MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	**BS-1C series (**Rheology Modifier) (Organoclay)
Version #	03
Revision date	Dec-21-2014
Manufacturer/	Zhejiang Fenghong New Material Co.,Ltd
Supplier information	No. 68 Huaqiao Rd, Lin'an city, Zhejiang,China.
	bentonite@zjfhht.com
	www.zjfenghong.com
	Customer Service (8 a.m.– 5 p.m. CCT): (86)0571-63806068
	Fax&Tel: (86)0571-63751569
	National Chemical Accident Emergency Telephone Number
	Qing Dao China:0532-83889090
Product use	**BS-1C series** organic bentonite used as thickener, anti-settling agent and rheological agent widely employed in the field of mixed paint, floor paint, putty, marine paint, primer paint, anti-corrosion paint, adhesive glue, seal gum, printing ink,grease and so on.

2. Hazards Identification

Emergency overview	Product may form explosive dust/air mixtures if high concentration of product dust is suspended in air. Material can be slippery when wet. Harmful in contact with eyes. Cancer hazard. Prolonged exposure may cause chronic effects.
Potential health effects	
Routes of exposure	Inhalation. Eye contact.
Eyes	Contact may irritate or burn eyes. Eye contact may result in corneal injury. Do not get this material in contact with eyes.
Skin	Avoid contact with the skin.
Inhalation	Inhalation of dusts may cause respiratory irritation. May cause cancer by inhalation. Do not breathe dust. Repeated or prolonged inhalation may cause toxic effects. For additional information on inhalation hazards.
Ingestion	Do not ingest.
Target organs	Eyes. Respiratory system.
Chronic effects	Conjunctiva. This product has the potential for generation

	of respirable dust during handling and use. Dust may contain respirable crystalline silica. Overexposure to dust may result in pneumoconononiosis, a respiratory disease caused by inhalation of mineral dust, which can lead to fibrotic changes to the lung tissue, or silicosis, a respiratory disease caused by inhalation of silica dust, which can lead to inflammation and fibrosis of the lung tissue. Occupational exposure to respirable dust and respirable crystalline silica should be monitored and controlled.
Signs and symptoms	Corneal damage. Conjunctivitis.
Potential environmental effects	Ecological injuries are not known or expected under normal use.

3.Composition / Information on Ingredients

Chemical Composition: Alkyl Quaternary Ammonium Bentonite		
Hazardous components	**CAS#**	**Percent**
Quartz	14808-60-7	1-3
Non-hazardous components	**CAS#**	**Percent**
Bentonite	1302-78-9	63-67
Octadecyl trimethyl ammonium chloride	112-03-8	30-34

4. First Aid Measures

Skin contact	Remove and isolate contaminated clothing and shoes. Wash off with warm water and soap. For minor skin contact, avoid spreading material on unaffected skin. Get medical attention if symptoms occur.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Inhalation	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician if symptoms develop or persist.
Ingestion	Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If ingestion of a large amount does occur, call a poison control center immediately.

5.Fire Fighting Measures

Flammable properties	Dusts may form an explosive mixture with air. Take precautionary measures against static discharge
Extinguishing media	
Unsuitable extinguishing Media	Do not use water jet.
Protection of firefighters	
Specific hazards arising from the chemical	Not a fire hazard. The product itself does not burn. Material can be slippery when wet.
Protective equipment and precautions for firefighters	Use any media suitable for the surrounding fires. Not a fire hazard.

6.Accidental Release Measures

Personal precautions	Local authorities should be advised if significant spillages cannot be contained. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unnecessary personnel away. Stay upwind. Keep out of low areas. Avoid inhalation of dust from the spilled material. Wear a dust mask if dust is generated above exposure limits.
Environmental precautions	Do not flush into surface water. Do not let product enter drains. Prevent further leakage or spillage if safe to do so.
Methods for containment	Prevent entry into waterways, sewers, basements or confined areas. Avoid allowing water runoff to contact spilled material. If sweeping of a contaminated area is necessary use a dust suppressant agent which does not react with the product. Contaminated surfaces will be extremely slippery.
Methods for cleaning up	Sweep up or gather material and place in appropriate container for disposal. Collect dust or particulates using a vacuum cleaner with a HEPA filter. Avoid dust formation.

7.Handling and Storage

Handling	Do not get this material in contact with eyes. Do not breathe dust from this material. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin. Keep formation of airborne dusts to a minimum. Provide appropriate exhaust ventilation at places where dust is formed. In case of insufficient ventilation, wear suitable respiratory equipment. Wear personal

protective equipment. Avoid prolonged exposure. Wash thoroughly after handling. Handle and open container with care.

Storage Guard against dust accumulation of this material. Keep in a well-ventilated place. Keep container tightly closed. Keep out of the reach of children. Use care in handling/storage.

8.Exposure Controls / Personal Protection

Exposure Limit No exposure limits is listed for this product. But nuisance dust limits can be used for this product.

Composition Nuisance dust

- TLV-TWA 10mg/m^3(ACGIH, total)
- TLV-TWA 3mg/m^3(ACGIH, respirable fraction)
- PEL-TWA 15mg/m^3(OSHA, total)
- PEL-TWA 5mg/m^3(OSHA, respirable fraction)

Exposure guidelines Occupational exposure to nuisance dust (total and respirable) and re spirable crystalline silica should be monitored and controlled.

