

MATERIAL SAFETY DATA SHEET

Product Name: Graphite (Carbon)

Catalog Number: All Ladd Carbon rods, specimen mounts and planchets

DOT Hazard Class: Not Hazardous

MSDS Prepared: 9/2011

Distributed By: Ladd Research

83 Holly Court

Williston, VT 05495

(802) 658-4961

COMPONENTS

	<i>CAS Number</i>	<i>Percent</i>	<i>Exposure Limits</i>
Graphite	7782-42-5	>99	10mg/m ³ ACGIH (total dust)

PHYSICAL AND CHEMICAL DATA

Boiling Point: 8720°F

Melting Point: 6605°F

Solubility in Water: Insoluble

Specific Gravity: 2.00-2.25

Physical Description: Black greasy odorless solid

FIRE AND EXPLOSION HAZARD DATA

Flash Point: Very high

HEALTH HAZARD DATA

Inhalation: May cause irritation to the respiratory tract. Symptoms may include coughing and shortness of breath. May produce black sputum, decreased pulmonary function and lung fibrosis.

Ingestion: Not expected to be a health hazard via ingestion. May cause irritation to the gastrointestinal tract. Symptoms may include nausea, vomiting and diarrhea.

Skin Contact: May cause mild irritation and redness.

Eye Contact: May cause mild irritation, possible reddening.

Chronic Exposure: Chronic inhalation exposure to natural graphite is associated with the development of pneumoconiosis, a disease of the lungs.

Aggravation of Pre-existing Conditions: Persons with pre-existing respiratory or cardiopulmonary problems may be more susceptible to the effects of this substance.

EMERGENCY AND FIRST AID

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Not expected to require first aid measures. If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact: Immediately flush skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before

reuse. Get medical attention if irritation develops.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get medical attention if irritation persists.

REACTIVITY DATA

Stability: Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products: Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization: Will not occur.

Incompatibilities: Graphite reacts vigorously with liquid potassium, potassium peroxide and will ignite with chlorine trifluoride and fluorine. If graphite contacts liquid potassium, rubidium, or caesium at 300C, intercalation compounds may be formed. These compounds may explode on contact with water or ignite in air.

Conditions to Avoid: Incompatibles.

SPILL, DISPOSAL AND STORAGE INFORMATION

Spills: Sweep up and containerize for reclamation or disposal. Vacuuming or wet sweeping may be used to avoid dust dispersal.

Disposal: Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Storage: Store in a cool, dry place.

PROTECTIVE EQUIPMENT AND CONTROL MEASURES

Ventilation System: A system of local and/or general exhaust is recommended.

Skin Protection: Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

SECTION 313 SUPPLIER NOTIFICATION

Not applicable.

The information presented is believed to be correct and is the most accurate information available to us at this time. However, Ladd Research makes no warranty, express or implied, and assumes no liability for this information and the product described herein.