

Product Information

Type series **OPzS, OPzS solar.power, max.power**

vented / flooded lead acid battery

1. GENERAL INFORMATION

Manufacturer's Name:

HOPPECKE Batterien GmbH & Co. KG
Bontkirchener Str. 1
59929 Brilon

Telephone number for information: 02963 61 464

Emergency telephone number:

For transports only

National/International: +46 (0) 178 433 74 34

USA: 01149 178 433 74 34

Date: 29.06.2011

Trade Name:

OPzS
OPzS solar.power
max.power
vented Lead Acid Battery

2. HAZARDOUS INGREDIENTS / IDENTITY INFORMATION

Hazardous Components Specific Chemical Identity (Common Name)	Common Name	OSHA PEL	ACGIH TLV	Range Percent by Weight
Lead, CAS #7439921	positive Electrode and negative Electrode	0.05 mg/m ³	0.15 mg/m ³	54-62 % wt
Sulfuric Acid, CAS #7664939	Electrolyte	1.00 mg/m ³	1.00 mg/m ³	26-40% wt

Percentages of components are dependant both on the model of the battery and stets of charge/discharge of the battery.

Inorganic lead and electrolyte (sulphuric acid) are the primary components of every battery manufactured by HOPPECKE Batterien GmbH & CO. KG.

Other ingredients may be present dependent upon battery type. Contact your HOPPECKE Batterien GmbH & CO. KG representative for additional information.

Under normal use and handling the customer has no contact with the internal components of the battery or the chemical hazards. Under normal use and handling these batteries do not emit regulated or hazardous substances. Warning: Battery terminals posts and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands thoroughly after working with batteries and

before eating, drinking or smoking.

3. PHYSICAL / CHEMICAL CHARACTERISTICS

Electrolyte (Sulfuric Acid):
See enclosed MSDS electrolyte

Lead:
See enclosed MSDS lead

4. FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used):	non flammable
Flammable Limits:	*Hydrogen Gas
Extinguishing Media:	Class ABC extinguisher,
Limits:	LEL = 4.1% (Hydrogen Gas) UEL = 74.2%

NOTE: CO₂ may be used, but not directly on the cell. The thermal shock may cause cracking of the battery case and/or cases.

Hydrogen gas may be generated during battery charging.

Special Fire Fighting Procedures: If batteries are on charge, turn off power. Use positive pressure, self-contained breathing apparatus in fighting fire. Water applied to electrolyte generates heat and causes it to splatter. Wear acid resistant clothing. Ventilate area well.

Unusual Fire and Explosion Hazards: Hydrogen and oxygen gases are generated in cells during normal battery operation or when on charge. (Hydrogen is flammable and oxygen supports combustion). These gases enter the air through the vent caps during battery overcharging. To avoid risk of fire or explosion, keep sparks and other sources of ignition away from the battery. Do not allow metal objects to simultaneously contact both positive and negative terminal of batteries. Ventilate area well.

5. REACTIVITY DATA

Stability: Stable

Condition to Avoid: Prolonged overcharging, sources of ignition

Incompatibility (Materials to Avoid): Sulfuric Acid: Contact with combustibles and organic materials may cause fire and explosion. Also reacts violently with strong reducing agents, metals, strong oxidizers and water. Contact with metals may produce toxic sulfur dioxide fumes and may release flammable hydrogen gas. Combination of Sulfuric acid with combustibles and organic materials may cause fire and explosion. Avoid strong reducing agents, most metals,

carbides, chlorates, nitrates, picrate.

Hazardous Decomposition Products: Sulfuric Acid: Excessive overcharging or fire may create sulfur trioxide, carbon monoxide, sulfuric acid mist and sulfur dioxide.

Lead Compounds: Contact with strong acid or base or presence of nascent hydrogen may generate highly toxic arsine gas.

Hydrogen gas may be generated in an overcharged condition, in fire or at very high temperatures. CO, CO₂, and sulfur oxides may emit in fire. Hazardous polymerization will not occur.

6. HEALTH HAZARD DATA

See enclosed MSDS Acid, Lead

7. PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to be Taken in Case Material is Released or Spilled: Electrolyte material is corrosive. Contains sulfuric acid. Stop flow of material, contain/absorb small spills with dry sand, earth, and vermiculite. Do not use combustible materials. If possible, carefully neutralize spilled electrolyte with soda ash, sodium bicarbonate, lime, etc. Wear acid-resistant clothing, boots, gloves, and face shield. **Do not allow discharge of un-neutralized acid to sewer.** Neutralized acid must be managed in accordance with approved local, state, and federal requirements. Consult state environmental agency and/or federal EPA. Reference 1996 North American Emergency Response Guidebook, #154.

Waste Disposal Method: Lead-acid batteries are completely recyclable. For information on returning batteries to HOPPECKE Batterien GmbH & Co. KG for recycling, contact your HOPPECKE Representative. Dispose of any collected material in accordance with local, state or applicable federal regulations.

Precautions to be Taken in Handling and Storing: Store batteries under roof in cool, dry, well-ventilated areas that are separated from incompatible materials and from activities that may create flames, spark, or heat. Store on smooth, impervious surfaces that are provided with measures for liquid containment in the event of electrolyte spills. Keep away from metallic objects that could bridge the terminals on a battery and create a dangerous short-circuit. Handle carefully and avoid tipping, which may allow electrolyte leakage. Single batteries pose no risk of electric shock but there may be increasing risk of electric shock from strings of connected batteries.

Charging: There is a possible risk of electric shock from charging equipment and from strings of series connected batteries, whether or not being charged. Shut-off power to chargers whenever not in use and before detachment of any circuit connections. Batteries being charged will generate and release flammable hydrogen gas. Charging space should be ventilated. Keep battery vent caps in position. Prohibit smoking and avoid creation of flames and sparks nearby. Wear face and eye protection when near batteries being charged.

Other Precautions: If battery case is broken, avoid direct contact with internal components. Keep away from ignition sources during charging.

8. CONTROL MEASURES

Respiratory Protection (Specific Type): None required under normal conditions. When concentrations of sulfuric acid mist are known to exceed PEL, use NIOSH or MSHA-approved respiratory protection.

Ventilation: Must be provided when charging in an enclosed area.

Protective Gloves: Rubber or plastic acid-resistant gloves with elbow-length gauntlet

Eye Protection: Chemical goggles or face shield

Other Protection: Acid-resistant apron. Under severe exposure or emergency conditions, wear acid-resistant clothing, gloves, and boots.

Emergency Flushing: In areas where water and sulfuric acid solutions are handled in concentrations greater than 1%, emergency eyewash stations and showers should be provided, with unlimited water supply.

Work Hygienic Practices: Good Personal hygiene and work practices are recommended.

9. Transportation

Transport regulations for hazardous substances contained

Cargo freights ADR/RID and GGVS/GGVE (transborder/national):

ADR/RID-GGVS/E class	8
Hazard identification number	80
UN-Number	UN 2794
Label	8
Technical name	batteries, wet, filled with acid (electric storage)

Maritime transports IMDG/GGVSee:

IMDG/GGVSee-class	8
UN-Number	UN 2794
Label	8
Technical name	batteries, wet, filled with acid (electric storage)

Aerial transportation ICAO-TI and IATA-DGR:

ICAO/IATA-class	8
UN/ID-Number	UN 2794
Label	8
Technical name	batteries, wet, filled with acid (electric storage)