



## MATERIAL SAFETY DATA SHEET

in accordance with 91/155/EEC

### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

**Product Name:** Product 1830

**Date of Preparation:** 4 November 2004

**MSDS No.** 1130

Not classified as hazardous according to criteria of Worksafe Australia.

**Company:**

A.W. CHESTERTON COMPANY  
860 Salem Street  
Groveland, MA 01834-1563, USA  
Tel.: +1 978-469-6446  
(Mon. - Fri. 8:30 - 5:00 PM EST)

**Supplier:**

**For Chemical Emergency:**

24 hours per day, 7 days per week

Call Infotrac: 1-800-535-5053

Outside N. America: +1 352-323-3500 (collect)

**Use:** Graphite coated Polytetrafluoroethylene (PTFE) yarn. For use against water, steam, oil, solvents, acids and alkalis to 260°C (500°F), pH 0-14.

### 2. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients <sup>1</sup>	% Wt.	CAS No.	EC No.	Symbol	R-phrases
Graphite	40-50	7782-42-5	231-955-3	—	—

### 3. HAZARDS IDENTIFICATION

None expected in industrial use. PTFE is nonhazardous at ambient temperatures. At temperatures above 260°C (500°F), toxic decomposition products may be emitted. Due to toxic decomposition, avoid smoking (wash hands to avoid transfer to tobacco products) when handling.

### 4. FIRST AID MEASURES

**Inhalation:** If overcome by decomposition fumes, remove to fresh air. If not breathing, administer artificial respiration. Contact physician.

**Skin Contact:** Wash skin with soap and water. Contact physician if irritation persists.

**Eye Contact:** Flush eyes for at least 15 minutes with large amounts of water. Contact physician if irritation persists.

**Ingestion:** not applicable

**Advice to Physician:** Treat symptoms.

**5. FIRE-FIGHTING MEASURES**

<b>Extinguishing Methods:</b>	Carbon Dioxide, dry chemical, foam or water spray
<b>Unusual Fire and Explosion Hazards:</b>	Toxic fumes may be emitted at temperatures above 260°C (500°F).
<b>Special Fire Fighting Measures:</b>	Recommend Firefighters wear self-contained breathing apparatus.
<b>Flammability Classification:</b>	—
<b>HAZCHEM Emergency Action Code:</b>	2 <b>Z</b>

**6. ACCIDENTAL RELEASE MEASURES**

<b>Personal Precautions:</b>	Utilize exposure controls and personal protection as specified in Section 8.
<b>Environmental Precautions:</b>	No special requirements.
<b>Methods of Clean Up:</b>	No special steps required. nontoxic

**7. HANDLING AND STORAGE**

<b>Handling:</b>	Do not smoke when handling PTFE products; wash hands after handling to avoid transfer to tobacco products.
<b>Storage:</b>	Store in a cool, dry area.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

Hazardous Ingredients	OSHA		ACGIH TLV		AUSTRALIA	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Graphite	15 mppcf	(resp)	(resp)	2	(resp)	3

<b>Respiratory Protection:</b>	Not normally needed.
<b>Ventilation:</b>	No special requirements.
<b>Protective Gloves:</b>	Not normally needed.
<b>Eye Protection:</b>	Not normally needed.
<b>Other:</b>	none

**9. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical state</b>	solid	<b>Odour</b>	none
<b>Colour</b>	gray / black	<b>Vapour pressure @ 20°C</b>	not applicable
<b>Initial boiling point</b>	not applicable	<b>% Aromatics by weight</b>	not applicable
<b>Melting point</b>	not applicable	<b>pH</b>	not applicable
<b>% Volatile (by volume)</b>	not applicable	<b>Density</b>	not applicable
<b>Flash point</b>	not applicable	<b>Weight per volume</b>	not applicable
<b>Method</b>	not applicable	<b>Coefficient (water/oil)</b>	not applicable
<b>Viscosity</b>	not applicable	<b>Vapour density (air=1)</b>	not applicable
<b>Autoignition temp.</b>	not determined	<b>Rate of evaporation (ether=1)</b>	not applicable
<b>Explosion limits</b>	not applicable	<b>Solubility in water</b>	insoluble
		<b>Other</b>	none

