SAFETY DATA SHEET
acc. to 91/155/EWG and 2001/58/EG

1. DESIGNATION OF SUBSTANCE / DISPENSATION AND COMPANY

Designation of Product /
Name of Product: **Sealed Lead Acid Battery (wet, non-spillable)**

- Voltage — 6 Volts / 12 Volts
- Electro-Chemical System — Lead, sulphuric acid

(This product does not constitute a substance or a dispensation according to the Law on Chemicals.)

Supplier: Celectric BV
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2. COMPOSITION / DETAILS OF COMPONENTS

Designation of Substance	CAS-No.	Content * [m-%]	EINECS-No.	Code Letter	R-Rates
Lead	7439-92-1	approx.50	231-100-4	T	20/22; 33; 61; 62
Lead Oxide	1309-60-0	approx.20	215-175-5	T; N	20/22; 33; 50/53; 61; 62
Sulphuric acid 37 m-%	7644-93-9	approx.20	231-639-5	C	35
Polypropylene	--	approx.10	--	--	--

* referring to the total weight of the battery

3. POSSIBLE HAZARDS

- When intact SLA-batteries are handled in a proper manner, there are no hazards for people or for the environment.
- If the casing breaks, sulphuric acid may escape danger of chemical burns.
- Fire hazard, when there is a short circuit of the poles.
- When the regulations for electrical recharging of the batteries are disregarded, there is a hazard through the formation of hydrogen (casing may burst and danger of explosion).
- Hazardous corrosion products may form if there is a fire (sulphuric acid).

4. FIRST AID MEASURES FOR CONTACT WITH ACID

GENERAL NOTES

- Immediately remove clothing soiled with acid.

AFTER INHALING

- Bring wounded person out of the danger zone to fresh air, consult a doctor.
- Keep the wounded person in a quiet resting position and prevent hypothermia.
- Allow a semi-seated position if shortness of breath occurs.
- Facilitate the inhaling of Dexamethason-21-isonicotinat (e.g. Auxiloson-can of aerosol) as soon as possible:
  4 strokes to start with, then two more strokes every five minutes until the first package is empty.
  In the following, one stroke every hour.
- For unconsciousness with continued breathing, find a secure sideways position.
- Conduct mouth-to-nose resusitation when breathing stops, if this is not possible conduct mouth-to mouth resusitation.
  Keep respiratory tracts clear.
- In the event of cardiac arrest immediately conduct heart-lung resusitation.

AFTER SKIN CONTACT

- Remove moistened clothing as quick as possible, thereby heeding self-protection.
- Rinse main areas affected for ten minutes with running water.
- Dab concentrated acid with dry cellulose or textile substance beforehand, as it reacts intensely with water under strong heat development.
- When possible, apply a flood-shower after large-scale moistening, or rinse otherwise with large quantities of water. Then rest the wounded person motionless and warm.
- Consult a doctor.

AFTER EYE CONTACT

- Rinse the eye protecting the unharmed one for at least ten minutes with running water and with the eyelids wide open.
- Direct a mild jet of water at the eye in order to remove acid residue as quickly and completely as possible.
- Consult a doctor.

AFTER SWALLOWING

- Rinse mouth, spit out the liquid.
- Immediately provide 1 or 2 glasses of water (milk or tea) for drinking.
- Do not try to neutralize with leaches / do not apply A-coal!
- Do not facilitate vomitting.
- Call the EMT to the site of the accident.
- Should the person affected spontaneously vomit, hold the person’s head low to the stomach, in order to prevent vomit from entering the windpipe.

Absolutely ensure rapid medical care.

NOTES FOR THE DOCTOR

- Inform the doctor about substance / product and conducted measures.
- Danger of stomach perforation.

5. MEASURES FOR FIRE- FIGHTING

- All common fire-fighting substances are suitable.
- Preferably foam, carbon dioxide, and fire-fighting powder.
- Adapt fire-fighting measures to the surroundings.
- Beware of acids escaping from boxes which have caught fire.
- Possibility of hazardous corrosion products (sulphur trioxide) forming.

