

# SDS


## SAFETY DATA SHEET

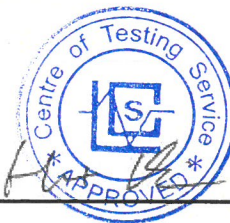
**Prepared For** : Shenzhen Kejinming Electronic Co.,Ltd  
4/F, Building B, Yongli Industry Centre, Gushu Village, Xixiang Town,  
Bao'an District, Shenzhen, P.R.C.

**Prepared By** : Shenzhen LCS Compliance Testing Laboratory Ltd.  
Xingyuan Industrial Park, Tongda Road, Bao'an Avenue, Bao'an  
District, Shenzhen, Guangdong, China

**Issue Date** : 2018.11.23  
**Report Number** : LCS181106095ASD

**Written by:** Gloria Gan

**Approved by:** 



# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

\* The SDS is prepared based on the information provided by client. The contents and formats of this SDS are revised as per client's request.

## Section 1- Identification

### (a) Product identifier

Product name AAA alkaline battery

### (b) Other means of identification

Product description Model: AAA LR03 1.5V  
Nominal Voltage: 1.5V  
Weight: 11.4g

### (c) Recommended use of the chemical and restrictions on use

Recommended use Alkaline Battery

Uses advised against No information available.

### (d) Details of the supplier of the safety data sheet

Supplier Name Shenzhen Kejinming Electronic Co.,Ltd

Supplier Address 4/F, Building B, Yongli Industry Centre, Gushu Village, Xixiang Town, Bao'an District, Shenzhen, P.R.C.

Manufacture Company Shenzhen Kejinming Electronic Co.,Ltd

Manufacture Address 4/F, Building B, Yongli Industry Centre, Gushu Village, Xixiang Town, Bao'an District, Shenzhen, P.R.C.

Supplier Phone Number +86-755-27489177

### (e) Emergency telephone number

+86-755-27489177

## Section 2- Hazards Identification

### (a) Classification

Acute toxicity-Oral Category 4

Acute toxicity-Inhalation (Vapors) Category 4

Acute toxicity-Inhalation (Dusts/Mists) Category 4

Skin corrosion/Irritation Category 1 Sub-category A

Serious eye damage/eye irritation Category 1


### (b) GHS Label elements, including precautionary statements

Emergency Overview

# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

Signal word	Danger	
<b>Hazard Statements</b> Harmful if swallowed Harmful if inhaled Causes severe skin burns and eye damage 		
<b>Appearance:</b> No information available	<b>Physical State:</b> Solid	<b>Odor:</b> No information available
<b>Precautionary Statements-Prevention</b>	Wash face, hands and any exposed skin thoroughly after handling Do not eat, drink or smoke when using this product Use only outdoors or in a well-ventilated area Do not breathe dust/fume/gas/mist/vapors/spray Wear protective gloves/protective clothing/eye protection/face protection	
<b>Precautionary Statements-Response</b>	Immediately call a POISON CENTER or doctor/physician Specific treatment (see supplemental first aid instructions on this label) Get medical advice/attention if you feel unwell	
<b>Eyes</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician	
<b>Skin</b>	IF ON SKIN: Wash with plenty of soap and water If skin irritation occurs: Get medical advice/attention Take off contaminated clothing and wash before reuse	
<b>Precautionary Statements-Storage</b>	Store locked up Store in a well-ventilated place. Keep container tightly closed	
<b>Precautionary Statements-Disposal</b>	Dispose of contents/container to an approved waste disposal plant	
<b>(c) Hazards not otherwise classified (HNOC)</b>		
Not applicable		
<b>(d) Unknown Toxicity</b>		
88.8 % of the mixture consists of ingredient(s) of unknown toxicity 11.5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity 88.8 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity 58.7 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas) 58.7 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor) 58.7 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)		
<b>(e) Other information</b>		
Very toxic to aquatic life with long lasting effects.		
<b>(f) Interactions with Other Chemicals</b>		

# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

No information available.

## Section 3- Composition/Information On Ingredients

Chemical Name	CAS Number	Weight (%)	Trade Secret
Iron	7439-89-6	34.5	*
Manganese dioxide	1313-13-9	23.6	*
Potassium hydroxide	1310-58-3	23.6	*
Zinc	7440-66-6	12.2	*
Graphite	7782-42-5	6.1	*

\* The exact percentage (concentration) of composition has been withheld as a trade secret.

