Asbury Graphite Mills, Inc.	PO Box 144, 405 Old Main St. Asbury, NJ 08802	908-537-2155
Cummings – Moore Graphite Co.	1646 N. Green Ave. Detroit, MI 48209	313-841-1615
Anthracite Industries	PO Box 112, Sunbury, PA 17801	570-286-2176
Southwestern Graphite	PO Box 876, 2564 Hwy 12 DeQuincy, LA 70633	337-786-5905
Asbury Graphite of California	2855 Franklin Canyon Rd. Rodeo, CA 94572	510-799-3636
Asbury – Wilkinson	1115 Sutton Drive Burlington, ON, L7L 5Z8 Canada	905-332-0862
Asbury Graphite & Carbons NL B.V.	Fregatweg 46 B-C, Maastricht 6222 NZ Netherlands	+31437600610
Graphitos Mexicanos de Asbury, S.A. de C.V.	Blvd José Maria Morelos No.389 Nte, Hermosillo 83148 Mexico	526622678598

Safety Data Sheet

Section 1 – Identification of the Substance / Preparation, and of the Company

1.1: Product Identifier

Trade Name: Complex Mixture Grade: Marcote #7

Substance Name: CAS Numbers: See Section 3 EC Numbers: See Section 3

1.2: Indentified uses of the substance or mixtures

1.2.1 Uses: Foundry coating applications

1.2.2 Uses Advised Against: For industrial use only, not for food, drug, or cosmetic applications.

1.3: Supplier Information

Company/Manufacturer: Asbury Carbons, Inc.
PO Box 144, 405 Old Main Street
Asbury, NJ 08802

Telephone: 908-537-2155
Telefax: 908-723-2908
Preparer: AVT
Email Address: albert@asbury.com
Date Prepared: 12-01-2015

1.4: Emergency Telephone Number 1-800-255-3924

Section 2: Hazards Identification
2.1: Classification of substance:

2.1.1 Under certain conditions this mixture may be considered hazardous according to OSHA 29 CFR 1910.1200.

2.1.2 This mixture is not classified as hazardous substances per European hazardous classification.

2.2: Label Elements

Hazard Statement: H373 may cause damage to lung through prolonged or repeated inhalation.
Precautionary Statement: P260: do not breath dust
P285: In case of inadequate ventilation wear respiratory protection.

2.3: Other hazards
None known

Section 3 – Composition/Information on Ingredients:
Chemical Composition:

Iron Oxide, Fe_2O_3 , 0-10%
CAS # 1309-37-1, EC # 215-168-2
Molecular Weight: 159.7

Silica, Crystalline Silica, variety Quartz 0.5-1.0% (may or may not be in respirable form)
CAS # 14808-60-7, EC # 238-878-4
Molecular Weight: 60.0

Talc, 0-10%
CAS# 14807-96-6, EC# 238-877-9
Molecular Weight: 379

Calcium carbonate, precipitated, $CaCO_3$, 10-30%
CAS# 471-34-1
Molecular Weight: 80.0

Sodium Silicate, Na_2SiO_3, 0-6%
CAS# 1344-09-08
Molecular Weight: 122.1

Section 4 – First Aid Measures

4.1.1 Inhalation	Remove patient to particulate-free environment. Wear approved dust mask to avoid breathing dust. Seek medical attention if irritation persists. Inhalation of sodium silicate may cause respiratory irritation.
4.1.2 Skin Contact	Wash with mild soap and warm water: This mixture is non-staining to skin. Sodium silicate is caustic (strongly alkaline and my cause skin irritation.
4.1.3 Eye Contact	Rinse with tepid water until eyes are clear of particulates. Direct contact with sodium silicate may cause server eye damage. Seek medical attention if irritation persists.
4.1.4 Ingestion	Get immediate medical attention. Do not induce vomiting unless directed by medical personnel.

4.2 Most important symptoms and effects, both acute and delayed: No Data Available
4.3 Indication of any immediate medical attention and special treatment needed: If patient exhibits shortness of breath, choking, powder inundated eyes or mouth; immediate medical attention may be required.

Section 5 – Fire Fighting Measures

This mixture is not flammable or combustible.	
5.1 Extinguishing Media	Non combustible mixture
5.2 Special Hazards Products of Combustion:	None known
5.3 Advice for Fire Fighters: Use self contained air pack, gloves, safety goggles	
5.4 Additional Information: USA NFPA Rating 100	

