MATERIAL SAFETY DATA SHEET • MSDS

SECTION 1 • *PRODUCT IDENTIFICATION*

TRADE NAME	**PHENOLIC POWDER**
ANAMET PRODUCT NUMBER	**199-X**
CHEMICAL NAME	
MANUFACTURER / SUPPLIER'S NAME	ANAMET
ADDRESS	P.O. Box 538 BOUCHERVILLE, QUÉBEC, J4B 6Y2
TELEPHONE NO.	(450) 646-1290
EMERGENCY TELEPHONE NO.	**CANUTEC (613)-996-6666**

SECTION II • *COMPOSITION / INFORMATION ON COMPONENTS*

Chemical characterization Description	**CAS number**	**%**	**OSHA PEL (mg/m^3)**	**ACGIH TLV (mg/m^3)**
Phenol.	108-95-2	< ,6.3	5	5
Formaldehyde.	50-00-0	<0.6	0.75	0.3
Carbon black.	1333-86-4	< 12	3.5	3.5
Coal dust.		< 18	2.4	2
Talc.	14807-96-6	< 20	20	2
Graphite.	7782-42-5	<40	15	2
Particulates not otherwise classified (PNOC).		< 70	5	3
Mica	12001-26-2	< 60	20	3

NOTE: Ingredients are listed on the TSCA Inventory of Chemical Substances. Those not identified are non-hazardous.

Unless specifically indicated otherwise, the following information applies to the compound in the form sold, not to articles, parts, etc. molded of the compound; in normal molding, the material substantially completes its progression to a cross-linked insoluble, infusible solid.

SECTION III • *PHYSICAL / CHEMICAL CHARACTERISTICS*

Boiling point in ºC	Not available	**Vapor pressure (mm Hg)**	Not available.
Melting point in ºC	Not available	**Vapor density (Air = 1)**	Not available.
Density (Water = 1)	1.83.	**Evaporation rate (Butyl acetate= 1)**	Not available.
Solubility in water	Negligible		
Appearance & odor	Solid powder with slight odor of phenol.		

SECTION IV • *FIRE / EXPLOSION HAZARD*

Flash point (Test Method)	Non flammable
Flammable Limits	**LOWER** 0.03oz./pcf **UPPER** Not determined.
Extinguishing medium	Water fog, foam, dry chemical, carbon dioxide.
Special fire fighting procedures	MSHA/NIOSH approved self-contained breathing apparatus recommended. Avoid inhalation of gases.
Unusual fire and explosion hazards	Organic dust/air mixtures are highly flammable (explosive); avoid dust accumulations or dust-laden atmospheres and sources of ignition.

SECTION V • *REACTIVITY*

Stability	Stable. Avoid contamination, exposure to flame or heat, or storage at temperatures in excess of 100^0F.
Incompatibility	Like most organic materials, this product is sensitive to strong oxidizing agents and may either decompose or ignite when mixed with same.
Hazardous Decomposition Products	Vapors evolved during polymerization may contain phenol, formaldehyde, or ammonia.
Hazardous polymerization	Should not occur.

SECTION VI • *TOXICOLOGICAL PROPERTIES OF PRODUCT*

A - SUGGESTED FIRST AID

Eyes	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention.
Skin	Wash thoroughly with soap and water.
Inhalation	Use with adequate ventilation. If breathing is affected, remove to fresh air. If breathing stops, apply mouth to mouth resuscitation. Get medical attention
Ingestion	If conscious, give water immediately. Do not induce vomiting. Never give anything by mouth to an unconscious person. Get medical attention.
Health hazard data	However, "as sold" the plastic resin is not completely "cured" or reacted and contains some non-reacted ingredients dissolved within it. So dissolved, these chemicals are extremely unlikely to pose a hazard; but because they are hazardous in their pure forma, OSHA requires that they be reported and described as hazardous ingredients (see below and Section VI-B). Under normal conditions of storage and handling, no significant amounts of hazardous vapors should evolve from the "as sold" product. Because phenol is more soluble in the resin than in water, there is no liquefying significant health hazard

	through skin absorption. The great majority of filling materials are imbedded within compound granules that are large enough not to constitute an inhalation hazard. Nevertheless, some particles of plastic resin and/or filling materials may be present in a size that constitutes a Respirable dust (including, in some products, up to 1% inorganic filling material mixed in after compounding). This Respirable dust may contain one or more of the following materials: carbon black, coal dust, fibrous glass, graphite, mica, mineral wool fiber, talc, and/or wood floor (soft). Chronic inhalation of each of the above has been associated with fibrotic lung disease. For most of all, it has been associated with increased risk of lung cancer, especially among smokers. Inhalation of dust should be avoidable with proper material handling procedures and good ventilation, but if not, respirators should be worn. The primary acute health risk from exposure to the product "as sold" is irritation, especially from the dust. Ingestion, inhalation of dust, and contact with skin and eyes should be avoided. **As used:** During polymerization (e.g., curing of the product during normal processing) or decomposition (e.g., overheating or burning of the product) small amount of gaseous ammonia, phenol and formaldehyde (as well as water vapor, carbon monoxide and carbon dioxide) are evolved. Breathing of the fumes can be harmful. If the odor of ammonia or formaldehyde is noticeable, then the airborne concentration of those chemicals should be carefully monitored and ventilation improvements considered; those chemicals begin to be detectable by odor at concentrations approaching or exceeding the PELs. The odor of phenol begins to be noticeable at a concentration about one-fifth the PEL. In any case, adequacy of ventilation can best be determined by use of instruments to monitor airborne concentrations of ammonia, phenol, and formaldehyde. Grinding or machining of cured molded material may create a dust that poses a respiratory hazard if inhaled (see above) and may release small amounts of gaseous ammonia.

