#### Sicherheitsdatenblatt

gemäß Verordnung (EG) Nr. 1907/2006

Handelsname : VALVE REGULATED LEAD ACID BATTERY

Überarbeitet am : Revision 3.1

01. Bezeichnung des Stoffes bzw. der Zubereitung und Firmenbezeichnung

Handelsname: VALVE REGULATED LEAD ACID BATTERY

Verwendung des Stoffes / der Zubereitung: Valve regulated lead acid battery for stationary applications as stand by energy, immobilised electrolyte.

Hersteller/Lieferant: Kung Long Batteries Indutrial Co.,Ltd

Kontaktstelle für technische Information: Kung Long Batteries Indutrial Co.,Ltd No.6 TZU-Li 3 Road Natou City Taiwan Tel: 886-49-2254777-8 Fax: 886-49-2253607 Notfallauskunft: 0461/5057203

02. Mögliche Gefahren:

Danger of Explosion

A mixture of explosive gases, containing hydrogen, can be produced inside the battery during charging. Naked flames, lit cigarettes, sparks or incandescent materials must be avoided in the immediate vicinity of the battery. Avoid short circuits between the terminals. Use antistatic materials when cleaning. Do not store the product in sealed container; maintain a fresh, well-ventilated environment protected from direct sunlight and away from heat sources.

Gefahrenbezeichnung

Zusätzliche Gefahrenhinweise für Mensch und Umwelt: Health Risks Under normal conditions of use there is no danger, however, inside the battery are lead parts that could be harmful if ingested or breathed-in.

03.Zusammensetzung/Angaben zu den Bestandteilen

Component	%	EINECS# - CAS#	Danger -	R/S Phrases	EU Limits
	Weight		Symbol		
Metallic lead and	60-70	Lead	Toxic - T	R20/22 R33 R61	Lead in Air:
lead compounds		231-100-4/7439-		R62 R50/53	0,15 mg/m3
		92-1		S53 S45 S60 S61	Lead in Blood:
		Lead Monoxide			60 µg/dl (Italy)
		215-267-0/1317-			70 μg/dl (EU)
		36-8			
Sulphuric Acid	20-30	231-639-5	Corrosive	R35	
solution		7664-93-9	- C	S2 S26 S30 S45	
Glass felt		266-046-0/	Harmful -	R40	
separator		65997-17-3	Xn	R36/37/38	
Thermoplastic	6-9				
Polymer					

#### 04.Erste-Hilfe-Maßnahmen

#### FIRST AID MEASURES

The first aid measures described below are concerned with sulphuric acid exposure; the other components are solid and do not present substantial risk under normal conditions of use.

#### a) inhalation

Inhalation is not considered to be likely for this product. Remove the patient from the contaminated zone, to an area of fresh air. In the case of breathing difficulties seek medical advice.

#### b) Skin contact

Wash the effected zone immediately with copious amounts of water. Remove contaminated clothing. If the irritation persists seek medical advice.

#### c) Eye Contact

Wash with copious amount of water, while keeping the eyelid open. Seek medical advice immediately

d) Swallowing

Rinse the mouth with water. Give water to drink. Do not induce vomiting. Seek medical advice immediately.

\_ First aid resources for specific treatment to keep available: Eye wash bottles or emergency eye wash fountains, Shower.

#### 05. Maßnahmen zur Brandbekämpfung

The lead batteries are weakly combustible due to their construction that includes polymericthermoplastic comprising 6-9% of the total weight. In instances of fire wear adequate means of respiratory protection.

a) APPROPRIATE EXTINGUISHING MEDIA. Use dry powder, foam extinguisher, CO2.

b) INAPPROPRIATE EXTINGUISHING MEDIAWater, which in contact with acid can develop heat.

Besondere Gefährdung durch den Stoff oder die Zubereitung selbst, seine Verbrennungsprodukte oder entstehende Gase Besondere Schutzausrüstung bei der Brandbekämpfung

#### Zusätzliche Hinweise

06.Maßnahmen bei unbeabsichtigter Freisetzung

a) Personal Precautions

In the case of electrolyte leak prevent contact with skin and eyes by wearing appropriate protective equipment. Rubber gloves, rubber boots, safety goggles/face shield and acid resistant clothing.
b) Environmental precautions
Keep the electrolyte and possible lead powder away from drains or surface water.
c) Procedure for containment and collection
Neutralise with Caustic Soda or Calcium Carbonate
Contain the spill with sand, earth or other absorbent material.
Do not use Water (sulphuric acid solution can react exothermically with water).