Section 6 – Accidental Release Measures

Methods for Cleaning Up:	Wear approved dust mask, safety goggles, and conventional work gloves.
	Conventional Sweep or vacuum. Avoid creating dusting conditions
6.1 Personal precautions , protective equipment and emergency procedures	
6.1.1 For non-emergency personnel: Wear approved dust mask, safety goggles, and conventional work gloves. Use conventional cleanup techniques and avoid creating dust. Vacuum is preferred over sweeping. Be cautious of slip hazard on wet or dry pedestrian surfaces. Wear a dust mask/respirator to reduce the change of inhaled dust.	
6.1.2 For emergency responders: Wear approved dust mask, chemical goggles, and conventional work gloves. Same methodology as for non-emergency personnel(sec 6.1.1)	
6.2 Environmental Precautions: The sodium silicate portion of this mixture is caustic (strongly alkaline) and water soluble. Do not allow this mixture to enter waterways or ground water. Good housekeeping practices must be followed and spilled material should be cleaned up, and disposed of in an appropriate manner.	
6.3 Methods and material for containment and clean up: No special containment needed other than conventional vacuuming and waste containment. Avoid creating dust.	
6.4 Reference to other sections: Not needed 6.5 Additional information: Not needed	

Section 7 – Handling and Storage

7.1 Precautions for safe handling

7.1.1 Handling Use conventional methods, but avoid dusting conditions. Provide sufficient exhaust ventilation in areas where dust is created. Wear suitable respiratory protection. Keep powder from contacting eyes. The talc portion of this mixture may present a slip hazard when deposited on pedestrian surfaces.
7.2 Conditions for safe storage, including any incompatibilities.
Storage: Keep packaging closed or covered. The sodium silicate portion of this mixture is hygroscopic.
Incompatibilities: None known.
Dust Explosibility Hazards: Non combustible

Section 8 – Exposure Controls/ Personal Protection

8.1 Control parameters: Follow workplace regulatory exposure limits for all types of airborne dust.

8.1.1 Occupational exposure limits: The occupational exposure limits posted here are from ACGIH. For equivalent values of other countries please consult a verified source for local regulatory exposure limit values.

Component	CAS No.	%	ACGIH TWA	Control Reference
Iron oxide	1309-37-1	0-10	5.0 mg/m^3 Respirable dust	2014 ACGIH TLV Handbook
Silica (quartz, not intentionally added)	14808-60-7	0-1	0.025 mg/m^3 Respirable dust	2014 ACGIH TLV Handbook
Talc	14807-96-6	50-80	2.0 mg/m^3 Respirable dust 10.0 mg/m^3 Inhalable dust	2014 ACGIH TLV Handbook
Calcium carbonate	471-34-1	10-30	15 mg/m^3 total dust 5 mg/m^3 Respirable particles	2014 ACGIH Guide to Occupational Exposure Values
Sodium silicate	1344-09-08	0-6	Not available, recommend 2.0 mg/m^3 Respirable dust	
Engineering Measures	Use adequate dust collection to maintain dust levels below the control or recommended values.			
Respiratory Protection	Approved dust mask, type N95 recommended.			
Eye Protection	Conventional chemical goggles.			
Skin Protection	Conventional work gloves and clothing.			
Additional	May cause slip hazard when present on pedestrian surfaces.			

8.2 Exposure controls

8.2.1 Appropriate engineering controls: Use adequate dust collection to maintain dust levels below the control or recommended values.
8.2.2 Personal protective equipment 8.2.2.1 Eye/Face Protection: Wear laboratory goggles, or full side shielded safety glasses. 8.2.2.2 Skin Protection: Conventional work gloves and clothing. 8.2.2.3 Respiratory Protection: Approved dust mask, type N95 recommended.
8.2.3 Environmental exposure controls: The sodium silicate portion of this mixture is caustic (strongly alkaline) and water soluble. Do not allow this mixture to enter waterways or ground water .

Section 9 – Physical and Chemical Properties

9.1 Information on basic physical and chemical properties

Color:	Red/tan powder	Material State	Solid, granular or powder
Odor	None		
Boiling Point:	NA	Melting Point	Above 500 C
Specific Gravity	Not available	Vapor Density	Not applicable
Vapor Pressure (mm Hg)	NA	% Volatile (By Wt.)	1-10% (non-hydrocarbon)
Solubility in Water	Partial solubility	Evaporation Rate:	Not applicable
pH	Above 8	Auto Ignition	Not applicable
Decomposition Temp	Above 450 C	Dust Explosion class	Non-combustible.
Flash Point	Not applicable. Solid, non-combustible substance.		

Section 10 – Stability and Reactivity

10.1 Reactivity	Non-reactive under ambient conditions.
10.2 .Stability	Stable. Will not polymerize or self react spontaneously.
10.3 Possibility of hazardous reactions	None known
10.4 Conditions to Avoid	May absorb moisture when atmospheric humidity level is elevated.
10.5 Incompatible materials	Not known
10.6 Hazardous products of decomposition	Not known
Flammable Limits (% by Vol.)	Non-combustible

Section 11 – Toxicological Information

11.1 Information on toxicological effects: Not available.

Note on Crystalline Silica: Prolonged and/or massive exposure to respirable crystalline silica-containing dust may cause silicosis, a nodular pulmonary fibrosis caused by deposition in the lungs of fine respirable particles of crystalline silica.

