

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION OF THE MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier:

MRBAT101 - MediaRange Premium Alkaline Batteries, Micro AAA I LR03 I 1.5V, Pack 4
MRBAT102 - MediaRange Premium Alkaline Batteries, Micro AAA I LR03 I 1.5V, Pack 10
MRBAT103 - MediaRange Premium Alkaline Batteries, Micro AAA I LR03 I 1.5V, Pack 24

1.2. Relevant identified uses of the mixture and uses advised against:

Alkaline batteries. For use in minor electronic devices.

In accordance with Regulation (EC) No 1907/2006 (REACH), the product is considered an article, for which a safety data sheet is not required. The following information is only indicative in order to ensure safe use of the product.

1.3. Details of the supplier of the safety data sheet:

Information about the distributor/importer:

MediaRange GmbH

Zum Quellenpark 29, 65812 Bad Soden am Taunus

Germany

Tel.: +49 (0) 6196 523 8180

1.3.1. Responsible person: Scott Krisztinkovics
E-mail: scott@mediarange.de

1.4. Emergency telephone number: *+49 (0) 6196 - 5238186 / Monday - Friday: 10:00 - 14:00*

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the mixture:

The product is a battery. Intended use of the product should not result in exposure to the chemical substances. In case of rupture, the below hazards exist.
Following data is for informative purposes only, calculated based on the weight percentage of the hazardous ingredients of the product.

Classification according to Regulation (EC) No 1272/2008 (CLP):

Acute toxicity (oral), Hazard Category 4 – H302

Skin corrosion/irritation, Hazard Category 1 – H314

Acute toxicity (inhalation), Hazard Category 4 – H332 (dusts and mists)

Specific target organ toxicity – Repeated exposure, Hazard Category 2 – H373

Hazardous to the aquatic environment – Chronic Hazard, Category 2 – H411

Hazard statements:

H302 – Harmful if swallowed.

H314 – Causes severe skin burns and eye damage.

H332 – Harmful if inhaled.

H373 – May cause damage to organs through prolonged or repeated exposure.

H411 – Toxic to aquatic life with long lasting effects.

2.2. Label elements:

In accordance with Regulation (EC) No 1907/2006 (REACH), the product is considered an article, for which a safety data sheet is not required. The following information is only indicative in order to ensure safe use of the product.

Hazard statements: Not applicable for the finished product as an article.

Precautionary statements: Not applicable for the finished product as an article.

2.3. Other hazards:

Physical and chemical hazards: See Section 10.

Health hazards: See Section 11.

Environmental hazards: See Section 12.

Results of PBT and vPvB assessment: No data available.

Endocrine disrupting property: Based on available data, it does not contain endocrine disruptors.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances:

Not applicable.

3.2. Mixtures:

Description	CAS number	EC number / ECHA list number	REACH registration number	Conc. (%)	Classification according to Regulation (EC) No 1272/2008 (CLP)		
					Pictogram, signal word code(s)	Hazard class and category code(s)	Hazard statement code(s)
Manganese dioxide Index number: 025-001-00-3	1313-13-9	215-202-6	-	41.73	GHS07 Warning	Acute Tox. 4 Acute Tox. 4	H332 H302
Graphite	7782-42-5	231-955-3	-	3.62	-	not classified	-
Potassium hydroxide Index number: 019-002-00-8	1310-58-3	215-181-3	-	8.26	GHS05 GHS07 Danger	Acute Tox. 4 Skin Corr. 1A	H302 H314
Steel	12597-69-2	603-109-7	-	19.27	-	not classified	-
Diaphragm paper	-	-	-	0.63	-	not classified	-
Zinc oxide Index number: 030-013-00-7	1314-13-2	215-222-5	-	0.20	GHS09 Warning	Aquatic Acute 1 Aquatic Chronic 1	H400 H410
Zinc powder (stabilized) Index number: 030-001-01-9	7440-66-6	231-175-3	-	16.69	GHS09 Warning	Aquatic Acute 1 Aquatic Chronic 1	H400 H410
Indium trihydroxide	20661-21-6	243-947-7	-	0.01	-	not classified	-
Octadecanoic acid, calcium salt	1592-23-0	216-472-8	-	1.16	-	not classified	-
Sealing ring	-	-	-	4.76	-	not classified	-
Nickel Index number: 028-002-00-7 Note S ₇	7440-02-0	231-111-4	-	1.54	GHS08 GHS07 Danger	Carc. 2 STOT RE 1 Skin Sens. 1	H351 H372 H317
Copper	7440-50-8	231-159-6	-	2.13	-	not classified	-
Indium	7440-74-6	231-180-0	-		-	not classified	-

Note S:

This substance may not require a label according to Article 17 (see Section 1.3 of Annex I) (Table 3).

Note 7:

Alloys containing nickel are classified for skin sensitisation when the release rate of 0,5 µg Ni/cm²/week, as measured by the European Standard reference test method EN 1811, is exceeded.

