380 Stewart Road, Hanover Township, PA 18706-1459 USA
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Material Safety Datasheet

Report #: 05082023A

Product Name: KBS Power Solutions Alkaline Batteries,

AAA Prime, AAA MaxX, AA Prime, AA MaxX

Model: KA1100, KA1200, KA2500, KA2600

Manufacturer: KBS Power Solutions

Report Date: May 8, 2023

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SECTION 1 IDENTIFICATION OF PRODUCT	
Product Name	KBS Power Solutions Alkaline Batteries, AAA Prime, AAA MaxX, AA Prime, AA MaxX
Product Model	KA1100, KA1200, KA2500, KA2600
Manufacturer	KBS Power Solutions
Manufacturer Address	380 Stewart Road, Hanover Township, PA 18706, USA

SECTION 2 Composition/Information on Ingredients		
Hazardous Ingredient (Chemical Name)	Concentration or concentration range (%)	CAS Number
Graphite	2-6	7782-42-5
Manganese Dioxide	30-45	1313-13-9
Potassium Hydroxide	4-8	1310-58-3
Zinc	12-25	7440-66-6

Material or Ingredient	CAS #	Directive 2006/66/EC Limit (PPM)	PPM (by Wt.)
Mercury	7439-97-6	5	Not detected ($\leq$ 1ppm)
Cadmium	7439-92-1	20	Not detected (< 5ppm)
Lead	7440-43-9	40	Not detected (< 20ppm)

SECTION 3 Hazards Identification

General: Alkaline battery --- The commonly known rules for handing of chemical power source should be obeyed. Do not heat, recharge, disassemble the product or dispose of in fire.

Physical-Chemical Hazards: The chemical materials concluded in the Product is sealed up, thus being stable, safe and eco-friendly under common conditions, may not cause physical-chemical hazards.

Hazards to Human being: Disassemble the product without a professional basis, may cause leakage of the electrolyte and irritation to skin.

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Hazards to environment: Dispose the product without separate collection, may lead to pollution caused by Hg/ Cd/ Pb (micro trace), or by the electrolyte of alkaline solution.

SECTION 4 First Aid Measures

All chemicals within are sealed within batteries. In the event of exposure to battery damage, leakage or exhaust, follow first aid measures.

Inhalation: Not applicable.

Skin Contact: Wash with clean water immediately once leakage happens and the inner liquid splashes onto skin.

Eye contact: Rinse eyes immediately with running water for at least ten minutes. Consult an ophthalmologist.

Ingestion: Rinse mouth with water; Give plenty of water to drink. Obtain medical advice.

SECTION 5 Fire Fighting Measures

Suitable extinguishing media: Carbon dioxide (CO2), foam, dry chemical powder.

Extinguishing media not to be used: Never use a direct water jet, may pollute the water system.

Exposure hazards from combustion products: In case of fire, carbon monoxide or other toxic organic substances may be generated. Do not inhale fumes and smoke.

Personal protective equipment: Wear full protective clothing. Use self-contained breathing apparatus.

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SECTION 6 Accidental Release Measures

Personal precautions: Wear protective clothing. Keep unprotected persons away.

Environmental precautions: Avoid discharge and penetration into sewage systems, waterways, pits, and cellars.

Methods for cleaning up: Collect spilled material with an inert standard absorbent like sand or silica. Ensure adequate ventilation to area. Recycle or dispose of the materials in an appropriate way.

SECTION 7 Handling and Storage

General: Obey the commonly known rules and precautions for handling with chemical power sources.

Fire/Explosion protections: Explosion may happen if short-circuit; collect spilled material with an inert standard absorbent like sand or silica.

Storage: Store product in clean, cool and ventilated place with a temperature between 10℃ and 30℃ (no higher than 40℃ in normal conditions) and a relative humidity no higher than 65%; the storage time should minimized; the batteries should be well-arranged to avoid short-circuit caused by the contact of the positive and negative electrodes.

SECTION 8 Exposure Controls/Personal Protection

Maximum allowable concentration: Undefined

Engineering Controls: No engineering controls required for handling batteries that are in undamaged condition. Personal protective equipment for damaged batteries should include chemical resistant gloves and safety glasses.

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SECTION 9 Physical and Chemical Properties	
Information related to basic physical and chemical properties	
Appearance	Graphic labeled with KBS Power Solutions artwork
Form	Generally Cylindrical
Odor	Odorless

SECTION 10 Stability and Reactivity

The chemical materials included in the product are sealed within, thus being stable and safe under normal conditions.

SECTION 11 Toxicological Information

The product is multi-component mixture for which no toxicological data exists.
Precautions avoid disassembling the product without a professional basis.

SECTION 12 Ecological Information

In general, no ecological data is available for preparations.
Precautions avoid disposing into drainage systems and into the environment.

SECTION 13 Disposal

Precautions avoid disposing waste products into environment, sewerage, landfills or by incineration.
Obey the rules and precautions for separate collection and recycling of the waste products.

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SECTION 14 Transportation

In general, all batteries in all forms of transportation (ground, air, or ocean) must be packaged in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require that batteries be packaged in a manner that prevents short circuits and be contained in "strong outer packaging" that prevents spillage of contents. All original packaging for our alkaline battery product has been designed to be compliant with these regulatory concerns.

Alkaline batteries (sometimes referred to as "Dry battery" or "Dry cell" batteries) are not listed as dangerous goods under the ADR European Agreement Concerning the International Carriage of Dangerous Goods by Road, the IMDG International Maritime Dangerous Goods Code, UN Dangerous Good Regulations, IATA Dangerous Goods Regulations (IATA DGR) (64th), ICAO Technical Industrial and the U.S hazardous materials regulations (49 CFR)

The batteries are not subject to the dangerous goods regulations provided they meet the requirements contained in the following special provisions:

ADR: Not regulated
IMDG: Not regulated
UN: Not regulated
US DOT: 49 CFR 172.102 Provision 130
IATA: A123 (not regulated)
ICAO: Not regulated

All our alkaline battery products are packed in such a way to prevent short circuits or the generation of dangerous quantities of heat and meet the special provision listed above. In addition, the IATA Dangerous Goods Regulations and ICAO Technical Instruction require the words "not restricted" and the Special Provision number A123 be provided on the air waybill, when an air waybill is issued.

SECTION 15 Regulation Information

Symbol: for transportation, collection, or environment protection (stipulated respectively by each contract).

Contains: transportation marks; "separate collection" symbol; "RoHS" symbol (maybe), etc.

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SECTION 16 Other Information

The information on this Material Safety Data Sheet (MSDS) was obtained from current and reputable sources. For any other questions, please contact the manufacturer for further information.

Photo Samples