

# ***MATERIAL SAFETY DATA SHEET***

***DATE; JULY 01<sup>ST</sup>, 2009***

***TO WHO MAY IT CONCERN***

***MANUFACTURER: GLOBAL BATTERY CO., LTD, SEOUL, KOREA***

***BRAND; MAXBAT GOLD & MAXBAT EXTREME***

PRODUCT: Lead-Acid Battery

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## ***HAZARDOUS COMPONENTS***

COMPONENT	% WEIGHT	OSHA PEL-TWA
Lead (Pb, PbO <sub>2</sub> , PbSo <sub>4</sub> )	60~70%	50 $\mu\text{g}/\text{m}^3$
Sulfuric Acid	25~30%	1.0 $\text{mg}/\text{m}^3$
Fiberglass Separator	1~2%	N/A
Non-Hazardous Materials	5~10%	N/A

## ***PHYSICAL/CHEMICAL DATA***

COMPONENT	MELTING POINTS	ODOR	APPEARANCE
Lead	327.4 °C	None	Silver-Gray Metal
Lead Sulfate	1,070 °C	None	White Powder
Lead Dioxide	290 °C	None	Brown Powder
Sulfuric Acid	114 °C	Acidic	Clear Colorless Liquid
Fiberglass Sep.	N/A	Toxic	White Fibrous Glass
Polystyrene	N/A	No Odor	Solid

## FLAMMABILITY DATA

COMPONENT	FLASH POINT	EXPLOSIVE LIMITS	REFERENCE
Hydrogen		5~92%	#1
Fiberglass Sep.	None	N/A	#2
Polystyrene	None	N/A	#2

#1: Lead-Acid Battery can emit hydrogen only if over-charged, which might be exploded.

#2: Toxic vapors may be released. In case of fire, wear self-contained breathing apparatus.

## SAFE HANDLING & USE

CONDITION TO AVOID:	
AVOID SHORTING. AVOID OVERCHARGING USE ONLY APPROVED CHARGING METHODS DO NOT CHARGE IN GAS TIGHT CONTAINER PROHIBIT SMOKING, SPARKING, ETC FROM BATTERY CHARGING AREA. AVOID MIXING ACID WITH OTHER CHEMICALS.	
STORAGE:	Store a well-ventilated and cool area.
WASTE DISPOSAL METHOD:	
Dispose of in accordance with Federal, State, & Local Regulations. Do not incinerate. Spent Battery should be treated as hazardous waste.	

## HEALTH HAZARD DATA

PROTECTION	Rubber gloves, Apron, Respirator, Safety goggles, Face Shield.
EMERGENCY & FIRST AID	Battery contains Acid Electrolyte, which is absorbed in the separator material. If battery case is punctured, completely flush any released material from skin or Eyes with water. See physician if blisters form.

## **ADDITIONAL INFORMATION**

The Safety Material Data Sheet is supplied for information purposes only.

The information and recommendations contained herein have been compiled from sources believed to be reliable and represent current opinion on the subject.

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**GLOBAL BATTERY CO., LTD.**

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**Authorized Signature**