Safety Data Sheet
BXPA-6

ACCREDITED
CERTIFICATE #4015.01

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1 – MATERIAL AND COMPANY IDENTIFICATION	
CRM code	BXPA-6
CRM name	Bauxite (Trombetas, Pará)
Product intended use	This certified reference material (CRM) is intended for use in calibration of a measurement system, assessment of a measurement procedure, quality control and value assignment to materials with similar matrices. A unit of BXPA-6 consists of 110 g of powdered ore packaged in a glass bottle.
Producer information	**Center for Mineral Technology - CETEM** Certified Reference Material Program - PMRC Av. Pedro Calmon, 900 – Ilha da Cidade Universitária 21941-908 – Rio de Janeiro – RJ Brazil Telephone / Fax: 55 21 3865-7310 / 55 21 2290-9196 E-mail: pmrc@cetem.gov.br Website: http://www.cetem.gov.br/crm
2 – HAZARDS IDENTIFICATION	
Classification:	
▪ Physical harzard	Not classified.
▪ Health harzard	Not classified.
Label elements:	Not applicable.
▪ Symbol	No symbol or pictogram.
▪ Signal word	No signal word.
▪ Harzard statement(s)	Not applicable.
▪ Precautionary statement(s)	Not applicable.
▪ Hazards not otherwise classified	Not applicable.
▪ Ingredients with unknown acute toxicity	Not applicable.
3 – COMPOSITION AND INFORMATION ON INGREDIENTS	
Substance/Mixture	Bauxite
Other designation	Aluminum oxides and hydroxides - $Al_2O_3.X(H_2O)$
Component	The major mineral is gibbsite (> 90%). Kaolinite, hematite and goethite were identified as minor minerals. Anatase, quartz, boehmite, zircon, diaspore, ilmenite and muscovite were detected as trace minerals.
CAS N°	1318-16-7

The Certificate of Analysis reports the concentrations of the individual constituents as oxides. The oxides are not freely available in the material as sold. The health and safety information provided in this SDS are for bauxite, not for its individual constituents. This material does not contain free crystalline silica, quartz; silicon oxide is present but in form of silicates.

4 – FIRST AID MEASURES	
Description of first aid measures:	
▪ Inhalation	If adverse effects occur, remove to uncontaminated area. If not breathing, give artificial respiration or oxygen by qualified personnel. Seek immediate medical attention.
▪ Skin contact	Wash skin with soap and water.
▪ Eye contact	Flush eyes with water for at least 15 minutes. If necessary, seek medical attention.
▪ Ingestion	If adverse effects occur after ingestion, seek medical treatment.
Most important symptoms and effects, acute and delayed	Exposure may cause mechanical irritation.
Indication of any immediate medical attention and special treatment needed, if necessary	If any of the above symptoms are present, seek medical attention if needed.
5 – FIRE FIGHTING MEASURES	
Fire and explosion hazards	Negligible fire hazard. Avoid generating dust. The material is not flammable, explosive or combustible.
Extinguishing media	Regular dry chemical, carbon dioxide, water, regular foam.
Specific hazards arising from the chemical	None listed.
Special protective equipment and precautions for fire-fighters	Avoid inhalation of material or combustion byproducts. Wear full protective clothing and a self-contained breathing apparatus.
6 – ACCIDENTAL RELEASE MEASURES	
Personal precautions, protective equipment and emergency procedures	Any accumulated material on surfaces should be removed and properly disposed of. Use suitable personal protective equipment (see section 8).
Measures for environmental protection	Keep out of water supplies and sewers.
Methods and materials for containment and clean up	Collect spilled material in appropriate container for disposal. Keep unnecessary people away, isolate hazard area and deny entry.
7 – HANDLING AND STORAGE	
Safe handling precautions	Minimize dust generation and accumulation on surfaces. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Use suitable personal protective equipment (see section 8).
Storage	The material must be stored in its original package, at room temperature in a clean and dry place. The bottle must be opened only during sampling. Avoid contact with incompatible materials (see section 10).
8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION	
Exposure limits	No occupational exposure limits have been established for bauxite. This material is a particulate matter and adequate inhalation/respiratory protection should be used to minimize exposure. The exposure limits for Particulates Not Otherwise Regulated (PNOR) are applicable. OSHA (PEL) 15 mg/m^3 (TWA, total particulates not otherwise regulated); 5 mg/m^3 (TWA, respirable particulates not otherwise regulated).
Engineering controls	Provide local exhaust or process enclosure ventilation system. Ensure compliance with applicable exposure limits.
Personal equipment	Wear appropriate Personal Protective Equipment (PPE) to minimize exposure to this material.
Respiratory protection	If workspace conditions warrant respirator, wear adequate respirators against dust when handling the material.
Eye/face protection	Wear safety goggles with face shields. An eye wash station should be readily available near areas of use.

