

0 EXPLANATORY NOTE

Alkaline batteries are articles considered under the REACH regulation and their content is not intended to be released under normal or reasonably foreseeable conditions, consequently there is no obligation to produce a safety data sheet.

Nevertheless, to facilitate the handling of this article, a safety data sheet is in fact provided, even though interpretation of such may lead to errors given that it contains data on the substances that are used to form the battery, it should be remembered that these substances are not released under normal or reasonably foreseeable conditions.

1 IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

1.1 Product identifier

Product name: Alkaline Primary batteries

Alternate names: Zinc-Manganex Battery, Dry cells

1.2 Relevant identified uses of the product

Primary electric cell (primary energy source).

Uses advised against: recharge, short circuit, and over-discharge of the battery

1.3 Details of the supplier of the safety data sheet

Company name: Cegasa Energia S.L.U.

Address: Marie Curie, 1 · 01510 · Miñano Mayor (Alava) · España

Telephone: (34) 945 313 738

E-mail: info@cegasa.com

1.4 Emergency telephone number:

Instituto Nacional de Toxicología (Madrid)

Teléfono: (34) 915 620 420

2 HAZARD IDENTIFICATION

Classification of the product Not applicable

Label elements Not applicable

Other hazards: Incorrect handling of the batteries may lead to an accidental release of liquid, overheating or explosion and cause injury or damage equipment. Especially if contact is made with the escaping liquid, this can cause injuries such as loss of sight

Improper use of batteries may result in the following risks:

- Contact with corrosive substances (leakage of electrolyte)
- Burns (battery short-circuit)
- Splashes and projections (sudden mechanical failure of the battery)

3 COMPOSITION / INFORMATION ON INGREDIENTS

Each battery is made up of a hermetically sealed container that contains a number of chemical products and materials which might be potentially dangerous in the event of accidental release.

COMPONENT	CAS N°	EINECS N°	CONTENT % (Weight)	R PHRASES
Manganese dioxide (MnO ₂)	1313-13-9	215-202-6	30-45	R20/22
Zinc (Zn)	7440-66-6	231-175-3	10-20	R50/53
Graphite (C)	7782-42-5 7440-44-0	231-955-3	2-6	
Potassium hydroxide (KOH)	1310-58-3	215-181-3	2-11	R35-22

HEAVY METALS	EINECS N°	CAS N°	% (Weight)
Mercury (Hg)	231-1106-7	7439-97-6	< 0.0005
Cadmium (Cd)	231-152-8	7440-43-9	< 0.001
Lead (Pb)	231-100-4	7439-92-1	< 0.05

4 FIRST AID MEASURES

In the event that the battery suffers a leak, observe the following instructions:

Contact with the skin	The contents of a battery may cause skin irritation. Remove contaminated clothing and wash skin with copious amounts of water. Seek medical attention if irritation persists.
Contact with the eyes	The contents of an open battery may cause serious eye irritation and/or chemical burns. Immediately wash the eyes with plenty of water for at least 15 minutes, keeping the eyelids open without rubbing them until all traces of the chemical product have gone. Consult an ophthalmologist.
Ingestion	The battery may be harmful if swallowed. The contents of an open battery can result in burns to the mouth, oesophagus and the gastrointestinal tract. Do not induce vomiting or take anything to eat or drink. If in doubt as to the measures to take, call the National Toxicology Institute (Madrid) Telephone: 915 620 420.
Inhalation	The contents of an open battery may cause respiratory irritation.. Provide fresh air to the person and if irritation persists seek medical attention.
General Guidelines	Should loss of consciousness occur, never administer anything to drink or induce vomiting.

5 FIREFIGHTING MEASURES

5.1 Extinguishing media

Any extinguishing media will be effective.

5.2 Special hazards arising from the product

The product is not flammable.

Electric primary batteries, being hermetically sealed products, may explode at high temperatures.

5.2 Advice for fire-fighters

Use self-contained breathing equipment and a full protective suit when fighting the fire.

6 ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

There is a possibility of the batteries short-circuiting generating, in such cases, a release of corrosive electrolyte. Avoid direct contact with the eyes, the skin or clothing and make use of the personal protective equipment mentioned in Section 8.2.

