

GP Batteries

Material Safety Data Sheet

Model No.: GPA76

Document number: BQS3001

Revision: 4

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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) GPA76	Part Number GPA76
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Section I - Information of Manufacturer

Manufacturer's Name GP Batteries International Ltd.	Emergency Telephone Number
Address (Number, Street, City, State, and ZIP Code) 8/F GP Building, 30 Kwai Wing Road, Kwai Chung, N.T. H.K.	Telephone Number for information 852-2484-3333
	Date of prepared and revision February 29, 2008
	Signature of Preparer (optional)

Section II - Hazardous Ingredients/Identity Information

Hazardous Components: Description:	Approximate weight of content in one piece of the cell (mg)	Approximate % of total weight
Manganese dioxide		26~31 Wt %
Zinc		9~11 Wt %
Mercury	5~6	0.27~0.33 Wt %
Lead		45~55 ppm
Cadmium		Nil
Sodium hydroxide and potassium hydroxide mixture, 30-35% solution		9~11 Wt%
Cr+6	0	0 Wt%
PBB	0	0 Wt%
PBDE	0	0 Wt%
Phthalate	0	0 Wt%
Others		47~56 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 By products

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

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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? (N.A.)	Skin? (N.A.)	Ingestion? (N.A.)
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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.

Extinguishing 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 that 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.

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	Mechanical (general)	N.A.	Other	N.A.
Protective Gloves		N.A.	Eye Protection	N.A.
Other Protective Clothing or Equipment		N.A.		
Work / Hygienic Practices		N.A.		

Section XII – Ecological Information

N.A.

Section XIII – Disposal Method

Dispose 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.” As of 1/1/97 IATA requires that batteries being transported by air must be protected from short-circuiting and protected from movement that could lead to short-circuiting

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.

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.

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材料安全数据表

型号: GPA76

文件编号: BQS3001

版本号: 4

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名称 碱性扣式电池	型号 GPA76
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第一部分 - 制造商信息

制造商名称 GP电池国际有限公司	紧急情况联系电话
地址 (门牌号, 街道, 城市, 州县, 邮政编码) 香港新界葵涌葵荣路30号金山工业中心8楼	联系电话 852-2484-3333
	修订日期 2008年2月29日
	修订人签名 (可选)

第二部分 - 危险成份信息

危险成份描述:	1粒电池中含有量 (mg)	百分含量
二氧化锰		26~31 Wt %
锌		9~11 Wt %
汞	5~6	0.27~0.33 Wt %
铅		45~55 ppm
镉		Nil
氢氧化钠, 氢氧化钾混合溶液 30-35%		9~11 Wt%
六价铬	0	0 Wt%
多溴联苯	0	0 Wt%
多溴二苯醚	0	0 Wt%
邻苯二甲酸盐	0	0 Wt%
其它		47~56 Wt%

第三部分 - 物理/化学特性

形态 N.A.	比重 (水 =1) N.A.
沸点 N.A.	熔点 N.A.
蒸汽压力 (mm Hg) N.A.	蒸发率 (醋酸盐=1) N.A.
相对密度 (空气=1) N.A.	PH值 N.A.
溶解性 N.A.	外观和气味 N.A.

第四部分 - 危险分级

N.A.

第五部分 - 反应数据

稳定性 是 (X)	不稳定 ()	避免环境
	稳定 (X)	

不相容 (避免物质)

有害分解物或副产品

当受热时, 电池会释放出KOH / NaOH 和汞蒸汽

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危险反应 是 = (X)	会发生 ()	避免环境
	不会发生 (X)	

第六部分 – 健康危害数据

侵入途径 是 = (X)	吸入 (N.A.)	皮肤 (N.A.)	食入 (N.A.)
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健康危害(急性和慢性)/ 毒理学构成

如电解液泄漏, 皮肤接触电解液会发痒。

第七部分 – 急救措施

急救程序

如电解液发生泄漏, 皮肤接触, 立即用水冲洗。

如电解液接触眼睛, 用大量水冲洗十五分钟, 就医。

第八部分 – 消防和燃爆数据

闪点	燃点	易燃度	下限	上限
N.A.	N.A.	N.A.	N.A.	N.A.

灭火方法

N.A.

特别灭火程序

N.A.

不寻常燃烧及爆炸之危害

勿弃于火中 – 会爆炸。

勿使电池短路 – 可能导致灼伤。

第九部分 – 意外泄漏

如遇泄漏采取的步骤

电池漏液时应佩戴橡胶手套进行处置。

避免直接接触电解液。

第十部分 – 操作和储存

安全操作和储存建议

电池对潮湿的不利影响非常敏感。应确保储存在干燥且温差小的地方。勿靠近锅炉和散热器, 勿暴露于太阳直射处。勿丢弃于火中。

勿给电池充电。勿使电池短路。勿将电池方向装反。勿使电池混乱摆放, 或与金属物件混合储存。勿拆开电池, 因为可能导致电池爆炸, 漏液或伤害。

第十一部分 – 暴露控制 / 个人防护

职业暴露限值：	下限	N.A.	上限	N.A.
呼吸系统防护				
N.A.				
通风	地区性排气	N.A.	特别	N.A.
	机械	N.A.	其他	N.A.
手防护		N.A.	眼睛防护	N.A.
其他防护服或设备				
N.A.				
工作/卫生惯例				
N.A.				

第十二部分 – 生态学信息

N.A.

第十三部分 – 废弃方法

依照政府法规进行处置

第十四部分 – 运输信息

GP电池是干电池，它的运输条件不受美国运输部、国际民间航空组织、国际航空运输协会和国际海运危险货物规则的限制。美国运输部特别130条款规定：“干电池运输时，在远离热源的情况下，可以作为普通货物运输（例如，有效的避免暴晒）。123条款规定：” 电池或者以电池为动力的装置如果未采取预防短路的措施是禁止运输的，因为会有发热的潜在危险（例如电池需将暴露的两极有效绝缘；以电池为动力的装置需断开电池，保护暴露的终端）。国际航空运输协会1/1/97 版本要求：空运这种电池必须防止短路和可能导致短路的移动。

第十五部分 – 调整信息

依照当地特殊要求调整。

第十六部分 – 其他信息

本材料安全数据表的数据仅针对此指定的材料。

第十七部分 – 灭火方法

如发生燃烧，允许使用任意类性的灭火媒体，如电池暴露于火中，为避免爆裂可冷却电池表面。

灭火人员应佩戴呼吸器。