M S D S

MATERIAL SAFETY DATA SHEET

Prepared for:	RNG International Inc.
Address:	
Product Name	VALVE REGULATED SEALED LEAD-ACID BATTERY
Model:	RBT100GEL12, RBT200GEL12, RBT100GEL12B RNG-BATT-AGM12-100, RNG-BATT-AGM12-200, RBT100AGM12B
Trademark:	Renogy
Nominal Voltage:	DC12V
Rated Capacity:	RBT100GEL12, RBT100GEL12B, RNG-BATT-AGM12-100, RBT100AGM12B: 100Ah RNG-BATT-AGM12-200, RBT200GEL12: 200Ah
Issue Day:	Jan. 01, 2020

Section 1 - Chemical Product and Company Identification

Product Name:	VALVE REGULATED SEALED LEAD-ACID BATTERY
Manufacture:	RITAR POWER (VIETNAM) COMPANY LIMITED
Address:	Lot A21, Road C4, TTC Industial Zone, An Hoa Commune, Trang Bang Dist, Tay Ninh Province, VietNam
Post code:	84000
Fax:	0755-27303413
Emergency Tel:	0755-27303361
E-mail:	info@ritarpower.com

Section 2 - Hazards Identification

Classification of Danger	See Section 14.
Invasion Route	Eye, 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 electrolyte may cause adverse environmental impacts
The Danger of Burning and Exploding	May occur fire or explosion in high temperature or short circuit.

Section 3 – Composition/Information on Ingredients

Pure chemical □ Mixture ■

Chemical ingredients:

Chemical ingredient	Molecular formula	Content	CAS No.
Lead and lead oxide	Pb, PbO_2	64	7439-92-1
Calcium	Ca	0.15	7440-70-2
Tin	Sn	0.4	7440-31-5
Sulfuric acid	H_2SO_4	22.45	7664-93-9
Fiber Glass	SiO_2	4	7631-86-9
ABS		9	9003-56-9

Section 4 - First Aid Measures

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

Eye	Flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
Skin	Remove contaminated clothes and rinse skin with plenty of water or shower for 15 minutes. Get medical aid.
Inhalation	Remove from exposure and move to fresh air immediately. Use oxygen if available.
Ingestion	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 handle 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 ℃) 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 Equipment	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
Incompatibility	Oxidizing agents
Conditions to Avoid	Heat and open flame, short circuit, and water
Hazardous Decomposition Products	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	Not Available
Biodegradability	Not Available
Non-biodegradability	Not Available
Other hazardous	The internal electrolyte may cause adverse environmental impacts.

Section 13 - Disposal Considerations

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 number 2800

Proper shipping name Not Available

Packing group Not Available

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 238 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.

Section 16 - 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.