GP Batteries

Material Safety Data Sheet — *Model No.: GP23A*

Note: Blank spaces are not permitted if any item is not applicable or no information is available, the space must be marked to indicate that.

Identity (As Used on Label and List)	Part Number
GP23A	GP23A

Section I- Information of Manufacturer

Manufacturer's Name

GP Batteries International Ltd.

Address (Number, Street, City, State, and ZIP Code)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components:

Description:	Approximate % of total weight	
manganese dioxide	17.9	Wt%
zinc	5.2	Wt%
mercury	0.17	Wt%
lead	0.0028	Wt%
cadmium	Nil	
sodium hydroxide and potassium hydroxide mixture, 30-35% solution	6.5	Wt%

Section III - Physical/Chemical Characteristics

Form	N.A.	Specific Gravity (H2O=1)	N.A.
Boiling point	N.A.	Melting Point	
Vapor Pressure (mm Hg)	N.A.	Evaporation Rate (Butyl Acetate =1)	N.A.
Vapor Density (AIR =1)	N.A.	pH	N.A.
Solubility in Water	N.A.	Appearance and Odor	N.A.

Section IV - Hazard classification

N.A.

Section V - Reactivity Data

Stability Yes = (X)	Unstable ( )	Conditions to Avoid
	Stable (X)	

Incompatibility (Materials to Avoid)

Hazardous Decomposition or Byproducts

When heated, battery may emit hazardous vapour of KOH/NaOH and Hg

Hazardous reactions Yes = (X)	May Occur ( )	Conditions to Avoid
	Will Not Occur (X)	

Section VI - Health Hazard Data

Route(s) of Entry Yes = (X)	Inhalation?	Skin?	Ingestion?
	(N.A.)	(N.A.)	(N.A.)

Health Hazard (Acute and Chronic) / Toxicological information

In case of electrolyte leakage, skin will be itchy when contaminated with electrolyte.

Section VII - First Aid Measures

First aid Procedures

If electrolyte leakage occurs and makes contact with skin, wash immediately.

If electrolyte comes into contact with eyes, wash with copious amounts of water for fifteen minutes, and contact a physician.

Section VIII - Fire and Explosion Hazard Data

Flash Point (Method Used)	Ignition temp.	Flammable Limits	LEL	UEL
N.A.	N.A.	N.A.	N.A.	N.A.

Extingushing Media

N.A.

Special Fire Fighting Procedures

N.A.

Unusual Fire and Explosion Hazards

Do not dispose of battery in fire - may explode.

Do not short-circuit battery - may cause burns.

Section IX - Accidental Release or Spillage

Steps to Be Taken in Case Material is Released or Spilled

Batteries that are leaking should be handled with rubber gloves.

Avoid direct contact with electrolyte.

Section X - Handling and Storage

Safe handling and storage advice

The battery is extremely sensitive to adverse effects of humidity. Be sure to store them in a place which is dry and subject to little temperature change. Do not place near the boiler or radiator, nor expose to direct sun light. Do not dispose of the battery in fire. Do not charge the battery. Do not short-circuit the battery. Do not put in backward position. Do not store in disorderly fashion, or allow metal objects to be mixed with stored batteries. Do not disassemble the battery, handling in such manner can cause the battery to explode, leak and injury.

Section XI - Exposure Controls / Personal Protection

Occupational Exposure Limits :	LTEP	STEP	
	N.A.	N.A.	
Respiratory Protection (Specify Type)			
	N.A.		
Ventilation	Local Exhausts	Special	
	N.A.	N.A.	
	Mechanical (General)	Other	
	N.A.	N.A.	
Protective Gloves		Eye Protection	
	N.A.	N.A.	
Other Protective Clothing or Equipment			
	N.A.		
Work/Hygenic Practices			
	N.A.		

Section XII - Ecological Information

N.A.

Secition XIII - Disposal Method

N.A.