6.2 Environmental precautions

- Keep spill away from drains, surface and ground water.
- Keep spill away from soil.

6.3 Methods and material for containment and cleaning up

Gather up batteries and remains of batteries and deposit them in a watertight non-metallic container. The waste matter produced must be treated in accordance with current legislation.

7 HANDLING AND STORAGE

7.1 Precautions for safe handling

- Keep batteries out of children's reach.
- Install the batteries correctly, respecting the polarity (+ and -)
- All batteries that are used simultaneously in the same appliance must be replaced at the same time in order to ensure that all of the batteries in the appliance share the same characteristics.
- Do not mix different types or makes of batteries
- Avoid subjecting the battery to electrical or mechanical abuse
- Do not attempt to recharge the batteries by heating them or using any other method.
- Do not dismantle the batteries.
- Do not throw batteries into a fire or incinerate.
- Do not expose batteries to high temperatures
- Avoid short-circuiting the batteries.
- Do not remove the insulating material that covers the battery.
- Do not recharge primary batteries.
- Do not over discharge the batteries.
- Remove the batteries from the appliance when they are dead.
- Do not solder the batteries.
- Always remove the batteries if the battery operated appliance is not going to be used for prolonged periods.

7.2 Storage

Store in a cool, dry and well-ventilated area. Elevated temperatures can result in shortened battery life.

7.3 Specific end use(s)

Alkaline batteries are not rechargeable and no attempt must be made to recharge them. Follow the manufacturer's instructions.

8 EXPOSURE CONTROL / PERSONAL PROTECTION

8.1 Control parameters

The batteries have not exposure limits. Their internal components have exposure limits, but under normal conditions of use do not go abroad.

8.2 Personal protection

Not necessary under normal use conditions

If contact with the internal components of the battery, use hand protection and eye protection to avoid contact with corrosive substances.

9 PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<u>Appearance:</u>	Cylindrical or parallelepiped tubes
<u>Odour:</u>	Odourless
<u>pH:</u>	Under normal conditions: Not applicable Internal product: pH 14
<u>Boiling point/rate (°C):</u>	Not applicable
<u>Melting point/rate (°C):</u>	Not applicable
<u>Flash point:</u>	Not applicable
<u>Flammability (solid, gas):</u>	Not flammable
<u>Autoflammability:</u>	Not applicable
<u>Explosion risk</u>	It is not explosive (hermetically sealed product, do not expose to heat sources).
<u>Combustion agents:</u>	Not applicable
<u>Relative density:</u>	3-05 g/cm ³
<u>Solubility:</u>	Not applicable
<u>Distribution coefficient:</u>	Not applicable
<u>Vapour density:</u>	Not applicable
<u>Evaporation rate:</u>	Not applicable

9.2 Other information

<u>Open circuit voltage:</u>	1.5 to 9 V
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10 STABILITY AND REACTIVITY

It is stable under normal conditions of use (see Section 7)

When heated above 150°C the risk of rupture occurs.

11 TOXICOLOGICAL INFORMATION

Under normal conditions, a battery does not present any toxicity.

12 ECOLOGICAL INFORMATION

Issues such as ecotoxicity, mobility, bioaccumulation potential, Persistence and biodegradability are not applicable to batteries.

13 DISPOSAL CONSIDERATIONS

Used batteries must be disposed of in accordance with local legislation. In Europe, particularly, disposal should be managed in accordance with **Directive 2006/66/EC** of the European Parliament and Council of September 6, 2006 concerning batteries and accumulators and waste batteries and accumulators and which repeals Directive 91/157/EEC Text with EEA relevance

To date, this waste is classified as **non hazardous** in the European waste list (EWL Code 16.06.04)

14 TRANSPORT INFORMATION

Regulation	Special provision
ADR	No regulated
IMDG	No regulated
UN	No regulated
US DOT	49 CFR 172.102 provision 130
IATA	A123
ICAO	No regulated

15 REGULATORY INFORMATION

The only regulatory information is referred to in paragraph 13 (Directive 66/2006)

16 OTHER INFORMATION

Not applicable

The information contained in this Safety Data Sheet is based on the present state of our knowledge. Its sole purpose is to provide a description of the safety requirements; it is not to be considered a guarantee of the product's properties.