Skin and body protection	Personal protective equipment for the body should be selected on the task being performed and the risks involved. Chemical-resistant gloves should be worn at all times when handling chemicals.
9 – PHYSICAL AND CHEMICAL PROPERTIES	
Appearance	Powder / orange color.
Odor	Odorless.
pH	Not applicable.
Melting point / freezing point (°C)	Not available.
Initial boiling point and boiling range	Not applicable.
Flash point (°C)	Not available.
Evaporation rate	Not applicable.
Flammability	Not flammable.
Explosive limits (% volume)	Not available.
Vapor pressure	Not available.
Vapor density (air=1)	Not available.
Density (specific gravity)	2.55 g/cm^3
Solubility in water at 20°C	Insoluble.
Partition coefficient (n-octanol/water)	Not available.
Autoignition temperature	Not available.
Thermal decomposition	Not available.
Viscosity (cP)	Not applicable.
Radioactivity	Not available.
Nominal particle size	<0.150 mm.
10 – STABILITY AND REACTIVITY	
Reactivity	Non-reactive.
Chemical stability	Stable at normal temperatures and pressure.
Possible hazardous reactions	None listed.
Conditions to avoid	Avoid generating dust. Avoid heat, flames, sparks, and other sources of ignitions. Avoid contact with incompatible materials.
Incompatible materials	Bases, halogens, acids, metal salts, oxidizing materials, reducing agents and peroxides.
Hazardous products of decomposition	Thermal decomposition will produce miscellaneous compounds.
11 – TOXICOLOGIAL INFORMATION	
Route of exposure	Inhalation and skin.
Symptoms related to the physical, chemical and toxicological characteristics	May aggravate respiratory disorders.
Potential health effects (acute, chronic and delayed):	
▪ Inhalation	Irritation and difficulty breathing.
▪ Skin contact	May cause mechanical irritation.
▪ Eye contact	May cause irritation or eye damage.
▪ Ingestion	No data available on significant adverse effects.

Numerical measures of toxicity:	
▪ Acute toxicity	Not classified, no data available.
▪ Skin corrosion / irritation	Not classified, no data available.
▪ Serious eye damage / eye irritation	Not classified, no data available.
▪ Respiratory sensitization	Not classified, no data available.
▪ Skin sensitization	Not classified, no data available.
▪ Germ cell mutagenicity	Not classified, no data available.
▪ Carcinogenicity	Not classified, no data available.
▪ Listed as a carcinogen / potential carcinogen	Not listed.
▪ Reproductive toxicity	Not classified, no data available.
▪ Specific target organ toxicity, single exposure	Not classified, no data available.
▪ Specific target organ toxicity, repeated exposure	Not classified, no data available.
▪ Aspiration hazard	Not applicable.
12 – ECOLOGICAL INFORMATION	
Ecotoxicity Data	No data available.
Persistence and degradability	No data available.
Bioaccumulation potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No data available.
13 – DISPOSAL CONSIDERATIONS	
Waste disposal	Dispose of waste in accordance with local, state and federal regulations.
Disposal of empty packages	The empty package, after being thoroughly cleaned and decontaminated, may be reused or recycled.
14 – TRANSPORT INFORMATION	
Transportation requirements	The material is not regulated by national or foreign transportation requirements. The product is not classified as dangerous for transportation according to ABTLP, IMDG or IATA criteria. Classify the packaged as FRAGILE (glass bottle).
15 – REGULATORY INFORMATION	
Specific regulations	Not applicable.
16 – ADDITIONAL INFORMATION	

This SDS was prepared according to ABNT NBR 14725-4:2014 – Chemicals – Information about safety, health and environment. Part 4: Safety Data Sheet (SDS) for chemicals; and on the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) – 6ª ed.: UNO, 2015.

Key and Legend: CAS – Chemical Abstracts Service.

Disclaimer: This SDS provides information based on the current level of knowledge only for use in assessing the hazardous nature of the material and safety measures. The certified values for this material are given in the Certificate of Analysis.

Users of BXBA-3 certified reference material should ensure that the SDS in their possession is current. This can be accomplished by contacting CETEM: (55 21) 3865-7310, fax (55 21) 2290-9196, e-mail pmrc@cetem.gov.br; or downloading it from the website http://www.cetem.gov.br/mrc.