B – TOXICOLOGICAL INFORMATION

PRIMARY ENTRY ROUTES: Skin contact, inhalation and eye contact.

• LONG TERM EXPOSURE

Ordinary use of this product is unlikely to produce significant exposure to hazardous chemicals. PELs for these chemicals are set at levels designed to avoid any significant health risk and are achievable with proper material handling procedures, ventilation and housekeeping. Nevertheless, per OSHA requirement, we list the following possible health hazards if one were exposed to the following chemicals at levels much higher, or in a different form, than expected from ordinary use of this product.

• Phenol	Highly toxic. Poisoning may occur via skin absorption, vapor inhalation, or ingestion. Inhalation of the vapors may cause severe irritation to the nose, throat, and respiratory tract. May cause liver, kidney and heart damage.
• Formaldehyde	Irritant to eyes, lungs and skin. Has been shown to cause cancer in laboratory animals. Listed as an IARC carcinogen. California law requires the following statement be included: contains a chemical (formaldehyde) known to the state of California to cause cancer. National cancer institute study finds

	little evidence to connect formaldehyde exposure with cancer in humans. May cause respiratory sensitization.
• Ammonia	Irritant to eyes, mucous membranes and respiratory tract. Possible Respirable dust components (up to 8% may go through 100 meshes).
• Carbon black	Irritant to eyes and respiratory tracts. Exposures at high levels are associated with declines in pulmonary function and cardio vascular stress.
• Coal dust	Irritant to eyes, nose and throat. May cause respiratory effects such as pneumoconiosis, bronchitis, emphysema and progressive massive fibrosis, with long exposure.
• Mineral wool fiber	Irritant to eyes and skin. Several studies have shown excess risk of non malignant respiratory disease.
• Talc	Irritant to eyes, mucous membranes and respiratory tracts. Medical evidence is complicated by the fact that talc contains amphiboles and other minerals.
• Wood flour (soft)	Irritant to eyes, mucous membranes and upper respiratory tracts. Various species of wood dust can elicit allergic contact dermatitis in sensitized individuals. May cause respiratory sensitization.
Carcinogenicity	Phenol and formaldehyde may cause cancer.
Teratogenicity, Mutagenicity and other reproductive effects	No Information
Skin Sensitization	May be irritating to the skin.
Respiratory tract sensitization	May be irritating to the respiratory tract.
Synergistic materials	No information.

SECTION VII • *PRECAUTIONARY INFORMATION*

PERSONAL PROTECTIVE MEASURES

Eye , face & hands	Recommend standard face and eye protection at all times while using the product. Gloves are recommended.
Respiratory protection	As needed, use approved dust respirator (OSHA CFR1910.134).
Ventilation	Point source exhaust recommended removing dust and vapors evolved during use (dust collection system). Use explosion proof motors.
Hearing	As needed in accordance with OSHA 1910-215.
HMIS Ratings	Health: 2 Flammability: 1 Reactivity: 0

SECTION VIII • *SAFETY PRECAUTIONS IN CASE OF LEAKS OR SPILLS*

Spill or leak procedure	Vacuum or sweep with sweeping compound, sawdust or sand. Avoid generating dust. Vacuums with explosion proof motors are recommended. This product contains free phenol which is subject to effluent limits under the clean water act.
Waste disposal	Disposal should be in accordance with local, state, or national legislation. Incinerate under approved controlled conditions.

SECTION IX • *STORAGE AND HANDLING*

Storage	Store in a cool, dry place. Keep containers closed to avoid Contamination. Prevent accumulations of dust. Avoid excessive heat and sources of ignition. Observe good housekeeping practices.
Handling	Prevent accumulations of dust. Avoid excessive heat and sources of ignition.
Shipping Classification **DOT Hazard class**	• **Dot Shipping Name:** Not regulated for transport. • **TDG/UN Shipping Names:** None • **UN Number:** None • **Hazard Class:** None • **Packing Group:** None • **TDG Exemption:** None • **Label:** None • **IATA Class:** None • **IMDG Class:** None
HMIS Ratings	Health: 2 Flammability: 1 Reactivity: 0

SECTION X • ECOLOGICAL INFORMATION

Environmental Fate and Distribution	Not relevant.
Persistence and Degradation	Not relevant.
Toxicity	Not relevant.
Effect of effluent treatment	Not relevant.

SECTION XI • *REGULATORY INFORMATION*

• **EC REGULATIONS:**

TSCA STATUS: None
SARA TITLE III

- Section 302: None.
- Section 311/312: None.
- Section 313: None.
- RCRA STATUS: None.

• CANADIAN REGULATIONS:

WHMIS Classification: D2A

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TERMINOLOGY

ACGIH: American Conference of Governmental Industrial Hygienists

CAS: Chemical Abstract Service

CFR: Code of Federal Regulations (Transportation in U.S.A.)

DOT: Department of Transportation (USA)

DSL: Domestic Substance List

IARC: International Agency for Research and Cancer

LC: Lethal Concentration

LD: Lethal Dosage

MSHA: Mine Safety and Health Administration (USA)

NIOSH: National Institute for Occupational Safety and Health (USA)

NTP: National Toxicology Program (U.S.A.)

OSHA: Occupational Safety and Health Administration (USA)

PEL: Permissible exposure limit.

STEL: Short term exposure limit.

TDG: Transportation of Dangerous Goods

TLV: Threshold limits value.

TSCA: Toxic Substances Control Act

TWA: Time-weighted average

USEPA: United States Environmental Protection Agency

WHMIS: Workplace Hazardous Materials Information System