

# MATERIAL SAFETY DATA SHEET

In accordance with Hazard Communication standard 29 CFR 1910.1200

Version 1.0 Issue date: 22/04/2015

Revision date: 22/04/2015

## 1 PRODUCT AND COMPANY IDENTIFICATION

### 1.1 Product identifier:

Product name: SMC404

Identification of the product: See section 3

Identified uses: Brake pads.

### 1.2 Product supplier:

Hunan Boyun Automobile Brake Materials Co., Ltd.

No. 500 Lusong Road, Yuelu District, Changsha City, Hunan Province, China

Tel: + 86-731-88122568 Fax: +86-731-88115258

Email: xufei@boyunbrake.com

### 1.3 Emergency telephone Number: + 86-133-9751-5322

Available 24 hours?

YES

☐

NO

☒

## 2 HAZARDS IDENTIFICATION

### 2.1 Classification of the substance or mixture

#### 2.1.1 GHS Classification:

GHS	
Hazard classes/Hazard categories	Hazard statement
N/A	N/A

#### 2.1.2 Label elements

**Hazard Pictograms:** No hazard pictogram is used.

**Signal Word(S):** No signal word is used.

**Hazard Statement:** Not applicable.

**Precautionary Statement:** Not applicable.

#### 2.1.3 HMIS Classification

**Health hazard:** 0

**Flammability:** 1

**Physical hazard:** 1

#### 2.1.3 NFPA Rating

**Health hazard:** 0

**Fire:** 1

**Reactivity hazard:** 1

### 2.2 Potential health hazards

The product is not classified as harmful to human health effect.

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Mixture:** Mixture

**Ingredient(s):**

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Substance Name	CAS#	EC#	% by weight	Classification
Phenolic resin	9003-35-4	500-005-2	5-9%	N/A
NBR	9003-18-3	N/A	3-8%	N/A
Steel fiber	12597-69-2	N/A	20-30%	N/A
PAN fiber	N/A	N/A	3-8%	N/A
Ceramic fiber	65997-17-3	266-046-0	8-20%	N/A
Antimony trisulfide	1345-04-6	215-713-4	3-5%	N/A
Graphite	7782-42-5	231-955-3	6-10%	N/A
Friction powder	N/A	N/A	4-10%	N/A

## 4 FIRST AID MEASURES

### 4.1 Description of first aid measures:

#### 4.1.1 In case of inhalation:

No hazard in normal industrial use. If exposed to fumes from overheating, move to fresh air. Consult a physician if symptoms persist.

#### 4.1.2 In case of skin contact:

It is not likely to be hazardous by skin contact, but cleansing the skin after use is advisable.

#### 4.1.3 In case of eyes contact:

If dust/fumes get in eyes, immediately flush with large amounts of running water for several minutes. Consult a physician if necessary.

#### 4.1.4 In case of ingestion:

Not an expected route of entry with normal use of this product. No first aid is needed.

### 4.2 Most important symptoms and effects, both acute and delayed

The product is not classified as harmful to human health effect.

### 4.3 Indication of any immediate medical attention and special treatment needed

Not available.

## 5 FIRE-FIGHTING MEASURES

### 5.1 Extinguishing media:

Suitable extinguishing media: Use fire fighting methods and materials that are appropriate for surrounding fire. Use water spray or mist, dry chemical, foam or CO<sub>2</sub>.

Unsuitable extinguishing media: N/A.

### 5.2 Special hazards arising from the substance or mixture

During combustion, smoke may contain carbon dioxide, carbon monoxide.

### 5.3 Advice for fire-fighters:

As in any fire, wear self-contained breathing apparatus pressure-demand. MSHA/NIOSH (approved or equivalent) and full protective gear.

## 6 ACCIDENTAL RELEASE MEASURES

### 6.1 Personal precautions, protective equipment and emergency procedures:

No specific usage precautions required. Keep good personal precautions. Keep products and raw

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materials are managed and stacked orderly. Work well in cleaning procedures for products and waste. Observe good industrial hygiene practices. Use personal protective equipment recommended in Section 8.

## 6.2 Environmental precautions:

No special environmental precautions required.