6. MEASURES FOR UNINTENTIONAL RELEASE

In order to remove the hazardous situation, the danger zone may only be accessed with appropriate protective measures.

LEAD / LEAD OXIDE

- Absorb mechanically and avoid dust.
- Collect absorbed substance in container.
- Do not burn waste containing lead oxide.
- Absorb the spread substance with moisture immediately and do not carry it into other rooms.
- Prevent penetration of underground or bodies of water.

SULPHURIC ACID

- Do not allow it to enter the sewage system or bodies of water.
- Dilute with water and then neutralize it with, e.g. sodium hydroxide, sodium carbonate, or calcium carbonate (Caution! Strong formation of CO2 when applying carbonates)
  Alternatives:
- Absorb with calcium or water-free soda and store in closed arrangement until disposal.
- Immediately cleanse moistened surfaces with large amounts of water.

POLYPROPYLENE

none

7. HANDLING AND STORAGE

HANDLING

- Do not throw or tilt batterie.
- Effectively prevent a short-circuit of the battery poles.
- Heed the loading regulations of the battery manufacturer when loading batteries.
- Beware of the guidelines when installing it into vehicles (polarity!)

STORAGE

- No specific storage requirements for up-and-running batteries.

8. LIMITATION OF EXPOSURE AND PERSONAL PROTECTIVE GEAR

LIMITATION OF EXPOSURE

not applicable

PERSONAL PROTECTIVE GEAR FOR HANDLING BATTERY ACID

- **HAND PROTECTION**
  – Use protective gloves.
  – The material of the gloves must be sufficiently resistant to the applied substance.
  – Check tightness before use.
  – Heed skin protection.
  – Pre-Rinse worn gloves before removing them; store them in a well-ventilated manner.
  – Prevent skin contact.

- **EYE PROTECTION**
  – Use wicker-goggles.

GENERAL PROTECTION AND MEASURES OF HYGENE

- The common cautionary guidelines for handling chemicals are to be abided.
- Prevent skin / eye / clothing contact.
- Prevent breathing in vapors.
- Wash hands before breaks and at the end of work.
- Consult a doctor when experiencing health concerns.

9. PHYSICAL AND CHEMICAL PROPERTIES

Closed casing for code-substance with connecting poles

ADDITIONAL PHYSICAL AND CHEMICAL PROPERTIES

not applicable

OTHER FEATURES

Electricity storage (voltage, capacity)

10. STABILITY AND REACTIVITY

HEED THE ELECTRIC LOADING AND MOUNTING GUIDELINES OF THE BATTERY MANUFACTURER

PLASTIC CASING

- Melting point of the plastic casing: approx. 160℃
- Point of inflammability of the plastic casing: approx. 380℃

SULPHURIC ACID / BATTERY ACID

- Corrosion of sulphuric acid above 338℃.
- Sulphuric acid corrosion products: sulphur trioxide.

LEAD / LEAD OXIDE

- Corrosion of lead oxide above 300℃ under seperatio n of oxygen.
- Corrosion products: oxygen.

11. TOXICOLOGY DATA

No toxic agents will be released during proper use and when abiding the guidelines of the battery manufacturer.

SULPHURIC ACID / BATTERY ACID

Acute Toxicity

- LD/LC50 values relevant to rating: Oral ½ LD50 ½ 2.140 mg.kg-1(rat)
- Irritating and caustic effect on mucous membrane and skin.
- Danger of severe eye and lung damage.
- Danger of perforating oesophagus and stomach when swallowed.

LEAD / LEAD OXIDE

Acute Toxicity

- Gastro-Intestinal malfunction.
- ZNS malfunction.
- Harm to blood.
- Signs of intoxication through inhaling or oral intake:
  sweet-metalic taste, flow of saliva, vomitting.

POLYPROPYLENE

not applicable

Also refer to information under paragraph 2.

12. ECOLOGY DATA

No ecological agents will be released during proper use and when abiding the guidelines of the battery manufacturer.

