ASBURY CARBONS **Safety Data Sheet**

Borokote 1

Revision Date August 17, 2016

1. Product and Company Identification

Product Information	
Trade Name	Borokote 1
Product Description	Water-based boron nitride coating
Recommended Uses	Lubricant, protective coating
Company	Southwestern Graphite, Inc. (a division of Asbury Carbons Inc.) 2564 Highway 12 DeQuincy, LA 70633
Emergency Telephone	US: 1-800-255-3924; International: +01-813-248-0585; China: 400-120-0751; Brazil: 0-800-591-6042; India: 000-800-100-4086; Mexico: 01-800-099-0731 ChemTel contract number: MIS0001931 (collect calls accepted)
Information Phone	1-908-537-2155
Website	www.asbury.com

2. Hazards Identification

Classification	Skin Irritant – Category 2 Eye Irritant – Category 2
Hazard Summary	Alkaline. Irritating to eyes and skin. Spilled material is slippery.
Labeling	
Hazard Pictogram(s)	
Signal Word(s)	Warning
Hazard Statement(s)	H315: Causes skin irritation. H319: Causes serious eye irritation.
Precautionary Statement(s)	P262: Do not get in eyes, on skin, or on clothing. P280: Wear protective gloves/protective clothing/eye protection/face protection. P303+P361+P353: IF ON SKIN (or hair): Remove all contaminated clothing. Rinse skin with water/shower. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

3. Composition / Information on Ingredients

Components	CAS No.	EINECS No.	Weight %	Hazard Statement(s)
Water	7732-18-5	231-791-2	90%	--
Boron nitride	7782-42-5	10043-11-5	5-10%	--
Silicic acid, sodium salt	1344-09-8	215-687-4	1 - 5%	H315: Causes skin irritation. H319: Causes serious eye irritation.

4. First Aid Measures

Inhalation	Remove patient from exposure, keep warm and at rest. Obtain medical attention.
Skin Contact	Wash affected skin with plenty of water. If symptoms develop, obtain medical attention.
Eye contact	Irrigate with eyewash solution or clean water, holding the eyelids apart, for at least 15 minutes. Obtain immediate medical attention.

Ingestion	Do not induce vomiting. Wash out mouth with water and give 200-300 ml (half a pint) of water to drink. Obtain medical attention.

5. Fire Fighting Measures

Graphite is not flammable under normal conditions	
Extinguishing media	Dry chemical extinguisher, water, sand, limestone powder
Special fire hazards	None known.
Products of Combustion	Carbon dioxide (CO2), carbon monoxide (CO).
Advice for Fire Fighters	Use self contained air pack, gloves, safety goggles
NFP Rating	110

6. Accidental Release Measures

Personal precautions	Wear approved dust mask, safety goggles or face shield, and suitable protective clothing. Graphite is electrically conductive and any cleanup methods should avoid contacting graphite with electrical circuitry.
Environmental precautions	Do not allow to enter drains, sewers or watercourses. Advise authorities if spillage has entered water course or sewer or has contaminated soil or vegetation.
Methods for cleaning up	Caution - spillages may be slippery. Contain spillages with sand, earth or any suitable adsorbent material. Transfer to a container for disposal or recovery.

7. Handling and Storage

Precautions for safe handling	Avoid contact with eyes, skin and clothing. Avoid generation of mist. Provide adequate ventilation. Emergency shower and eye wash facilities should be readily available. Graphite is a conductor of electricity. Avoid contact with electrical circuitry.
Fire and explosion protection	No special instructions - material is not combustible.
Storage precautions	Do not allow material to freeze. Keep container tightly closed. Provide an adequate bund wall. Unsuitable containers: aluminum.

8. Exposure Controls/ Personal Protection

Ingredients with control parameters / occupational exposure limits

Component	CAS No.	TWA	Control Reference
Water	7732-18-5	--	--
Boron nitride	10043-11-5	10 mg/m^3 4 mg/m^3	Total inhalable dust Respirable dust
Silicic acid, sodium salt	1344-09-8	2.0 mg/m^3	Recommended by analogy with sodium hydroxide.

Engineering controls	Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions.
Respiratory Protection	Use approved dust mask, type N95 recommended.
Eye Protection	Chemical goggles.
Skin Protection	Wear suitable protective clothing, gloves, and overalls. Plastic or rubber gloves.
Hygiene measures	Wear personal protective equipment. Do not eat, drink or smoke at the work place. Product spilled on pedestrian surfaces may pose a significant slip hazard.

