MATERIAL SAFETY DATA SHEET
LEEPOL™ 971P POLYMER

THE LEELA CORPORATION

Section 1 — Chemical Product and Company Identification

THE LEELA CORPORATION
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Ahmedabad – 380060
Gujarat, India

Product Trade Name	LEEPOL™ CARBOMER 971P POLYMER
Generic Chemical Name	Acrylic Polymer
Ingredients	Acrylic Polymer (>98%)
Synonyms	Carbomer 971P
CAS Number	9003-01-4
H.S. CODE	39069090
Product Type	Not applicable
Transportation Emergency	FOR TRANSPORT EMERGENCY call Mr. Ujas Patel Phone No. +91 9724216384
MSDS No.	MSDS/TLC/971P/21-22

Section 2 — Hazards Identification

Appearance	White powders
Odor	Slight acetic
Principal Hazards	Caution

Dusts may be harmful if inhaled

See Section 11 for complete health hazard information.

Section 3 — Composition / Information on ingredients

Chemical Name	CAS Number	Percent by Weight
Acrylic Acid	79-10-7	0.1-0.5%

Section 4 First Aid Measures

Eyes : Immediately flush eyes with plenty of one percent (1%) physiological saline solution for five (5) minutes while holding eyelids open. If no saline is available, flush with plenty of clean water for fifteen (15) minutes. See a physician. Water (Moisture) swells this product into a gelatinous film which may be difficult to remove from the eye using only water.

Skin : Wash with soap and water. Get medical attention if irritation develops. Launder contaminated clothing before reuse.

Inhalation : Remove exposed person to fresh air if adverse effects are observed. If Breathing is labored, administer oxygen. If breathing has stopped, apply artificial respiration. If irritation persists or if toxic symptoms are observed, get medical attention.

Oral : Treat symptomatically. Get medical attention.

Additional Information : Note to physician: Treat symptomatically

Section 5 Fire Fighting Measures

Flammability class : Not Applicable

Flash Point : Not Applicable

Extinguishing Media : CO_2, dry chemical, foam, water spray, water fog. Carbon dioxide may be ineffective on larger fires due to a lack of cooling capacity which may result in re-ignition. Avoid hose stream or any method which will create dust clouds.

Firefighting Procedure : Wear full protective fire-gear including self-containing breathing apparatus operated in the positive pressure mode with full face-piece, coat, pants, gloves and boots.

Unusual Fire & Explosion Hazards : Solid does not readily release flammable vapors. Material can form an explosive organic dust air mixture. See section 10 for additional information.

Fire and Explosive Properties

Min. Explosive Concentration	: 130 g/m³
Minimum ignition energy	: > 0.03 joules
Deflagration Index, Kst (estimate)	: 130 bar m/sec
Volume resistivity	: 3.24 x 10+15 ohm-cm
Maximum rate of pressure rise	: 380 bars @ 500 g/m³
Maximum explosion pressure	: 4.8 bars @ 500 g/m³
Explosion severity	: 2.02 (Severe)
Ignition temperature of dust cloud	: 520°C (968°F)

Section 6 Accidental Release Measures

Spill Procedures : Personal Protective Equipment must be worn. Take precautions to avoid release to the environment. Prevent entry into sewers and waterways. Dispose of in accordance with all federal, state and local environmental regulation. Avoid raising a dust. Wash spill area with detergent. Material is slippery when wet.

Section 7 Handling and Storage

Pumping Temperature : Not applicable

Maximum Handling Temperature : Not determined

Handling Procedures : Maintain good housekeeping practices. Do not discharge into drains or the environment; dispose to an authorized waste collection point. Use appropriate containment to avoid environmental contamination. Avoid drinking, tasting, swallowing or ingesting this product. Avoid inhalation of dust, aerosol, mist, spray, fume, or vapor. Use with appropriate and adequate ventilation. Avoid contact with eyes, skin and clothing. Ground and bond containers when transferring material. Avoid prolonged skin contact. Launder contaminated clothing before reuse. Dispose of packaging or containers in accordance with local, regional, national and international regulations.

Maximum Storage Temperature : Not determined

Storage Procedures : Take precautions to avoid release to the environment. Store in a cool, dry, well-ventilated area. Keep container closed when not in use. See section 10 for incompatible materials.

Maximum Loading Temperature : Not determined

Section 8 Exposure Controls/ Personal Protection

Exposure Limits : None established

Other exposure limit : The industry-recommended permissible exposure limit for respirable polyacrylate dusts is 0.05 mg/m3

Engineering control : If use generates a dust, local exhaust ventilation is recommended. Prevent inhalation by providing effective general and, when necessary, local exhaust ventilation to draw dust away from workers. Avoid high concentrations of dust in air and accumulation of dust on equipment.

Gloves Procedures	:	Use good industrial hygiene practices to avoid skin contact. If contact with the material may occur wear chemically protective gloves.
Eye Protection	:	Safety glasses or goggles
Respiratory protection	:	Use dust masks and depending upon your specific use, appropriate respirator can be used with all applicable regulations.
Clothing recommendation	:	Long sleeve shirt is recommended.

