

Section 1 product and company identification

Product name: Valve-regulated lead-acid battery:

BAT-12V7AH, BAT-12V17AH, BAT-12V4.5AH, BAT-12V12AH, BAT-12V5AH, BAT-12V9AH

Trademark: Gembird ®

Company name: Gembird Electronics Ltd.

Address: 2F, B Bulding, Shifeng Science and technology Park, Huaning Road,
Xinwei Village Dalang Street, Longhua, Bao An, Shenzhen, China

Section 2 composition/information on ingredients

Pure chemical Mixture

Chemical ingredients

Chemical ingredient	Molecular formula	Content (about)	CAS No.
Lead and lead oxide	Pb, PbO ₂	60-70	7439-92-1,1309-60-0
Calcium	Ca	<0.15	7440-70-2
Tin	Sn	<1	7440-31-5
Sulfuric acid	H ₂ SO ₄	10-15	7664-93-9
ABS		5-10	9003-56-9
AGM separator		3-4	

Section 3 hazards summarizing

Classification of Danger (see section 14)

Invasion Route: eyes, skin contact, ingestion

Health Hazard: The Valve-regulated lead-acid batteries are not hazardous when used according to the instructions of manufacturer under normal conditions. In case of abuse, there's risk of rupture, fire, heat, leakage of internal components, with could cause casualty loss. Contact with internal components may cause irritation or burns to eyes and skin. Abuses include but not limited to the following cases: charged for long time, short circuited, put into fire, whacked with hard object, punctured with acute object, crushed, and broken.

Environmental Hazard The internal electrolytemay cause adverse environmentalimpacts

The Danger of Burning and Exploding May occur fire or explosion in high temperature or short circuit.

Section 4 first-aid measures

The valve-regulated lead-acid batteries are not hazardous with eye and skincontact under normal circumstance. In case of internal hazardous substanceleaking, following measures should be taken if body parts contact with these substance:

AFTER SKIN CONTACT:

In case of contact, immediately wash skin with soap and copious amounts of water.

AFTER EYE CONTACT:

In case of contact, flush eyes with clean water for 15 minutes while lifting eyelids. Get prompt medical attention.

AFTER INHALATION:

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER INGESTION:

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

Section 5 fire-fighting measures

Characteristics of Hazard Toxic fumes; gases or vapors may evolve on burning.

Hazardous Combustion Products CO, CO₂, acid, hydrogen and oxygen gas

Fire-extinguishing Methods and Extinguishing Media Carbon dioxide, dry chemical powder, or appropriate foam

Attention in Fire-extinguishing The Firemen should put on antigas masks and full fire-fighting suits.

Section 6 accidental release measures

When leakage of batteries happens, liquid could be absorbed with sands, earth, or other inert substance, and the contaminated area should be ventilated meantime. Damaged batteries that are not hot or burning should be placed in a sealed plastic bag or container.

Section 7 handling and storage

Handling: don't handling the batteries in manner that allows terminals to short circuit

Storage: Store and used far away from heat, sparks, open flame, or other heat ignition sources, and under room temperature(<30°C) in ventilating and dehumidifying environments

Section 8 exposure controls/personal protection

Maximum Allowable Concentration: No Standard available

Engineering Controls: no engineering controls are required for handling batteries that have not been damaged.

Personal protective equipments for damaged batteries should include chemical resistant gloves and safety glasses.

Section 9 Physical and Chemical Properties

Not applicable

Section 10 stability and reactivity

Stability Stable under normal temperatures and pressures: environment temperature +20...+35 °C; relative humidity 45...80 %; atmospheric pressure 84...107 kPa (630...800 mm Hg)

Incompatibility oxidizing agents

Conditions to Avoid Heat and open flame, short circuit, and water

Hazardous polymerization Will not occur

Decomposition Products CO, CO₂, acid, hydrogen and oxygen gas

Section 11 toxicological information

This product does not elicit toxicological properties during routine handling and use.

Section 12 ecological information

Ecological toxicity N/A

Biodegradability N/A

Non-biodegradability N/A

Other hazardous The internal electrolyte may cause adverse environmental impacts

Section 13 disposal

Waste Treatment Recycle or dispose of in accordance with government, state & local regulations.

Attention for Waste Treatment: Deserted batteries couldn't be treated as ordinary trash. Couldn't be thrown into fire or placed in high temperature. Couldn't be dissected, pierced, crushed or treated similarly. Best way is recycling.

Section 14 transport information

UN NO. N/A

Proper shipping name: N/A

Packing group: N/A

ICAO/IATA	IMDG CODE	DOT
Not- regulated	Not- regulated	Not- regulated
Can be shipped by air in accordance with International Air Transport Association(IATA),DGR Packing Instructions(PI), PI872 appropriate and Special Provision A67	International Maritime Organization(IMO) under Special Provision 238	Non-Spillable Battery complies with the provisions listed in 49 CFR 173.159(d), therefore must not be marked with an identification number or hazardous label and is not subject to hazardous shipping paper requirements.

Batteries must be securely packed to short-circuiting

Section 15 regulatory information

Regulatory information : Recommendations on the transport of dangerous goods-model regulations(15th revised), IATA dangerous goods regulations, International Maritime Dangerous Goods Code, U.S. Hazardous Material Regulations

Section16 other information

Reference: National standard of People's Republic of China (GB16483-2008) Safety data for chemical products—
Content and order of sections

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.