



MATERIAL SAFETY DATA SHEET

PRODUCT IDENTIFICATION

Product Name: PAC
Chemical Name: POLYANIONIC CELLULOSE (PAC)
Synonyms: PAC
CAS Number: 9004-32-4

Product Components:

<u>Name</u>	<u>Percentage</u>	<u>CAS No.</u>	<u>EINECS No.</u>
1. Purity of sodium carboxymethyl cellulose, on dry basis	85% min.	9004-32-4	
2. moisture content	8. 0% Max.	7732-18-5	231-791-2
3. sodium chloride	0 – 10%	7647-14-5	231-598-3

HEALTH HAZARDS

Recommended Exposure Limits:

Control as Particulate Not Otherwise Classified (PNOC) or Regulated:

	OSHA PEL	ACGIH TLV*
Respirable Fraction	5 mg/m ³	3 mg/m ³
Total Dust	15 mg/m ³	10 mg/m ³

* The value is for inhalable (total) particulate matter containing no asbestos.

Acute Effects of Overexposure:

Skin Contact:	May cause slight irritation with prolonged contact with moistened product.
Eye Contact:	Dust may cause mechanical irritation.
Inhalation:	Non-irritating to mucous membranes, however, breathing high concentration of the dust may cause mechanical irritation of the nose, throat, and upper respiratory tract.
Ingestion:	Passes through relatively inert. May cause some gastrointestinal upset. Oral LD ₅₀ > 25 g/kg (rats)

Subchronic and Chronic Effect of Overexposure:

No adverse effects have been noted in chronic feeding studies using laboratory animals and humans.

Other Health Effects:

Long term exposure to high dust concentrations may cause non-debilitating lung changes.

Health Hazard Categories:

	<u>Animal</u>	<u>Human</u>	<u>Animal</u>	<u>Human</u>
Known carcinogen	-	-	Toxic	-
Suspect carcinogen	-	-	Corrosive	-
Mutagen	-	-	Irritant	-
Teratogen	-	-	Target Organ Toxin	-



	<u>Animal</u>	<u>Human</u>	<u>Animal</u>	<u>Human</u>
Allergic Sensitizer	-	-	Specify – No known applicable information	
Highly Toxic	-	-		

Canadian WHMIS:

Specify: Does not meet criteria for any of the above categories.

FIRST AID MEASURES

Skin Contact:	Wash with plenty of water and soap while removing contaminated clothing and shoes. Wash clothing before reuse. If irritation develops or persists, get medical attention.
Eye Contact:	In case of contact, immediately flush with plenty of water for at least 15 Minutes, occasionally lifting the upper and lower eyelids. If irritation persists, consult medical personnel.
Ingestion:	Do not induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupful of milk or water. Wash mouth out with water. Get medical aid if irritation or symptoms occur.
Inhalation:	Move to fresh air immediately. If cough or other symptoms appear, get medical attention.

PHYSICAL AND CHEMICAL DATA

Appearance and Odor:	Free-flowing white to light yellow powder; odorless
Bulk Density:	300 – 900 kg/m ³
Melting Point (°C):	Not applicable
Boiling Point (°C):	Not applicable
Solubility in Water:	Soluble
pH (1% solution):	6.0 ~ 8.5
NFPA Rating:	Health 1; Flammability 0; Reactivity 0
Vapor Density (Air = 1):	Not applicable
Vapor Pressure (mm Hg):	Not applicable

FIRE FIGHTING MEASURES

Flash Point:	Not applicable
Flammable Limits:	Not applicable
Extinguishing Media:	Water spray, foam, or Halogen
Special Fire Fighting Procedures :	In case of insufficient ventilation firefighters should wear self-contained breathing apparatus and full protective gear. Material becomes slippery when contacted with water. During fire, irritating and toxic gases may be generated by thermal decomposition or combustion.

Unusual Fire and



Explosion Hazards:

Dust/air mixtures may ignite violently upon exposure to sparks or sources of ignition.

STABILITY AND REACTIVITY DATA

Incompatibility:

Moisture

Conditions to Avoid:

Incompatible materials, dust generation, excess heat, exposure to moist or water

Decomposition Products:

carbon dioxide, carbon monoxide, irritating and toxic fumes and gases

Hazardous Polymerization:

Will not occur

Chemical Stability:

stable under normal temperature and pressure.

PREVENTIVE MEASURES

Ventilation:

Normal room ventilation is okay for limited use. Use adequate ventilation to keep airborne concentrations low.

Respirators:

A respiratory protection program that meets OSHA's 29 CFR 910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Protective Clothing:

Wear appropriate protective clothing and gloves to prevent skin exposure.

Eye Protection:

Wear appropriate protective eyeglasses or chemical safety goggles.

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Handling: Wash thoroughly after handling. Minimize dust generation and accumulation. Avoid contact with eyes, skin. Avoid ingestion and inhalation. Use with adequate ventilation.

Keep container tightly closed.

Storage: Store in a tightly closed container. Store in a cool, dry and well-ventilated place. Store protected from moisture. No special precautions indicated.

ACCIDENTAL RELEASE MEASURES

General information: Use proper personal protective equipment.

Spills/Leaks: Contain and clean spilled material by vacuum or broom sweeping and remove to suitable disposal container. Clean up spills immediately. Avoid generating dust conditions. Provide ventilation.

WASTE DISPOSAL METHOD

Must consult state and local hazardous waste regulations to ensure complete and accurate classification.

Dispose of in accordance with any local, state, and federal regulations. Prevent run-off to sewers.

RCRA P-Series: None listed

RCRA U-Series: None listed

TRANSPORTATION INFORMATION

US DOT: No information available



REGULATORY INFORMATION

Hazard definitions as defined by the Occupational safety and Health Hazard Communication Standard (CFR Section 1910.1200) are:

---- combustion liquid ---- flammable aerosol ---- oxidizer ---- compressed gas ---- explosive
---- pyrophoric ---- flammable gas ---- health hazard ---- unstable
---- flammable liquid ---- organic peroxide ---- water reactive ---- flammable solid

Based on information presently available, this product does not meet any of the hazard definitions of 29 CFR Section 1910.1200.

SARA 313

As of the preparation date, this product did not contain a chemical or chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

NFPA 704 Hazard Codes

Health: 0	Flammability: 0	Reactivity: 0	Special Hazard: -	
Signals: Least – 0	Slight – 1	Moderate – 2	High – 3	Extreme – 4