Material Safety Data Sheet

Revision Date: 9/1/99 NA = Not Applicable NE = Not Established

Section 1. General Information

Product Name: **IPATOP HES (High Early Strength)**

Chemical Family: Cements

Manufacturer: **IPA Systems, Inc.**
2745 North Amber Street, Philadelphia, Pa. 19134
Phone: 800-523-3834 • 215-425-6607
Fax: 215-425-6234
E-mail: info@ipasystems.com
Website: www.ipasystems.com

WHMIS Classification: Class D, Division 2A; Class E

HMIS Rating:
Health: 3
Fire: 0
Reactivity: 0
Personal Protection: See other sections of this MSDS for PPE guidelines

NMFC Name: Cements, Hydraulics
NMFC Number: 42130 LTL: 50 TL: 35

Emergency Phone Number - Chemtrec: 800-424-9300

Section 2. Hazardous Ingredients

Principal Hazardous Components:	C.A.S. Reg. No.	Percent	Threshold Limit Value (units)
Crystalline Silica (SD)	14808-60-7	45 – 55	0.1 mg/m^3 resp.
Portland Cement (PC)	65997-15-1	10 – 25	5 mg/m^3 resp., 10 mg/m^3 total
Calcium Aluminate Cement	65997-16-2	10 – 25	
Hydrated Calcium Sulfate (CS)	7778-18-9	5 – 15	10 mg/m^3

Section 3. Physical Data

Boiling Point (F): NA

Specific Gravity: (H_2O = 1): 3.0

Vapor Pressure (mm Hg.): NA

Percent Volatile by Volume: NA

Vapor Density (Air = 1): NA

Evaporation Rate: NA

Solubility in Water: Slight

pH: NA

Volatile Organic Compounds: 0

Appearance and Odor: Grey powder, no odor

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Section 4. Fire and Explosion Hazard Data

Flash Point: NA

Auto Ignition Temperature: NA

Flammable Limits: LEL = NA UEL = NA

Extinguishing Media: CO_2, foam or water

Special Fire Fighting Procedures: Firefighters should use positive pressure MSHA/NIOSH approved self-contained breathing apparatus, protective clothing and full emergency equipment. Only properly trained personnel should respond to a significant fire involving this material.

Unusual Fire & Explosion Hazards: NA

Section 5. Health Hazard Data

OSHA PEL: 0.1 mg/m^3 resp. – SD
5 mg/m^3 resp., 10 mg/m^3 total – PC
10 mg/m^3 resp. – CS

ACGIH TLV: 0.1 mg/m^3 – SD
5 mg/m^3 resp., 10 mg/m^3 total – PC
10 mg/m^3 – CS

Carcinogen – NTP Program: Yes (SD)

Carcinogen – IARC Program: Yes (SD)

Symptoms of Exposure: Acute – Wet cement, especially as an ingredient in plastic concrete, can dry the skin and cause alkali burns. Cement dust can irritate the eyes, skin and upper respiratory system.
Chronic – Cement dust can cause inflammation of the lining tissue of the interior of the nose and inflammation of the cornea. Hypersensitive people may develop dermatitis. (Cement may contain traces of hexavalent chromium.) Exposure to silica dust may cause permanent lung damage and cancer (Silicosis).

Medical Conditions Aggravated by Exposure: Dermatitis.

Routes of Entry: Eye Contact, Skin Contact, Inhalation, Ingestion.

Emergency and First Aid Procedures:

Eye Contact: Flush eyes with water for at least 15 minutes. Get medical attention immediately.

Skin Contact: Wash affected areas of the body immediately with soap and water. If any symptoms occur, get medical attention immediately. Wet cement can cause severe chemical burns and dry skin.

Inhalation: If symptoms such as nausea, headaches, dizziness, breathing difficulties or respiratory irritation occur, immediately remove victim to fresh air away from danger of further exposure. Give oxygen or artificial respiration as needed. Get medical attention immediately.

If Swallowed: Get medical attention immediately. Do not induce vomiting. Never give anything to drink to an unconscious person.

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Section 6. Reactivity Data

Stability: Stable

Conditions to Avoid: Keep dry until ready to use. Other materials should never be added to this product except as specifically directed by the manufacturer.

Incompatibility (Materials to Avoid Contact): Hydrofluoric acid. This product should be used as is.

Hazardous Decomposition or By-Products: Toxic fumes of NOx and COx. NOx can theoretically combine with water vapor to form nitric acid.

Hazardous Polymerization: Should not occur under normal conditions.

Section 7. Procedures for Safe Handling and Use

Spill Response: Use dry cleanup methods that do not disperse the dust into the air. Avoid breathing the dust. Keep out of surface waters, sewers and waterways entering or leading to surface waters.

Waste Disposal Method: Material can be returned to container for later use, or it can be disposed of as hazardous waste. Always dispose of waste according to local, state and federal regulations.

Other Precautions: See all other sections of this MSDS.

Section 8. Control Measures

Respiratory Protection: Concentrations greater than the TLV can occur when used in a poorly ventilated area. Use NIOSH approved air respirator when concentrations are expected to exceed the TLV. (See OSHA 29 CFR 1910.134) Avoid breathing vapors, mists, fumes and airborne dusts.

Ventilation: Local exhaust recommended to prevent build-up above the TLV.

Skin Protection: Use chemical resistant gloves and protective clothing to protect skin from contact.

Eye Protection: Use safety glasses, goggles or face shield to prevent eye contact.

Other Protection: Wash thoroughly before eating. Wash contaminated clothing before reuse.

Section 9. Special Precautions

Hygienic Practices in Handling and Storage: This product may contain 30 - 60% silica sand, a portion of which may be respirable dust. In its dry state, refrain from inhalation of dust to prevent possible free silica exposure.

Precautions for Repair and Maintenance of Contaminated Equipment: NA

Other Precautions: Store material in a cool, dry place.

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Section 10. Regulatory Information

SARA / Title III – Toxic Chemicals List:

This product does not contain a toxic chemical for routine annual "Toxic Chemical Release Reporting" under Section 313 (40 CFR 372).

Toxic Substances Control Act (TSCA):

All ingredients of this product are listed on the TSCA inventory.

WHMIS Classification: Class D, Division 2A; Class E

HMIS Rating: Health: 3
Fire: 0
Reactivity: 0
Personal Protection: See other sections of this MSDS for PPE guidelines

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

California Proposition 65:

This product contains trace amounts of the following chemicals known to the state of California to cause cancer and/or reproductive toxicity.

Lithium carbonate
Crystalline silica (respirable fraction)
Chromium

Massachusetts Substance List:

This product contains the following chemicals, some at trace levels, which are listed on the State Of Massachusetts Right-to-Know List:

Portland cement	Crystalline silica
Amorphous silica	Calcium oxide
Calcium sulfate	Zinc sulfate
Lithium carbonate	Titanium dioxide
Calcium silicate	Magnesium oxide (fume)
Iron oxide (dust)	Sodium hydroxide (< 0.01%)

New Jersey Right-to-Know Hazardous Substance List:

This product contains the following chemicals, some at trace levels, which are listed on the State Of New Jersey Right-to-Know Hazardous Substance List:

Crystalline silica	Zinc Sulfate
Calcium sulfate	Lithium carbonate
Titanium dioxide	Magnesium oxide
Iron oxide	Calcium oxide
Aluminum sulfate	Sodium hydroxide (< 0.01%)

Pennsylvania Hazardous Substance List:

Crystalline silica	Zinc Sulfate
Calcium silicate	Calcium oxide
Portland cement	Aluminum oxide