10. STABILITY AND REACTIVITY		
Stability:	Stable	
Hazardous Polymerization:	Will not occur.	
Hazardous Decomposition Products:	Carbon Monoxide, Carbon Dioxide, trace amounts of Hydrogen fluoride, Perfluorocarbon olefins, and other toxic fumes may be evolved above 260°C (500°F).	
Conditions to Avoid:	Extreme heat above 260°C (500°F).	
Materials to Avoid:	Fluorine, Chlorine, Trifluoride and related compounds and molten alkali metals.	
11. TOXICOLOGICAL INFORMATION		
Primary Route of Exposure Under Normal Use:	Inhalation, skin and eye contact. Personnel with pre-existing chronic respiratory impairments may be aggravated by exposure.	
Acute Effects:	Graphite dust may cause mechanical irritation to the skin, eyes and nasal passages. PTFE is nonhazardous at ambient temperatures. However, small quantities of toxic gases may be produced at temperatures above 260°C (500°F), due to PTFE decomposition. Inhalation of these decomposition products may cause temporary flu-like symptoms.	
Chronic Effects:	Repeated inhalation of nuisance dust in excess of exposure limits over an extended period of time may result in injury to the lungs.	
Other Information:	As per 29 CFR 1910.1200 (Hazard Communication), this product contains no carcinogens as listed in the National Toxicology Program (NTP), the International Agency for Research on Cancer (IARC) or the Occupational Safety and Health Administration (OSHA).	
12. ECOLOGICAL INFORMATION		
Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar substances.		
Mobility:	Solid. Insoluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9).	
Degradability:	Graphite: exists in nature. PTFE: nonbiodegradable.	
Accumulation:	not determined	
Ecotoxicity:	not determined	
13. DISPOSAL CONSIDERATIONS		
Unused product is not a regulated waste. Check local, state and national/federal regulations and comply with the most stringent requirement.		
EWC-code:	07 02 13	
14. TRANSPORT INFORMATION		
TDG:	NONHAZARDOUS, NOT REGULATED	U.S. DOT : Shipping Name: NONHAZARDOUS Hazard Class: NOT REGULATED UN/NA # : NOT APPLICABLE Packaging Group # NOT APPLICABLE Emergency Response Guide Book No. - NOT APPLICABLE
IMDG:	NONHAZARDOUS, NOT REGULATED	
IATA/ICAO:	NONHAZARDOUS, NOT REGULATED	
ADR/RID:	NONHAZARDOUS, NOT REGULATED	

**15. REGULATORY INFORMATION****European Classification:**<sup>1</sup> none**R-Phrase(s):** –**S-Phrase(s):** –**Name of the substances on the label:** –**Other information:** none**Canadian Classification:**<sup>1</sup> D2B: Toxic materials causing other effects**Risk Phrase(s):** Prolonged, excessive inhalation of Graphite dust has caused emphysema and pneumoconiosis.**Precautionary and First Aid Measure(s):** Avoid excessive creation and inhalation of dust during removal, drilling, grinding, cutting or sanding.**Other Information:** none**16. OTHER INFORMATION****US EPA SARA TITLE III****312 Hazards :** Immediate  
**313 Chemicals :** None**Hazardous Materials Identification System (HMIS)**4 = Severe Hazard  
3 = Serious Hazard  
2 = Moderate Hazard  
1 = Slight Hazard  
0 = Minimal Hazard  
\* = See Section 8

<b>HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>0</b>
<b>REACTIVITY</b>	<b>1</b>
<b>Personal Protection</b>	<b>*</b>

**JAPAN PRTR****Class I Chemicals :**  
none**Class II Chemicals :**  
none**Risk phrases in section 2:** none**Changes to the MSDS in this revision:** Original issue.

This information is based solely on data provided by suppliers of the materials used, not on the mixture itself. No warranty is expressed or implied regarding the accuracy of the data or the suitability of the product for the user's particular purpose. The user must make their own determination as to suitability.