

Revision: 3 Document number: BQS3200 1 of 4 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. **Section I- Information of Manufacturer** Manufacturer's Name Emergency Telephone Number GP Batteries International Ltd. Address (Number, Street, City, State, and ZIP Code) Telephone Number for information 8/F GP Building, 30 Kwai Wing Road Kwai Chung, N.T. H.K. Date of prepared and revision March 16, 2011 Signature of Preparer (optional) Section II - Hazardous Ingredients/Identity Information Hazardous Components: CAS# EINECS No. Description: Approximate % of total weight Silver oxide <47 Wt % Zinc 7440-66-6 231-175-3 <14 Wt % 7439-97-6 231-106-7 0 Mercury 7439-92-1 231-106-7 0 Lead 7440-43-9 231-152-8 0 32.6% solution (Potassium Hydroxide and Sodium <11 Wt% Hydroxide mixture) 0 Cr+60 PBB **PBDE** 0 Phthalate 0 Others <28 Wt% Section III - Physical/Chemical Characteristics Specific Gravity (H2O =1) N.A **Boiling Point** Melting Point N.A Vapor Pressure (mm Hg) Evaporation Rate N.A (Buty1 Acetate=1) N.A. Vapor Density (AIR=1) Ha N.A Solubility in Water Appearance and Odor N.A. N.A. Section IV-Hazard classification N.A. Section V - Reactivity Data Conditions to Avoid Stability Unstable Yes=(X) Stable Incompatibility (Materials to Avoid)

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

Member Gold Peak Group

Hazardous Decomposition or By products



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Hazardous Reactions	May Occur	Conditions to Avo	id		
Yes = (X)	Will Not Occur				
Section VI – H	Iealth Hazard Data				
Route(s) of Entry Yes		Skin?	Ingestion?	(N.A.)	
Health Hazard (A	cute and Chronic) / Toxi	,	(11.21.)	(1.7.)	
In case of electroly	te leakage, skin will be itchy w	hen contaminated with electr	olyte.		
In contact with elec	ctrolyte can cause severe irritati	on and chemical burns.			
Inhalation of electro	olyte vapors may cause irritatio	n of the upper respiratory tra	ct and lungs.		
Section VII – I	First Aid Measures				
Firs aid Procedure	es				
If electroly	yte leakage occurs and makes co	ontact with skin, wash with p	lenty of water immediately.		
If electroly	yte comes into contact with eye	s, wash with copious amount	s of water for fifteen (15) minutes	s, and contact a physician.	
If electroly	yte vapors are inhaled, provide	fresh air and seek medical att	ention if respiratory irritation dev	relops. Ventilate the contaminated area.	
	Fire and Explosion				
Flash Point (Method U	Used) Ignition temp. N.A. N.A.	Flammable Limits N.A.	LEL N.A.	UEL N.A.	
Extinguishing Media	Carbon Dioxide, Dry Che	emical or Foam extinguishers	i.		
Special Fire Fighting	Procedures N.A.	-			
Unusual Fire and	Explosion Hazards				
Do not dispose of b	oattery in fire – may explode.				
Do not short - circu	uit battery – may cause burns.				
Section IX – A	Accidental Release o	r Spillage			
Steps to Be Taken	n in Case Material is Rele	eased or Spilled			
Batteries that are le	aking should be handled with r	ubber gloves.			
Avoid direct contac	et with electrolyte.				
Section X – H	anding and Storage				
Safe handing and	storage advice				
Batteries should be	handled and stored carefully to	avoid short circuits.			
Do not store in diso	orderly fashion, or allow metal	objects to be mixed with store	ed batteries.		
Never disassemble	a battery.				
Do not breathe cell vapors or touch internal material with bare hands.					
Keep batteries betw	ween -30°C and 35°C for prolon	g storage.			





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Section 2	XI – Exposure Controls / Person	al Protection	
Occupational Exposure Limits : LTEP N.A.		STEP N.A.	
Respiratory P	rotection (Specify Type)	IV.A.	
	N.A.		
Ventilation	Local Exhausts N.A.	Special N.A.	
	Mechanical (general)	Other	
	N.A.	N.A.	
Protective Gloves		Eye Protection	
	N.A.	N.A.	
Other Protecti	ive Clothing or Equipment		
	N.A.		
Work / Hygie	nic Practices		
	N.A.		
Section 2	XII – Ecological Information		
	N.A.		
Section 2	XIII – Disposal Method		
Dispose o	of batteries according to government regulations		

Section XIV – Transportation Information

GP batteries are considered to be "Dry cell" batteries and are unregulated for purposes of transportation by the U.S. Department of Transportation (DOT), International Civil Aviation Administration (ICAO), International Air Transport Association (IATA) and International Maritime Dangerous Goods Regulations (IMDG). The only DOT requirement for shipping these batteries is special provision 130 which states: "Batteries, dry are not subject to the requirements of this subchapter only when they are offered for transportation in a manner that prevents the dangerous evolution of heat (For example, by the effective insulation of exposed terminals). The only requirements for shipping these batteries by ICAO and IATA is Special Provision A123 which states: "An electrical battery or battery powered device having the potential of dangerous evolutions of heat that is not prepared so as to prevent a short-circuit (e.g. in the case of batteries, by the effective insulation of exposed terminals; or in the case of equipment, by disconnection of the battery and protection of exposed terminals) is forbidden from transportation." The international Maritime Dangerous Goods Code (IMDG) regulate them for ocean transportation under Special Provision 304 which says: Batteries, dry, containing corrosive electrolyte which will not flow out of the battery if the battery case is cracked are not subject to the provision of this Code provided the batteries are securely packed and protected against short-circuits. Example of such batteries is: alkali-manganese, zinc-carbon, and nickel metal hydride and nickel-cadmium batteries.

Non-dangerous goods

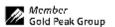
Such battery has been packed in inner packaging in such a manner as to effectively prevent short circuit and movement that could lead to short circuit.

Section XV – Regulatory Information

Special requirement be according to the local regulatory.

Section XVI – Other Information

The data in this Material Safety Data Sheet relates only to the specific material designated herein.



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Section XVII - Measures for fire extinction

In case of fire, it is permissible to use any class of extinguishing medium on these batteries or their packing material. Cool exterior of batteries if exposed to fire to prevent rupture.

Fire fighters should wear self-contained breathing apparatus.

Model No.	IEC
329F	\
357F	SR44
362F	SR58
364F	SR60
370F	SR69
377F	SR66
379F	SR63
381F	SR55
389F	SR54
392F	SR41
393F	SR48
394F	\
395F	SR57
397F	SR59
386F	SR43
476F	4SR44