## Section 4- First-aid Measures

### Description of first aid measures

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately rinse with water.
- **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## Section 5- Fire-fighting measures

### (a) Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### (b) Unsuitable extinguishing media

CAUTION: Use of water spray when fighting fire may be inefficient.

### (c) Specific Hazards Arising from the Chemical

The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

### (d) Hazardous Combustion Products

Carbon oxides.

### (e) Protective equipment and precautions for firefighters

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

## Section 6- Accidental Release Measures

### (a) Personal precautions, protective equipment and emergency procedures

If the battery is released, remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. The preferred response is to leave the area and allow the vapors to dissipate. Avoid skin and eyes contact or inhalation of vapors. Remove spilled liquid with absorbent and incinerated. If leakage of the battery happens, liquid could be absorbed with sand, earth or other inert substance and contaminated area should be ventilated meantime.

# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

**(b) Environment precautions**  
Do not allow product to reach sewage system or any water source.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.

**(c) Methods and material for containment and cleaning up**  
If battery casing is dismantled, small amounts of electrolyte may leak. Collect all released material in a plastic lined container. Dispose off according to the local law and rules. Avoid leached substances to get into the earth, canalization or waters.

## Section 7- Handling and Storage

**(a) Precautions for safe handling**  
**Handling**  
Handle in accordance with good industrial hygiene and safety practice. Wear personal protective equipment. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

**(b) Conditions for safe storage, including any incompatibilities**  
**Storage**  
Keep containers tightly closed in a dry, cool and well-ventilated place. Store locked up. Keep out of the reach of children.  
**Incompatible Products**  
Strong acids. Strong oxidizing agents. Strong bases

## Section 8- Exposure Controls/Personal Protection

**(a) Control parameters**

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Manganese dioxide 1313-13-9	TWA: 0.02 mg/m <sup>3</sup> Mn respirable particulate matter TWA: 0.1 mg/m <sup>3</sup> Mn inhalable particulate matter	(vacated) Ceiling: 5 mg/m <sup>3</sup> Ceiling: 5 mg/m <sup>3</sup> Mn	IDLH: 500 mg/m <sup>3</sup> Mn TWA: 1 mg/m <sup>3</sup> Mn STEL: 3 mg/m <sup>3</sup> Mn
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m <sup>3</sup>	(vacated) Ceiling: 2 mg/m <sup>3</sup>	Ceiling: 2 mg/m <sup>3</sup>
Zinc 7440-66-6	STEL: 10 mg/m <sup>3</sup> respirable fraction TWA: 2 mg/m <sup>3</sup> respirable fraction	TWA: 5 mg/m <sup>3</sup> fume TWA: 15 mg/m <sup>3</sup> total dust TWA: 5 mg/m <sup>3</sup> respirable fraction	IDLH: 500 mg/m <sup>3</sup> Ceiling: 15 mg/m <sup>3</sup> dust TWA: 5 mg/m <sup>3</sup> dust and fume STEL: 10 mg/m <sup>3</sup> fume
Graphite 7782-42-5	TWA: 2 mg/m <sup>3</sup> respirable particulate matter all forms except graphite fibers	TWA: 15 mg/m <sup>3</sup> total dust synthetic TWA: 5 mg/m <sup>3</sup> respirable fraction synthetic (vacated) TWA: 2.5 mg/m <sup>3</sup> respirable dust natural (vacated) TWA: 10 mg/m <sup>3</sup> total dust synthetic (vacated) TWA: 5 mg/m <sup>3</sup> respirable fraction synthetic TWA: 15 mppcf natural	IDLH: 1250 mg/m <sup>3</sup> TWA: 2.5 mg/m <sup>3</sup> respirable dust

# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

Chemical name	Alberta	British Columbia	Ontario TWAEV	Quebec
Manganese dioxide 1313-13-9	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.02 mg/m <sup>3</sup> TWA: 0.1 mg/m	TWA: 0.2 mg/m <sup>3</sup>
Potassium hydroxide 1310-58-3	Ceiling: 2 mg/m <sup>3</sup>	Ceiling: 2 mg/m <sup>3</sup>	CEV: 2 mg/m <sup>3</sup>	Ceiling: 2 mg/m <sup>3</sup>
Graphite 7782-42-5	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>	TWA: 2 mg/m <sup>3</sup>
Other Exposure Guidelines	Vacated limits revoked by the Court of Appeals decision in AFL-CIO v. OSHA, 965 F.2d 962(11th Cir., 1992) .			