9. Physical and Chemical Properties

Appearance	White liquid	**Lower explosion limit**	n/a
Odor	Mild	**Upper explosion limit**	n/a
pH	10.8 – 11.3	**Vapor pressure**	As water
Freezing point	32^{o}F (0^{o}C)	**Vapor density**	As water
Boiling point	212°F (100°C)	**Water solubility**	Dispersible
Flash point	n/a	**Partition coefficient: n-octanol/water**	No data available
Evaporation rate	As water	**Autoignition temperature**	No data available
Specific gravity	1.05 g/ml	**% volatile by weight**	90%

10. Stability and Reactivity

Chemical stability	Stable. Will not polymerize or self react spontaneously.
Possibility of hazardous reactions	When arc welding vessels containing aqueous solutions of this material, take care to control any explosion risk from hydrogen evolved by electrolysis. Aqueous solutions can react with aluminium, zinc, tin and their alloys evolving hydrogen gas which can form an explosive mixture with air.
Conditions to avoid	None known.
Materials to avoid	None known.
Hazardous decomposition products	None expected under conditions of normal storage.

11. Toxicological Information

Acute Toxicity:

Test (species)	Results	Remarks
Ingestion (rat)	LD50 3400 mg/kg bw Material will cause irritation.	All symptoms of acute toxicity are due to high alkalinity.
Inhalation (rat)	LC50 > 2000 mg/m3 Mist is irritant to the respiratory tract.	All symptoms of acute toxicity are due to high alkalinity.
Eye contact (rabbit)	Material will cause irritation.	
Skin contact (rat)	LD50 >5000 mg/kg bw Material will cause irritation.	
Sensitization (mouse)	Not sensitizing	

Chronic Toxicity:

Test (species)	Results	Remarks
Mutagenicity (in vitro)	Negative	No evidence of genotoxicity.
Carcinogenicity	Not carcinogenic	No structural alerts. IARC, NTP, OSHA, ACGIH do not list this product as known or suspected carcinogen.
Reproductive toxicity (rat)	NOAEL > 1000 mg/kg bw	OECD 422
STOT - single exposure	Not classified	
STOT - repeated exposure	Not classified NOAEL oral (rat) >159 mg/kg bw/d	

12. Ecological Information

Persistence and degradability	Graphite will not degrade under normal conditions. Graphite is stable, unreactive in water under ambient conditions, and is insoluble. Soluble silicates are inorganic and, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica.
Bioaccumulation potential	No evidence of bioaccumulation.
Mobility	Not expected to be mobile in soil.
Other effects	The alkalinity of this material may have a local effect on ecosystems sensitive to changes in pH.

Aquatic Toxicity:

Test	Effect dose	Exposure time	Method	Remarks
Acute fish toxicity	LC50 > 100 mg/l	96 hour	OECD 203	No adverse reaction observed.
Acute daphnia toxicity	EC50 > 100 mg/l	48 hour	OECD 202	No adverse reaction observed.
Acute algae toxicity	EC50 > 100 mg/l	72 hour	OECD 201	No adverse reaction observed.

13. Disposal Considerations

Material Disposal	Dispose of in a manner which conforms to local, state and national regulations. Product is non-hazardous but disposal of waste should be handled in a responsible matter.

Packaging Disposal	Packaging should be completely emptied of contents and disposed of in a manner specified by the recycler/regional disposal contractor.

14. Transport Information

UN number	Not regulated
Proper shipping name	n/a
Transport hazard class	n/a
Packing group	n/a
Marine pollutant?	Not classified as a marine pollutant

15. Regulatory Information

Inventory Information:	
US TSCA	Yes
Canada DSL	Yes
Canada NDSL	No
Australian AICS	Yes
Korean ECL	Yes
Asia PAC	Yes
Swiss Giftliste 1	Yes #G8422
IECSC	Yes
PICCS	Yes
New Zealand NZLoC	Yes

16. Other Information

The information contained herein is accurate to the best of our knowledge. Asbury Carbons makes no warranty of any kind, express or implied, concerning the safe use of this material in your process or in combination with other substances.

NFPA Classification	Health Hazard:	1
	Fire Hazard:	1
	Reactivity Hazard:	0