paleness, convulsions, cardiac arrhythmia, stupor, hypotension, unconsciousness, coma and can lead to death. Ingestion of 1.5 g is sufficient to cause death.
Chronic exposure effects / symptoms	Burning sensation, dermatitis, vitiligo, nervous disorders, liver and kidney damage, chest pain, cough, dyspnoea, laryngitis, headache, diarrhea, dizziness, confusion, irritability, erythema, difficulty swallowing, sweating, salivation muscle weakness and pain, weight loss and loss of appetite, nausea and vomiting.
DL50 (specify species and route of entry)	LD50 Oral - Rat - 340-650 mg/kg LD50 Dermal - Rabbit - 850-1400 mg/kg LD50 Dermal - Rat - 660 mg/kg
CL50 (specify species and route of entry)	LC50 Inhalation - Rat - 8 h - 900 mg/m3.

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity	Toxicity to fish: LC50 - <i>Leuciscus idus</i> (Golden orfe) - 14.00 - 25.00 mg/l - 48 h CL50 - <i>Carassius auratus</i> (Gold fish) - 36.10 - 68.80 mg/l - 96 h Toxicity to daphnia and other aquatic invertebrates: EC50 - <i>Daphnia magna</i> (Water flea) - 56 mg/l - 48 h Toxicity to algae: EC50 - <i>Chlorella vulgaris</i> (Fresh water algae) - 370.00 mg/l - 96 h
Persistence and degradability	Biodegradability Result: - Readily biodegradable
Bioaccumulative potential	Bioaccumulation <i>Danio rerio</i> (zebra fish) - 5 h. Bioconcentration factor (BCF): 17. Remarks: Does not bioaccumulate.
Mobility in soil	Probable mobility due to its solubility in water.
Other adverse effects	Toxic to aquatic life. Causes long-term adverse effects. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

SECTION 13 - DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose of contents / container in accordance with local / regional / national / international regulations / or contact a specialist waste disposal company.
Contaminated Packaging	Dispose of as unused product.

SECTION 14 - TRANSPORT INFORMATION

UN Number	1671
UN Proper shipping name	PHÉNOL SOLIDE
Transport hazard class(es)	6.1 Toxic substances
Packing group	II
Limited quantity index	0,5kg
ERAP Index	1000
Special precautions	43

SECTION 15 - REGULATORY INFORMATION

WHIMS CANADA	Acute toxicity - Inhalation category 3 Acute toxicity - Dermal category 3 Skin corrosion/irritation - Skin corrosion category 1B Serious eye damage/eye irritation - Serious eye damage category 1 Germ cell mutagenicity category 2 Specific Target Organ Toxicity - Repeated exposure category 2 Acute toxicity - Oral category 3 Specific Target Organ Toxicity - Single exposure category 2
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SECTION 16 - OTHER INFORMATION

Further information

The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. It does not represent any guarantee of the properties of the product. Laboratoire MAT Inc. shall not be held liable for any damage resulting from handling or from contact with the above product.

Last Update: 3/3/2023