## (b) Appropriate engineering controls

Engineering Measures	Showers Eyewash stations Ventilation systems
----------------------	--

## (c) Individual protection measures, such as personal protective equipment

Eye/Face Protection	Face protection shield.
Skin and body Protection	Wear protective gloves and protective clothing. Long sleeved clothing. Chemical resistant apron. Impervious gloves.
Respiratory Protection	No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse. Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. For environmental protection, remove and wash all contaminated protective equipment before re-use.

## Section 9- Physical and Chemical Properties

Form	Solid
Color	Black
Odor	No information available
pH	No information available
Melting point/freezing point	No information available
Boiling Point and Boiling range	No available
Flash Point	No available

# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

Upper/lower flammability or explosive limits	No available
Vapor Pressure	No available
Vapor Density	No available
Relative density	No available
Solubility in Water	No available
Auto-ignition temperature	No available
Decomposition temperature	No available
Evaporation rate	No available
Flammability (soil, gas)	No available
Viscosity	No available

## Section 10- Stability and reactivity

Reactivity	No information available.
Chemical stability	Stable under normal conditions.
Possibility of Hazardous Reactions	None under normal processing.
Hazardous Polymerization	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to air or moisture over prolonged periods. Excessive heat.
Incompatible materials	Acids. Bases. Oxidizing agent.
Hazardous Decomposition Products	Carbon oxides.

## Section 11 – Toxicological Information

Product Information	Product does not present an acute toxicity hazard based on known or supplied information In case of rupture:
Irritation	Specific test data for the substance or mixture is not available. Corrosive by inhalation.(based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. Harmful by inhalation.

# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Corrosive to the eyes and may cause severe damage including blindness. Causes serious eye damage. May cause irreversible damage to eyes.		
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.		
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.		
<b>Information on toxicological effects</b>			
<b>Symptoms</b>	Redness. Burning. May cause blindness. Coughing and/ or wheezing.		
<b>Numerical measures of toxicity</b>			
<b>Acute Toxicity</b>			
The following values are calculated based on chapter 3.1 of the GHS document .			
ATEmix (oral) 749.00 mg/kg			
ATEmix (inhalation-gas) 6,174.00 mg/L			
ATEmix (inhalation-dust/mist) 2.06 mg/L			
ATEmix (inhalation-vapor) 15.09 mg/L			
<b>Unknown acute toxicity</b>			
88.8 % of the mixture consists of ingredient(s) of unknown toxicity			
11.5 % of the mixture consists of ingredient(s) of unknown acute oral toxicity			
88.8 % of the mixture consists of ingredient(s) of unknown acute dermal toxicity			
58.7 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (gas)			
58.7 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (vapor)			
58.7 % of the mixture consists of ingredient(s) of unknown acute inhalation toxicity (dust/mist)			
<b>Component Information</b>			
<b>Chemical name</b>	<b>Oral LD50</b>	<b>Dermal LD50</b>	<b>Inhalation LC50</b>
Iron	= 984 mg/kg ( Rat )	-	-
Manganese dioxide	= 9000 mg/kg ( Rat )	-	-
Potassium hydroxide	= 284 mg/kg ( Rat )	-	-
<b>Delayed and immediate effects as well as chronic effects from short and long-term exposure</b>			
<b>Skin corrosion/irritation</b>	Classification based on data available for ingredients. Causes burns.		
<b>Serious eye damage/eye irritation</b>	Classification based on data available for ingredients. Risk of serious		



# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

	damage to eyes. Causes burns.
<b>Respiratory or skin sensitization</b>	No information available.
<b>Germ cell mutagenicity</b>	No information available.
<b>Carcinogenicity</b>	No information available.
<b>Reproductive toxicity</b>	No information available.
<b>STOT - single exposure</b>	No information available.
<b>STOT - repeated exposure</b>	No information available.
<b>Aspiration hazard</b>	No information available.

## Section 12- Ecological Information

<b>Ecological Toxicity</b>		Very toxic to aquatic life with long lasting effects.		
Chemical name	Toxicity to Algae	Toxicity to Fish	Toxicity to Microorganisms	Daphnia Magna (Water Flea)
Iron	-	96h LC50: = 13.6 mg/L (Morone saxatilis)	-	-
Potassium hydroxide	-	96h LC50: = 80 mg/L (Gambusia affinis)	-	-
Zinc	96h EC50: 0.11 - 0.271 mg/L (Pseudokirchneriella subcapitata) 72h EC50: 0.09 - 0.125 mg/L (Pseudokirchneriella subcapitata)	96h LC50: = 3.5 mg/L (Lepomis macrochirus) 96h LC50: = 7.8 mg/L (Cyprinus carpio) 96h LC50: = 0.24 mg/L (Oncorhynchus mykiss) 96h LC50: = 0.59 mg/L (Oncorhynchus mykiss) 96h LC50: = 0.41 mg/L (Oncorhynchus mykiss) 96h LC50: 0.211 - 0.269 mg/L (Pimephales promelas) 96h LC50: = 2.66 mg/L (Pimephales promelas) 96h LC50: = 30 mg/L (Cyprinus carpio) 96h LC50: = 0.45 mg/L (Cyprinus carpio) 96h LC50: 2.16 - 3.05 mg/L (Pimephales promelas)	-	48h EC50: 0.139 - 0.908 mg/L

# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

<b>Persistence and Degradability</b>	No information available.
<b>Bioaccumulation</b>	
<b>Chemical name</b>	<b>Log Pow</b>
Manganese dioxide	<0
Potassium hydroxide	0.83
<b>Section 13- Disposal Considerations</b>	
<b>Waste treatment methods</b>	
<b>Waste from residues/unused products</b>	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
<b>Contaminated packaging</b>	Do not reuse empty containers.
<b>California Hazardous Waste Codes 141</b>	
This product contains one or more substances that are listed with the State of California as a hazardous waste.	
<b>Chemical name</b>	<b>California Hazardous Waste</b>
Potassium hydroxide 1310-58-3	Toxic Corrosive
Zinc 7440-66-6	Ignitable powder Toxic
<b>Section 14 – Transport Information</b>	
<b>DOT</b> Proper Shipping Name Hazard Class	NOT REGULATED NOT REGULATED N/A
<b>TDG</b>	NOT REGULATED
<b>MEX</b>	NOT REGULATED
<b>ICAO</b>	NOT REGULATED
<b>IATA</b> Proper Shipping Name Hazard Class	NOT REGULATED NON REGULATED N/A
<b>IMDG/IMO</b> Hazard Class Marine Pollutant	NOT REGULATED N/A Product is a marine pollutant according to the criteria set by IMDG/IMO

# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

RID	NOT REGULATED
ADR	NOT REGULATED
ADN	NOT REGULATED

## Section 15- Regulatory information

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

### International Regulations

Ozone-depleting substances (ODS) Not applicable

Persistent Organic Pollutants Not applicable

Export Notification requirements Not applicable

### International Inventories

TSCA Contact supplier for inventory compliance status.

DSL/NDSL Contact supplier for inventory compliance status.

EINECS/ELINCS Contact supplier for inventory compliance status.

ENCS Contact supplier for inventory compliance status.

KECL Contact supplier for inventory compliance status.

PICCS Contact supplier for inventory compliance status.

AICS Contact supplier for inventory compliance status.

### Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

### US Federal Regulations

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

<u>Chemical name</u>	<u>CAS-No</u>	<u>Percent</u>	<u>SARA 313 - Threshold Values %</u>
Manganese dioxide - 1313-13-9	1313-13-9	30.1	1.0

# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

Zinc - 7440-66-6	7440-66-6	8.2	1.0
------------------	-----------	-----	-----

<b>Acute Health Hazard</b>	No
<b>Chronic Health Hazard</b>	No
<b>Fire Hazard</b>	No
<b>Sudden release of pressure hazard</b>	No
<b>Reactive Hazard</b>	No

**CWA (Clean Water Act)**

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name CWA - Reportable	Quantities	CWA - Toxic Pollutants CWA - Priority	Pollutants	CWA - Hazardous
Potassium hydroxide 1310-58-3	1000 lb			X
Zinc 7440-66-6		X	X	

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical name	Hazardous Substances RQs	Extremely Hazardous Substances RQs	RQ
Potassium hydroxide 1310-58-3	1000 lb		RQ 1000 lb final RQ RQ 454 kg final RQ
Zinc 7440-66-6	1000 lb		RQ 454 kg final RQ RQ 1000 lb final RQ

**US State Regulations**

**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

**U.S. State Right-to-Know Regulations**

This product may contain substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania	Rhode Island	Illinois
Manganese dioxide 1313-13-9	X		X	X	X
Potassium	X	X	X	X	

# Safety Data Sheet

Version: V1.1

REPORT NO.: LCS181106095ASD

hydroxide 1310-58-3					
Zinc 7440-66-6	X	X	X	X	
Graphite 7782-42-5	X	X	X		

## Section 16- Other Information

**NFPA**      Health hazards 1      Flammability 0      Instability 0      Physical and Chemical Properties -

**HMIS**      Health hazards 0      Flammability 0      Physical hazards 0      Personal Protection X

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**