## 6.3 Methods for containment and cleaning up:

If spilt (bulk), keep damp with water spray to avoid generating dust. For large spills, remove spilled material with mechanical equipment (eg. front end loader, etc).

## 6.4 Reference to other sections:

Refer to section 8 of the SDS.

## 6.5 Additional information:

Not available.

# 7 HANDLING AND STORAGE

## 7.1 Precautions for safe handling:

### 7.1.1 Protective measures:

No special measures necessary if stored and handled as prescribed. Handle in accordance with good industrial hygiene and safety practices. Prevent formation of dust.

### 7.1.2 Advice on general occupational hygiene:

Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas.

## 7.2 Conditions for safe storage, including any incompatibilities:

Normal storage principles should be applied when storing and stacking rolls. Store at room temperature. Store in a dry place away from excessive heat and sources of ignition.

## 7.3 Specific end use(s):

Not available.

# 8 EXPOSURE CONTROL/PERSONAL PROTECTION

## 8.1 Control parameters:

### 8.1.1 Occupational exposure limits:

Antimony trisulfide(CAS# 1345-04-6): The 8-Hour TWA Exposure Value is: 0.5 mg/m<sup>3</sup>.

Graphite, natural respirable dust (CAS# 7782-42-5): The 8-Hour TWA Exposure Value is: 2.5 mg/m<sup>3</sup>.

Graphite, synthetic, respirable fraction (CAS# 7782-42-5): The 8-Hour TWA Exposure Value is: 5 mg/m<sup>3</sup>.

Graphite, synthetic, total dust (CAS# 7782-42-5): The 8-Hour TWA Exposure Value is: 10 mg/m<sup>3</sup>.

### 8.1.2 Additional exposure limits under the conditions of use: Not available.

### 8.1.3 DNEL/DMEL and PNEC-Values: Not available.

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## 8.2 Exposure controls

### 8.2.1 Appropriate engineering controls:

No special ventilation requirements for product as solid. Provide adequate ventilation to meet exposure guideline if fabrication operations generate dust or fumes.

### 8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection: Generally does not require special eye protection equipment. In the process, it is recommended to wear safety glasses.

Hand protection: No special requirements under ordinary conditions of use. Maintain good industrial hygiene and always wash hands after use.

Body protection: Overalls general operations are recommended when handling this product.

Respiratory protection: Not required under normal conditions of use.

### 8.2.3 Environmental exposure controls:

Avoid discharge into the environment.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance:	Solid, brake pads
Colour:	Grey - black
Odour:	Odorless
Odour threshold:	No data available
pH:	No data available
Melting point/range :	> 600 °C(CAS#7782-42-5)
Boiling point/range (°C) :	No data available
Flash point (°C) :	No data available
Evaporation rate:	No data available
Flammability (solid, gas):	Not a highly flammable solid (CAS#7782-42-5)
Ignition temperature (°C) :	No data available
Upper/lower flammability/explosive limits:	No data available
Vapour pressure (20°C) :	No data available
Vapour density:	No data available
Density (25°C):	2.2136 g/cm <sup>3</sup> (CAS#7782-42-5)
Water solubility (g/l) at 20°C :	Slightly soluble(CAS#7782-42-5)
n-Octanol/Water (log Po/w) :	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
Viscosity, dynamic (20 °C) :	No data available
Molecular Formula:	Mixture (Not applicable)
Molecular Weight:	Mixture (Not applicable)

### 9.2 Physical hazards:

Not classified.

### 9.3 Other information:

Fat solubility(solvent– oil to be specified) etc	Not available
Bulk Density:	Not available

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Dissociation constant in water( pKa):	Not available
Oxidation-reduction Potential:	Not available
Specific Gravity(water=1.0):	No data available

## 10 STABILITY AND REACTIVITY

### 10.1 Reactivity:

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability:

Stable under normal temperatures and pressures.

### 10.3 Possibility of hazardous reactions:

No dangerous reactions known.

### 10.4 Conditions to avoid:

Incompatible materials. No specific data available for this product. However, it is recommended that pressure and physical stress be avoided.

### 10.5 Incompatible materials:

Not available.

### 10.6 Hazardous decomposition products:

Not available.