Engineering controls Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing. Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits. If material is ground, cut, or used in any operation which may generate dusts, use appropriate local exhaust ventilation to keep exposures below the recommended exposure limits. If engineering measures are not sufficient to maintain concentrations of dust particulates below the OEL, suitable respiratory protection must be worn.

Personal protective equipment

Eye / face protection Wear safety glasses with side shields.

Skin protection Protective gloves.

Respiratory protection Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection.

General hygiene considerations Do not breathe dust. Avoid contact with eyes. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9.Physical & Chemical Properties

Physical state Soild.

Form Powder.

Color Off-white.

PH Not available.

Boiling point Not applicable

Melting point Not applicable

Freezing point	Not applicable
Flash point	Not applicable.
Explosion Limits[%(V/V)]	Not applicable.
Vapor pressure	Not applicable.
Specific gravity	1.70
Solubility (water)	Partly soluble.

10.Chemical Stability & Reactivity Information

Chemical Stability	Stable in closed containers under normal conditions.
Conditions to Avoid	Incompatible materials, dust generation, exceed heat, open flames, exposure to moist air or water.
Incompatibilities with Other Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Decomposition will not occur if handled and stored properly. In case of a fire, oxides of carbon, hydrocarbons, alkyl chlorides, fumes, and smoke may be generated by thermal decomposition or combustion.
Hazardous Polymerization	Will not occur.

11.Toxicological Information

Toxicological Information	Composition:CAS# 1302-78-9 RTECS# CT9450000 Composition:CAS# 112-03-8 RTECS# BT1750000 LD50:536 mg/kg (oral,mouse) LD50:1600 mg/kg (Skin,mouse)
Carcinogenicity	Composition:CAS# 14808-60-7 1Human carcinogen(IARC overall evaluation) Group A2 Suspected human carcinogen(US ACGIH evaluation) Known carcinogen(NTP evaluation) Composition:CAS# 1302-78-9 Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65. Composition:CAS# 112-03-8 Not listed as a carcinogen by ACGIH, IAR, NTP, or CA Prop 65.
Sensitization Rate	Not available.
Teratogenicity	Not available.

12.Ecological Information

Ecological Toxicity	Not available.
Ecological Degradation	Not available.
Biology Degradation	Not available.
Bioaccumulative potential	Not available.
Other Information	Avoid directly release to the environment.

13.Disposal Considerations

Disposal instructions	This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Not applicable.

14.Transport Information

Not regulated as a hazardous material for transportation.(TDG; IMDG; CODE; IATA DGR)

UN Number	N/A
UN Proper Shipping Name	N/A
UN Classification	N/A
Packing Group	N/A
Packaging Sign	N/A
Transport Fashion	Cargo by air, by sea, by rail, by road.
Shipping Notice	Keep a complete package. Handle with care. The transport vehicles should be equipped with the corresponding species and quantity of fire equipment and leakage emergency equipment. During transport, the containers should be ensured that do not leak, collapse, fall or damaged. Keep away from sunshine, rain, water, and high temperature.

15.Regulatory Information

Regulatory Information: Reference to the local, national, US, EU, CA and international regulations.

TSCA	CAS# 14808-60-7 and CAS# 1302-78-9 and CAS# 112-03-8 are listed.
DSL	CAS# 14808-60-7 and CAS# 1302-78-9 and CAS# 112-03-8 are listed.
OSHA	CAS# 14808-60-7 and CAS# 1302-78-9 and CAS# 112-03-8 are unlisted.
California Prop 65	CAS# 14808-60-7 and CAS# 1302-78-9 and CAS# 112-03-8 are unlisted.
IECSC	CAS# 14808-60-7 and CAS# 1302-78-9 and CAS# 112-03-8 are listed.

European Labeling in Accordance with EC Directives:

Hazard Symbols:

Xn: Harmful.

Risk Description:

R 22: Harmful if swallowed.

R 36/37/38: Irritating to eyes, respiratory system and skin.

Safety Description:

S 2: Keep out of reach of children.

S 25: Avoid contact with eyes.

S 26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36/37: Wear suitable protective clothing and gloves.

16.Additional Information

Recommended restrictions	Workers (and your customers or users in the case of resale) should be informed of the potential presence of respirable dust and respirable crystalline silica as well as their potential hazards. Appropriate training in the proper use and handling of this material should be provided as required under applicable regulations.
NFPA ratings	Health: 1 Flammability: 1 Instability: 0
Issue date	Dec-21-2014

Final determination of suitability of any material is the sole responsibility of the user.

All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, We cannot guarantee that these are the only hazards that exist.

Other Information:

ACGIH: American Conference of Governmental Industrial Hygienists;
CAS: Chemical Abstracts Service;
DSL: The Domestic Substances List of Canada;
EC: European Commission;
IARC: Internation Agency for Research on Cancer;
IATA: International Air Transport Association;
IECSC: Inventory of Existing Chemical Substances in China;
IMDG: International Maritime Dangerous Goods;
LD50: Lethal dose, 50 percent Kill;
NTP: US National Toxicology Program;
OSHA: US Occupational Safety and Health;
PC-STEL: Permissible concentration-time weighted average;
PC-TWA: Permissible concentration-short time exposure limit;
PEL: Permissible Exposure Level;
RTECS: Registry of Toxic Effects of Chemical Substances;
TDG: Recommendations on the TRANSPORT OF DANGEROUS GOODS MODEL Regulations;
TSCA: Toxic Substances Control Act of USA;
TWA: Time Weighted Average;
TLV: Threshold Limit Value;