LEAD / LEAD OXIDE (surrounded by sulphuric acid / battery acid)

- Highly poisonous to water organisms; can have a harmful effect on bodies of water over a long period of time.
- WGK III: high hazard to water.

POLYPROPYLENE

Not applicable

13. NOTES ON DISPOSAL

PRODUCT

- Do not dispose product along with household refuse.
- Transfer to licensed disposal company.
- After use, the product must be forwarded to recycling.
- Numbers of the keys for disposal: ÖNORM S 2100 Key Number 35322
  LAGA-Code 35322
  EWC-Code 1606 01

14. TRANSPORTATION GUIDELINES

Used batteries which are to be returned or transported to disposal, must be thoroughly inspected for damage and transport-aptitude, in order to ensure the integrity of each battery and its suitability for transportation.

LAND TRANSPORTATION ADR/RID (ACROSS BORDERS/ DOMESTIC)

- ADR/RID Grade: 8
- Classification code: C11
- Kemler Number: 80
- UN Number: 2800
- Hazard Notice: 8
- Packaging Group: none
- Designation of Goods: BATTERIES (ACCUMULATORS), WET, NON-SPILLABLE, electric collector
- Special Regulations: 238, 295 and 598

SEA-VESSELTRANSPORTATION IMDG

- IMDG/GGVSea Grade: 8
- UN Number: 2800
- Packaging Group: none
- Marine pollutant status: no
- EMS Number: F-A, S-B
- MFAG: 700
- Proper Technical Name: BATTERIES, WET, NON-SPILLABLE, electric storage
- Special Regulations: 29 and 238

AIR TRANSPORTATION ICAO-TI AND IATA-DGR

- ICAO/IATA Grade: 8
- UN/ID Number: 2800
- Packaging Group: none
- Proper Technical Name: BATTERIES, WET, NON-SPILLABLE, electric storage
- Special Regulations: A48 and A67

15. EU REGULATIONS

HAZARD SYMBOLS AND HAZARD DESIGNATION

E Danger of Explosion

C Caustic

T Poisonous

N Environmental Hazard

DETERMINING COMPONENTS OF HAZARDS FOR LABELLING

- Lead / lead oxide and sulphuric acid 37 m-% / battery acid

R-RATES

- R20/22 Health hazard when inhaled or swallowed
- R33 Danger of cumulating effect.
- R35 Causes severe chemical burns.
- R50/53 Highly poisonous to water organisms, can have damaging long-term effects on bodies of water.
- R61 May cause harm to children in the womb.
- R62 May be detrimental to the ability to reproduce.

S-RATES

- S01/02 Sealed storage and keep out of the reach of children.
- S26 After eye contact, immediately rinse with water thoroughly and consult a doctor.
- S35 Waste and containers must be disposed of in a secure manner.
- S45 In case of an accident or of health concerns, immediately call upon a doctor (present this label if possible).
- S53 Avoid exposure – obtain specific instructions before use.
- S60 This product along with its container must be disposed of as hazardous waste.
- S61 Prevent release into the environment. Obtain specific instructions / consult the safety datasheet

NATIONAL REGULATIONS

- National classifications are equal to the classification of the EU guidelines.

CLASSIFICATION ACCORDING TO VbF

does not apply
Heed official regulations for storage and handling.

16. FURTHER DATA

RELEVANT R-RATES

- R20/22 Health hazard when inhaled or swallowed.
- R33 Danger of cumulating effect.
- R35 Causes severe chemical burns.
- R50/53 Highly poisonous to water organisms, can have damaging long-term effects on bodies of water
- R61 May cause harm to children in the womb.
- R62 May be detrimental to the ability to reproduce.

REGULATIONS FOR SAFE HANDLING OF BATTERIES

- to be displayed by exhibitor.

DATA SHEET ISSUING

- Department for Safety and Environmental Technology of the Celectric BV company.

The classification equals the current EC guidelines, however, it is supplemented by remarks from professional literature and by company details.

The details and data correspond to our present state of knowledge, however, these do not represent any assurance in regard to features or description of quality. We cannot accept liability for that.