## 11 TOXICOLOGICAL INFORMATION

### 11.1 Toxicokinetics, metabolism and distribution

Not available.

### 11.2 Information on toxicological effects

Acute toxicity:

Graphite (CAS#7782-42-5)

LD50 (Oral, Rat): > 2000 mg/kg bw

LD50 (Dermal, Rabbit): Not available

LC50 (Inhalation, Rat): > 2000 mg/m<sup>3</sup> air 4h

Skin corrosion/Irritation: No data available.

Serious eye damage/irritation: No data available.

Respiratory or skin sensitization: No data available.

Germ cell mutagenicity: No data available.

Carcinogenicity: No data available.

Reproductive toxicity: No data available.

STOT- single exposure: No data available.

STOT-repeated exposure: No data available.

Aspiration hazard: No data available.

## 12 ECOLOGICAL INFORMATION

### Toxicity:

Ceramic fiber(CAS#65997-17-3)

Acute toxicity	Time	Species	Method	Evaluation	Remarks
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LC50	> 1000 mg/L	96h	Fish	OECD 203	N/A	N/A
EC50	N/A	48h	Daphnia	OECD 202	N/A	N/A
EC50	> 1000 mg/L	72h	Algae	OECD 201	N/A	N/A

Graphite (CAS#7782-42-5)

<b>Acute toxicity</b>	<b>Time</b>	<b>Species</b>	<b>Method</b>	<b>Evaluation</b>	<b>Remarks</b>
LC50	> 100 mg/L	96h	Fish	OECD 203	N/A
EC50	> 100 mg/L	48h	Daphnia	OECD 202	N/A
EC50	> 100 mg/L	72h	Algae	OECD 201	N/A

**Persistence and degradability:** No data available.

**Bioaccumulative potential:** No data available.

**Mobility in soil:** No data available.

**Results of PBT&vPvB assessment:** No data available.

**Other adverse effects:** No data available.

## 13 DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

Contact a licensed professional waste disposal service. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Contaminated packing must be emptied of all residues and, following appropriate cleaning, may be sent to a recycling plant. Uncleaned packaging must be disposed of in the same manner.

## 14. TRANSPORT INFORMATION

	<b>Land transport (ADR/RID)</b>	<b>Sea transport (IMDG)</b>	<b>Air transport (ICAO/IATA)</b>
<b>UN-Number:</b>	Not regulated	Not regulated	Not regulated
<b>UN Proper shipping name:</b>	Not regulated	Not regulated	Not regulated
<b>Transport hazard Class:</b>	Not regulated	Not regulated	Not regulated
<b>Packaging group:</b>	Not regulated	Not regulated	Not regulated
<b>Environmental hazards:</b>	No	No	No
<b>Special precautions for user:</b>	See section 2.2	See section 2.2	See section 2.2
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	Not regulated	Not regulated	Not regulated

## 15 REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

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## US federal regulations

**Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number**

Not listed

**Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))**

Not regulated.

**DEA Exempt Chemical Mixtures Code Number**

Not regulated.

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

**CERCLA (Superfund) reportable quantity**

Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

**Hazard categories**

Immediate Hazard - No

Delayed Hazard - No

Fire Hazard - No

Pressure Hazard - No

Reactivity Hazard - No

**Section 302 extremely hazardous substance**

No

**SARA 311/312 Hazardous chemical**

No

## Inventory status

**Country(s) or region**

United States & Puerto Rico

**Inventory name**

Toxic Substances Control Act (TSCA) Inventory

**On inventory (yes/no)\***

No

## US state regulations

**US - New Jersey RTK - Substances: Listed substance**

Graphite (CAS 7782-42-5)

Listed.

**US. Massachusetts RTK - Substance List**

Graphite (CAS 7782-42-5)

**US. Pennsylvania RTK - Hazardous Substances**

Graphite (CAS 7782-42-5)

Listed.

**US. Rhode Island RTK**

Not regulated.

## 16 OTHER INFORMATION

### 16.1 Indication of changes

Revised in accordance with Hazard Communication standard 29 CFR 1910.1200.

### 16.2 Legal Disclaimer:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The company shall not be held liable for any damage resulting from handling or from contact with the above product.

- End -