



# Material Safety Data Sheet

## Section 1 - Product Identification and Use

Product Identifier: **PYROLUCITE**  
Common Name: Manganese Dioxide Ore  
Product Use: Used to filter out impurities in Water Filtration Systems  
NSF 61 Compliant

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**Manufacturer's Name:**

AWI (Anthratech Western Inc.)  
4450 – 46 Avenue, SE  
Calgary, Alberta T2B 3N7

**Supplier's Name:**

AWI (Anthratech Western Inc.)  
4450 – 46 Avenue, SE  
Calgary, Alberta T2B 3N7

**Emergency Phone (403) 255-7377****Emergency Phone (403) 255-7377**

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## Section 2 - Hazardous Ingredients

MANGANESE DIOXIDE:	69 - 84%	C.A.S. 1313-13-9
IRON OXIDE:	2 - 10%	C.A.S. 1309-37-1
SILICON DIOXIDE:	3 - 8%	C.A.S. 14808-60-7
AMORPHOUS OXIDE:	2 - 8%	C.A.S. 61790-53-2
ALUMINUM OXIDE:	2 - 5%	C.A.S. 1344-28-1
BARIUM OXIDE:	0.1 - 2%	C.A.S. 7440-39-3

Trace (<1.0) amounts of calcium oxide, magnesium oxide, lead and zinc exist in this product

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## Section 3 - Physical Data

Boiling Point:	N/A	Freezing Point:	N/A
Vapour Pressure:	(mm Hg) N/A	Melting Point:	N/A
Evaporation Rate:	N/A	Specific Gravity:	N/A
Appearance and Odour:	Black powder or granular material - No odour		

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## Section 4 - Fire and Explosion Data

Flash Point:	(Method) N/A
Flammable Limits:	N/A
Special Fire Fighting Procedures:	Treat as chemical fire, using water in large quantity for heat removal & dispersion purposes
Extinguishing Media:	Dry chemicals salt or sand
Unusual Fire & Explosion Hazards:	Will act as a strong oxidizer in circumstances with unstable chemicals or in the presence of fire & substances easily oxidized (metals, combustibles, organics)

*"NOTE"* Manganese mineral ore should be kept away from heat and flammable materials - when heated above 1000 f manganese dioxide liberates oxygen which supports combustion.

## Section 5 - Reactivity Data

Stability:	Material is stable.
Incompatibility:	Manganese dioxide ore is incompatible with chlorates, aluminum dirubidium acetylide, hydrogen sulfide, potassium azide, chlorine trifluoride, hydrogen peroxide and sodium peroxide.

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## Section 6 – Toxicological Data

Health Hazards:	Free or elemental manganese is not present in this ore and does not exert any significant acute affects. High concentrations of ore dust can result in irritation of the eyes.
Chronic:	Avoid high concentrations. Over-exposure averaging 210 mg/m <sup>3</sup> has been associated with pneumonia. High concentrations may adversely effect the central nervous system, including languor, sleepiness, weakness, emotional disturbances, spastic gait, mask-like facial expression and paralysis. Manganese may enhance susceptibility to bacterial and viral infection.
Inhalation:	If overexposure to dust occurs, remove victim from the adverse environment and seek medical attention give artificial respiration if victim has stopped breathing.
Eye Contact:	Flush with large amounts of water and seek prompt medical attention.
Ingestion:	Ingestion is not a probable source of exposure to the dust. If particles are ingested give 1-2 glasses of water or milk. Induce vomiting only if victim is fully conscious and has not convulsed. Seek medical attention.

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## Section 7 – Preventative Measures

If there is a spill:	Use clean up methods, which avoid dust - generations such as dry or wet vacuuming. Wear approved dust mask and protective eyeglasses to minimize exposure.
Waste Disposal:	Dispose in accordance with applicable regulations.
Precautions to be taken in handling and storage:	Store in cool, dry, well ventilated area. Do not store near strong acids or flammable material.

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## Section 8 – First Aid

Respiratory:	Wear approved dust and mist respirator NIOSH/OHSA
Eyes:	Approved safety glasses with side shields must be worn at all times
Ventilation:	Use local or mechanical ventilation
Clothing:	Proper work clothing to be worn to prevent skin contact
Hygiene:	Wash thoroughly with soap and water after handling and before eating or smoking

*W.H.M.I.S. CLASSIFICATION C*

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## Section 9 - Preparation of Date of MSDS

Prepared by:	Production & Quality Control
Telephone Number:	[403] 255-7377
Date Prepared:	February 7, 2007

The information contained herein is accurate to the best of our knowledge. However, data, safety standards and government regulations are subject to change, and conditions of handling, use or misuse of this product are beyond our control. Users should satisfy themselves that they are aware of all of the current data relevant to their particular use.