07.Handhabung und Lagerung

Keep away from heat sources, sparks and open flames. Do not store the product in sealed containers; maintain a in a well ventilated area away from direct sunlight and well away from sources of heat.

08.Begrenzung und Überwachung der Exposition / Persönliche Schutzausrüstung

With the exception of safety shoes, the other means of personal protection are all related to preventing contact with electrolyte. The solid components do not represent an appreciable risk factor (apart from voluntary or accidental ingestion of lead components).

Personal Protection: Rubber gloves resistant to sulphuric acid. Safety Glasses (mask or visor), acid resistant clothing, rubber boots.

09. Physikalische und chemische Eigenschaften

Appearance: Solid state prismatic type Electrolyte: Sulphuric Acid in aqueous Solution Corrosive Density 1.22 - 1.30 kg/l Odourless Non-flammable.

#### 10.Stabilität und Reaktivität

The product is normally stable and inert.

A minute quantity of hydrogen and oxygen gas are produced when the units are left in a stable environment, avoid open flame sources and sparks in the proximity of the product.

### 11. Toxikologische Angaben

Inapplicable to the finished product 'lead acid battery', applicable to its constituents (in normal condition of batteries there is no contact with this material):

Sulphuric Acid:

Acute toxicity data:

- LD50(oral, rat) 2140 mg/Kg

- LC50 (inhalation, rat) 510 mg/mc/2h

Acts intensely corrosive on skin and mucous membranes. The inhalation of mists may cause damage to the respiratory tract.

### Lead and its inorganic compounds:

Exposure to lead and its compounds may cause damage to blood, nerves (central nervous system) and kidneys. Lead compounds are considered hazardous to reproduction (pregnant women should be protected from excessive exposure).

### **Glass felt separator:**

This product has not been tested as a whole entity. Information on components of this product is provided below:

Acute: glass fibre is an irritant of the upper respiratory tract, skin and eyes.

Chronic: based on the data from the artificial exposure studies in animals, IARC (International Agency for Research on Cancer) classified glass wool as possibly carcinogenic to humans Group 2B (Car, Cat. 3 EEC Directive 97/69 CE 13th dec.1997).

12. Umweltsbezogene Angaben

The electrolyte solution reacts with water and organic substances causing damage to flora and fauna. The Batteries also contain soluble components of lead than can be toxic to aquatic environments.

## 13. Hinweise zur Entsorgung

Lead batteries are classified "dangerous waste" and the user is obliged by law to arrange for their disposal or recycling. It is prohibited to abandon this type of refuse to the environment. For additional information and to locate your nearest collection centre contact the local consortium for the disposal of used and scrap lead containing batteries. FIAMM Batteries are 100% recyclable.

### 14. Angaben zum Transport

#### Land Transport (ADR/RID, U.S. DOT)

UN N°: UN2800 Classification ADR/RID: Class 8 Proper Shipping Name: BATTERIES, WET, NON SPILLABLE electric storage Packing Group ADR: not assigned Label required: Corrosive ADR/RID: New batteries are excepted from all ADR/RID (special provision 598). U.S. DOT: Batteries which have met the test requirements for "non spillable wet electric storage batteries", as provided in 49 CFR 173.159(d), are non regulated by DOT when protected against short circuits and securely packaged.

### Seeschiffstransport IMDG/GGVSee

# Sea Transport (IMDG Code)

UN N°: UN2800 Classification: Class 8 Proper Shipping Name: BATTERIES, WET, NON SPILLABLE electric storage Packing Group: III EmS-FIRE: F-A EmS-SPILL: S-B Label required: Corrosive If non-spillable batteries meet the Special Provision 238, they are excepted from all IMDG Code provided that the batteries' terminals are protected against short circuits.

Lufttransport ICAO-TI und IATA-DGR

#### Air Transport (IATA-DGR)

UN N°: UN2800 Classification: Class 8 Proper Shipping Name: BATTERIES, WET, NON SPILLABLE electric storage Packing Group: III Label required: Corrosive If non-spillable batteries meet the Special Provision A67, they are excepted from all IATA DGR provided that the batteries' terminals are protected against short circuits.

16.Sonstige Angaben

R/S Phrases (indicative since this is not directly applicable to the product, but the electrolyte contained therein which represents the major risk of the product):

R35 Can produce severe chemical burns.

S2 Keep out of reach of Children.

S16 Keep away from sparks or naked flame - No smoking.

S26 In case of contact with eyes wash immediately with abundant quantity of water and seek medical advice.

S30 Do not put water on the product.

S45 In case of accident or if you feel unwell, seek medical advice immediately.

Read the instructions for use contained in the guarantee/warrantee certificate



**Explosive Gase**