Section 9 — Physical and chemical Properties

Flash Point	:	Not applicable
Upper Flammable limit	:	Not determined
Lower Flammable limit	:	Not determined
Auto-ignition Point	:	520°C, 968°F
Explosion Data	:	Dust can form explosive mixtures in the air.
Vapor pressure	:	Not determined
pH	:	2.5 – 3 at 1% in water
Specific Gravity	:	1.4 (20°C)
Bulk Density	:	< 0.24 Kg/L, < 2 Lb/gal
Water solubility	:	Material will swell in water
Percent solid	:	Not determined
Percent volatile	:	> 2% By Weight
Volatile Organic Compound	:	Not determined
Vapor density	:	Not determined
Evaporation rate	:	Not determined
Odor	:	Slight acetic
Appearance	:	White powder
Viscosity	:	Not determined
Odor Threshold	:	Not determined
Boiling Point	:	Not determined
Pour Point Temperature	:	Not determined
Melting / Freezing Point	:	Not determined

Section 10 — Stability and Reactivity

Stability	: Material is normally stable at moderately elevated temperature and pressures.
Decomposition Temperature	: Not Determined
Incompatibility	: Heat may be generated if polymer comes in contact with strong basic materials like ammonia, sodium hydroxide or strong basic amines.
Polymerization	: will not occur
Thermal decomposition	: Smoke, carbon monoxide, carbon dioxide, aldehydes and other products of incomplete combustion.
Conditions to Avoid	: Not Determined

Section 11	Toxicological Information

--ACUTE EXPOSURE -

Eyes Irritation	:	Not expected to cause eye irritation. Based on data from components or similar materials. Particulates may cause mechanical irritation. Solid particles (powder or dust) on the eye may cause pain and irritation.
Skin Irritation	:	Not expected to be a primary skin irritant. Based on data from components or similar materials.
Respiratory Irritation	:	Breathing of dust may cause coughing, mucous production, and shortness of breath.
Dermal Toxicity	:	Rabbit LD50>5000 mg/kg. Based on data from components or similar materials.
Inhalation Toxicity	:	Avoid inhalation of dust. Animal studies indicate the inhalation of respirable polyacrylate dust may cause inflammatory changes in the lung.
Oral Toxicity	:	Rat LD50>5000 mg/kg. Based on data from components or similar materials.
Dermal Sensitization	:	Not expected to cause skin sensitization. Based on data from components or similar materials.
Inhalation Sensitization	:	No data available to indicate product or components may be respiratory sensitizers.

--CHRONIC EXPOSURE-

Chronic Toxicity	:	There were no observed adverse effects at exposures of 0.05 mg/m3 However, the inhalation of respirable dusts should be avoided by implementing respiratory protection measures and observing the recommended permissible exposure limit of 0.05 mg/m3.
Carcinogenicity	:	Not listed as a carcinogen or suspect carcinogen by OSHA.
Mutagenicity	:	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Reproductive Toxicity	:	No data available to indicate either product or components present at greater than 0.1% that may cause reproductive toxicity.
Teratogenicity	:	No data available to indicate product or any components contained at greater than 0.1% may cause birth defects.

--ADDITIONAL INFORMATION-

Other	:	Pre-existing skin conditions may be aggravated by prolonged or repeated exposure. Persons with sensitive airways (e.g. asthmatics) may react to vapors. This material readily absorbs moisture and may become thick and gelatinous upon contact with mucous membranes of the eye, or upon inhalation into the nasal passages.

Section 12	Ecological Information

Freshwater Fish Toxicity : The acute LC_{50} is 100-1000 mg/L based on literature.
Freshwater Invertebrate Toxicity : The acute EC_{50} is 100-1000 mg/L based on literature.
This product is not biodegradable; do not inhibit waste treatment bacteria; and do not pass through typical waste water treatment to the environment.

Section 13	Disposal Considerations

Waste Disposal : This material if discarded, is a hazardous waste under RCRA Regulation 40 CFR 261. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

Section 14	Transport Information

Pack Size: 20 kg & 5 kg.
Not a dangerous good within the meaning of transportation regulations.

Section 15	Regulatory Information

SARA Ext. Haz. Subst. : This product does not contain greater than 1.0% of any chemical substances on the SARA Extremely Hazardous substance list.
SARA Section 313 : This product does not contain greater than 1.0% (greater than 0.1% for carcinogenic substance) of any chemical substances listed under SARA section 313.

SARA 311 Classifications :

Acute Hazard	No
Chronic Hazard	No
Fire Hazard	No
Reactivity Hazard	No

Section 16	OTHER INFORMATION

The information set forth herein has been gathered from standard reference materials and / or **THE LEELA CORPORATION** test data. The information containing herein is based on the present state of our knowledge and is intended to describe our product from the view of safety requirements. It should not therefore be construed as guaranteeing specific properties.

This product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. Safe handling and use remain the responsibility of the user.