Specific concentration limits:

Potassium hydroxide (CAS: 1310-58-3):

Skin Corr. 1A; H314: C ≥ 5 %

Skin Corr. 1B; H314: 2 % ≤ C < 5 %
Skin Irrit. 2; H315: 0,5 % ≤ C < 2 %
Eye Irrit. 2; H319: 0,5 % ≤ C < 2 %

For the full text of hazard statements, see Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

General information: No special measures required.

INGESTION:

Measures:

- Do not induce vomiting.
- Get medical attention.

INHALATION:

Measures:

- Take the victim into fresh air.
- Apply artificial respiration if breathing is difficult.
- Seek medical attention.

SKIN CONTACT:

Measures:

- Remove the contaminated clothes and shoes.
- Immediately wash skin with water and soap and rinse thoroughly.
- Wash clothing and shoes before reuse.
- If irritation occurs, get medical attention.

EYE CONTACT:

Measures:

- Rinse eyes with plenty of water for several minutes while holding eyelids open.
- If irritation persists, get medical attention.

4.2. Most important symptoms and effects, both acute and delayed:

In case of rupture, the below hazards exist:

Harmful if swallowed.

Causes severe skin burns and eye damage.

Harmful if inhaled.

May cause damage to organs through prolonged or repeated exposure.

4.3. Indication of any immediate medical attention and special treatment needed:

No special treatment needed; treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media:

5.1.1. Suitable extinguishing media:

Choose extinguishing media depending on surrounding fire (e.g. dry powder, carbon dioxide).

5.1.2. Unsuitable extinguishing media:

No data available.

5.2. Special hazards arising from the substance or mixture:

Battery may burst and release hazardous decomposition products when exposed to fire.

Some may burn but none ignite readily. Containers may explode when heated. Some may be transported hot.

In case of fire, smoke and other combustion products may be formed; the inhalation of such combustion products can have serious adverse effects on health.

5.3. Advice for firefighters:

Wear impervious protective clothing and self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures:

6.1.1. For non-emergency personnel:

Allow only well-trained experts wearing suitable protective clothing to abide in the field of accident.

6.1.2. For emergency responders:

Use protective equipment.

Keep unprotected persons away.

Ensure adequate ventilation.

Remove sources of ignition.
Evacuate the area.

6.2. Environmental precautions:

Dispose of the spillage and the resulting waste according to the applicable environmental regulations. Do not allow the product and the resulting waste to enter sewers/soil/surface or ground water. Notify the respective authorities in accordance with local law in the case of environmental pollution immediately.

6.3. Methods and material for containment and cleaning up:

Sweep up using a method that does not generate dust.
Collect as much of the spilled product as possible and place it into a suitable waste container.
During handling and disposal, observe all national and local regulations.

6.4. Reference to other sections:

For further and detailed information see Sections 7, 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling:

Observe conventional hygiene precautions.
Avoid all personal contact, including inhalation.

Technical measures:

Wear protective equipment when the risk of exposure occurs.
Use in a well-ventilated area.
Prevent the accumulation of high concentrations in hollows and sumps.

Precautions against fire and explosion:

Avoid mechanical damage of the battery.
Do not open or disassemble.
Batteries may explode or cause burns, if disassembled, crushed or exposed to fire or high temperatures.
Do not short circuit or install with incorrect polarity.

7.2. Conditions for safe storage, including any incompatibilities:

Technical measures and storage condition:

Store in a cool, dry and well-ventilated place.
Keep away from heat.
Avoid long-term exposure to sunlight.

Incompatible materials: See Section 10.5

Packaging material: No special prescriptions.

7.3. Specific end use(s):

No specific instructions available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters:

Occupational exposure limit values (Commission Directive (EC) No 2000/39 of 8 June 2000) :

The components of the mixture are not regulated with exposure limit value.

DNEL values		Oral exposure		Dermal exposure		Inhalative exposure	
		Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)	Short term (acute)	Long term (chronic)
Consumer	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data
Worker	Local	no data	no data	no data	no data	no data	no data
	Systemic	no data	no data	no data	no data	no data	no data

PNEC values		
Compartment	Value	Note(s)
Freshwater	no data	no notes
Marine water	no data	no notes
Freshwater sediment	no data	no notes
Marine water sediment	no data	no notes
Sewage Treatment Plant (STP)	no data	no notes
Intermittent release	no data	no notes
Secondary poisoning	no data	no notes
Soil	no data	no notes

8.2. **Exposure controls:**

In case of a hazardous material with no controlled concentration limit it is the employer's duty to keep concentration levels down to a minimum achievable by existing scientific and technological means, where the hazardous substance poses no harm to workers.

8.2.1. **Appropriate engineering controls:**

In pursuance of work is proper foresight needed to avoid spilling onto clothes and floors and to avoid contact with eyes and skin.

8.2.2. **Individual protection measures, such as personal protective equipment:**

Observe the general safety regulations when handling chemicals.

Keep away from food, beverages and animal feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of the work.

