

MATERIAL DATA SAFETY SHEET**Section 1 – Chemical Product and Company Identification**

Product Name: LT-450 Coating Binder

MSDS No. 00-003

Manufacturer: Adiabatics, Inc. – Composite Coatings Division
3385 Commerce Drive
Columbus, IN 47201**Section 2 – Composition and Toxicity Data**

Component	%	CAS No.	OSHA PEL	ACGIH TLV	Other
Chromium (III) Phosphate (CrPO ₄ ·4H ₂ O)	15	* not known	0.5 mg/m ³	0.5 mg/m ³	
Chromium Trioxide (CrO ₃)	<0.2	1333-82-0	0.1 mg/m ³	0.05 mg/m ³	
Phosphoric Acid (H ₃ PO ₄)	2.4	7644-38-2	1 mg/m ³	1 mg/m ³	
Methanoic Acid	<0.2	64-18-6	5 ppm	10 ppm	
Water (H ₂ O)	Bal.				

Section 3 – Hazard Information

Appearance and Odor: Dark Green to Olive Green Liquid, none

HMIS Rating: Health 3, Fire 1, Reactivity 1.

Primary Entry Routes: Inhalation of mist, eye / skin contact, incidental or inadvertent ingestion.

Target Organs: Respiratory tract especially cartilage, skin, eyes, kidneys and liver.Threshold Limit Value 0.5 mg/m³, same as Cr.**Inhalation:** Inhalation of mists of chromium trioxide and chromium compounds can cause ulceration and perforation of the nasal septum as well as irritation and damage to the respiratory system. Symptoms of such irritation may resemble those of asthma such as coughing, difficulty breathing and shortness of breath, rapid breathing, and chest tightness.**Eye:** Mists and strong solutions can burn eye tissue and cause blindness. Dilute solutions can cause irritation and conjunctivitis.**Skin:** Dusts and solutions can cause burns or irritation of body tissues. Contacts with breaks in the skin can cause "chrome sores" or skin ulcers. Skin absorption has been reported.**Ingestion:** Can cause severe injury or death. Toxic effects may not appear right away. A systemic poison, the CrO₃ portion is primarily toxic to the kidneys and liver.**Section 4 - First Aid Measures****Skin:** Wash with plenty of water without delay. May wash with solution of baking soda to neutralize effects of acid. Remove contaminated clothing.**Eyes:** Immediately flush with plenty of water for at least 15 minutes and get medical attention. Strongly advisable to keep eye flush station functional and near location of use.**Ingestion:** Have victim drink water to dilute acid. Do not induce vomiting and get prompt medical attention.

Section 5 – Fire and Explosion Data

Flash Point: No Data

Autoignition Temperature: No Data

Flammable Limits in Air, % by volume: Lower: No data
Higher: No data

Extinguishing Media: Use water, carbon dioxide, dry chemical extinguishing agents, dry sand, or dry ground dolomite.

Special Fire Fighting Procedures: No special firefighting procedures needed. Use normal procedures, which include wearing NIOSH/MSHA approved self-contained breathing apparatus, flame and chemical resistant clothing; hats, boots, gloves. If without risk, remove material from fire area. Cool container with water from a distance.

Usual Fire and Explosion Hazards: May emit toxic fumes if thermally decomposed.

Section 6 – Reactivity Data

Stability: Stable

Conditions to avoid: No data

Incompatibility: Will mildly react with many organics and reducing agents.

Hazardous Decomposition Products: PO_x , at high temperatures (Cr^{+3})

Conditions to Avoid: Not applicable

Section 7 - Spill or Leak Procedures

Steps to be taken if material is released or spilled: Wearing full protective clothing and respiratory protection, eliminate all sources of ignition. Cover Spill with dry sand or dry vermiculite, mix well and carefully transfer to a well-marked container, preferably high-density polyethylene. Close container tightly. Submit or retain for proper disposal.

Waste disposal method: Consult state, local or federal EPA regulations for proper disposal.

Section 7 – Physical Data

Under standard temperature and pressure: Material is a liquid

Specific Gravity: 1.7 gm/cc

Solubility in Water: Soluble

Chemical Nature: Inorganic Metal Phosphate

% Volatiles by Weight: Not applicable

Section 8 – Special Protection Information

Respiratory Protection: NIOSH/MSHA approved dust mask for ordinary use, self-contained breathing apparatus for emergency use.

Ventilation - Local exhaust: Acceptable

Mechanical: Acceptable

Special: Not required

Other: Not required

Protective Gloves: Rubber

Eye Protection: OSHA approved safety goggles.

Other Protective Equipment: Lab coat or apron, flame and chemical resistant coveralls, eyewash capable of sustaining flushing, safety drench shower and hygienic facilities for washing.

Section 9 - Special Precautions

Precautionary Labeling: Warning: may irritate eyes. Use in well ventilated area.

Other Handling and Storage Conditions: Keep container tightly closed. Store in cool dry well ventilated area. Wash thoroughly after use.

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement or suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty and any use of the product not in conformance with this MSDS or in combination with any other process or procedure is the responsibility of the user.