In 1997, IARC (the International Agency for Research on Cancer) concluded that crystalline silica inhaled from occupational sources can cause lung cancer in humans. However it pointed out that not all industrial circumstances, nor all crystalline silica types, were to be incriminated. *(IARC Monographs on the evaluation of the carcinogenic risks of chemicals to humans, Silica, silicates dust and organic fibres, 1997, Vol. 68, IARC, Lyon, France.)*

In June 2003, SCOEL (the EU Scientific Committee on Occupational Exposure Limits) concluded that the main effect in humans of the inhalation of respirable crystalline silica dust is silicosis. “There is sufficient information to conclude that the relative risk of lung cancer is increased in persons with silicosis (and, apparently, not in employees without silicosis exposed to silica dust in quarries and in the ceramic industry). Therefore preventing the onset of silicosis will also reduce the cancer risk…“ *(SCOEL SUM Doc 94-final, June 2003).*

Aspiration hazard: Solid substance. Based on available data the classification criteria are not met.

Section 11 – Toxicological Information, continued:

Symptoms related to the physical, chemical and toxicological characteristics:

In case of ingestion: The sodium silicate component of this mixture is highly irritating to gastrointestinal tract. Ingestion may result in ulceration or bleeding of the stomach.
In case of skin contact: The sodium silicate component of this mixture is highly alkaline and caustic. Contact with sodium silicate may cause symptoms that vary from minor to serious irritation.
.In case of inhalation: The sodium silicate component of this mixture is highly alkaline and caustic and as a result is highly irritating to mucous membranes and the respiratory tract in general. In situations of repeated excessive lung overload due to a high airborne concentration of particles of respirable size for extended periods of time pneumoconiosis may develop. See section 4 for first aid measures
In case of eye contact: The sodium silicate component of this mixture is highly alkaline and caustic and therefore may cause serious injury to eyes.

Section 12 – Ecological Information

12.1 Toxicity:	The sodium silicate component of this mixture is highly alkaline and caustic as should not be allowed to enter ground or surface waters.
12.1.1 Aquatic Toxicity: No information is available.	
12.1.2 Sediment toxicity: None known.	
12.1.3 Terrestrial toxicity: None known.	
12.2 Persistence and degradability: Information not available.	
12.3 Bioaccumulation potential: There is no evidence indicating that Marcote#7 is bioaccumulative.	
12.4 Soil Mobility: The sodium silicate fraction of this mixture is water soluble and as a result can move through soil via solution. The other components of the mixture are insoluble and therefore will not exhibit soil or ground water mobility	
12.5 PBT and vPvB assessment: Marcote#7 is not a persistent bioaccumulative and toxic substance.	
12.6 Other adverse effects: None known. Marcote#7 has no ozone depleting potential.	

Section 13 – Disposal Considerations

Dispose of in a manner which conforms to local, state and Federal regulations. Packaging should be completely emptied of contents and disposed of in a manner specified by the recycler/regional disposal contractor. Dust formation from packaging residues should be avoided. Store empty packaging in a suitable receptacle

Section 14 – Transport Information

14.1 UN Number	Not applicable
14.2 UN Proper shipping name	Not applicable
14.3 Transport hazard class	Not applicable
14. 4 Packing Group	Not applicable
14.5 Environmental hazards	None known
Marine Transport	Not classified as a hazardous material
Land Transport	Not classified as a hazardous material
Air Transport	Not classified as a hazardous material
Transport Label Required	No label required

Section 15 – Regulatory Information

15.1 Regulatory Status and Inventories:

Not Classified	Added Ingredients			
Inventory Information:	Iron Oxide	Sodium Silicate	Talc	Calcium Carbonate
EEC EINECS	215-168-2	215-687-4	238-877-9	207-439-9
US TSCA	Yes	Yes	Yes	Yes
Canada DSL	Yes	Yes	Yes	Yes
Canada NDSL	No	No	No	No
Australian AICS	Yes	Yes	Yes	Yes
Korean ECL	Yes	Yes	Yes	Yes
Asia PAC	No	No	Yes	Yes
Swiss Giftliste	Yes	Yes	Yes	Yes
Japan ENCS	Yes	Yes	Not known	Yes
China IECSC	Yes	Yes	Not known	Not known
PICCS	Yes	Yes	Yes	Yes
New Zealand NZLoC	Yes	Yes	Yes	Yes
Mexico INSQ	Yes	Yes	Not known	Not known

Section 16 – Other Information

Abbreviations which may be used:

ACGIH TWA	American Council of Government and Industrial Hygienists Time Weighted Average value.
CAS	Chemical Abstracts Service
NA	Not applicable
N.O.S.	Not otherwise specified
BW	Body weight