The information regarding personal protective equipment is only for informative purposes. A complete risk assessment is required before the use of the product for the determination of the appropriate personal protective equipment, taking local circumstances into account.

1. **Eye/face protection:** Use appropriate protective glasses or eye protection combined with respiratory protection (EN 166).

2. **Skin protection:**

a. **Hand protection:** Use appropriate protective gloves to reduce skin contact (EN 374).

b. **Other:** For a large number of battery leakages, wear chemical-resistant protective clothing. If the working environment requires, use suitable protective clothing to minimize skin contact. The type of protective equipment must be chosen based on the concentration and the amount of certain hazardous substances in the workplace.

3. **Respiratory protection:** Use appropriate protective mask. For a large number of battery leakages, wear self-contained breathing apparatus.

4. **Thermal hazards:** No thermal hazards known.

8.2.3. **Environmental exposure controls:**

No specific prescription.

The requirements detailed in Section 8 assume skilled work under normal conditions and usage of the product for appropriate aims. If conditions differ from normal or work is carried out under extreme conditions, an expert's advice is necessary before deciding upon further protective measures.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. **Information on basic physical and chemical properties:**

Parameter	Value / Test method / Remarks
1. Physical state	cylindrical shape
2. Colour	silver
3. Odour, odour threshold	no data*
4. Melting point/freezing point	no data*
5. Boiling point or initial boiling point and boiling range	no data*
6. Flammability	no data*
7. Lower and upper explosion limit	no data*
8. Flash point	no data*
9. Auto-ignition temperature	no data*
10. Decomposition temperature	no data*
11. pH	no data*
12. Kinematic viscosity	no data*
13. Solubility in water in other solvents	no data*
14. Partition coefficient n-octanol/water (log value)	no data*
15. Vapour pressure	no data*
16. Density and/or relative density	no data*
17. Relative vapour density	no data*
18. Particle characteristics	no data*

9.2. **Other information:**

9.2.1. **Information with regard to physical hazard classes:**

No further data available or not applicable for the product.

9.2.2. **Other safety characteristics:**

Voltage: 1.5 V

Electric capacity: 724 mAh

*: The manufacturer did not carry out any tests on this parameter for the product or the results of the tests are not available at the time of publication of the data sheet, or the property is not applicable for the product.

SECTION 10: STABILITY AND REACTIVITY

- 10.1. Reactivity:**
No reactivity known.
- 10.2. Chemical stability:**
Stable under normal conditions.
- 10.3. Possibility of hazardous reactions:**
No hazardous reactions known.
- 10.4. Conditions to avoid:**
Avoid flames, sparks and other sources of ignition.
Avoid contact with incompatible materials.
- 10.5. Incompatible materials:**
Oxidizing agents, acids, bases.
- 10.6. Hazardous decomposition products:**
Carbon monoxide, carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

- 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008:**
Acute toxicity: Based on available data, the classification criteria are not met.
Skin corrosion/irritation: Based on available data, the classification criteria are not met.
Serious eye damage/irritation: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation: Based on available data, the classification criteria are not met.
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
Reproductive toxicity: Based on available data, the classification criteria are not met.
STOT-single exposure: Based on available data, the classification criteria are not met.
STOT-repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.
- 11.1.1. Summaries of the information derived from the test conducted:**
No data available.
- 11.1.2. Relevant toxicological properties:**
Data about the ingredients:
Acute toxicity:
Potassium hydroxide (CAS: 1310-58-3):
LD₅₀ (oral, rat): 284 mg/kg
Zinc oxide (CAS: 1314-13-2):
LD₅₀ (oral, rat): > 5000 mg/kg
LC₅₀ (inhalation, dusts/mists, rat): > 5.7 mg/l
Zinc powder (stabilized) (CAS: 7440-66-6):
LD₅₀ (oral, rat): > 2000 mg/kg
Nickel (CAS: 7440-02-0):
LD₅₀ (oral, rat): > 9000 mg/kg
Indium (CAS: 7440-74-6):
LD₅₀ (oral, rat): 4200 mg/kg
- 11.1.3. Information on likely routes of exposure:**
Ingestion, inhalation, skin contact, eye contact.
- 11.1.4. Symptoms related to the physical, chemical and toxicological characteristics:**
No data available.
- 11.1.5. Delayed and immediate effects as well as chronic effects from short and long-term exposure:**
Article. No data available.
- 11.1.6. Interactive effects:**
No data available.
- 11.1.7. Absence of specific data:**
No information.
- 11.2. Information on other hazards:**
Endocrine disrupting properties:
Endocrine disrupting property: Based on available data, it does not contain endocrine disruptors.

Other information:

The product is an article; no hazardous substances are released during normal use. Nevertheless, in case of fire, explosion, misuse or improper disposal which leads to the damage of the product, hazardous substances may be released.

SECTION 12: ECOLOGICAL INFORMATION

- 12.1. Toxicity:**
Toxic to aquatic life with long lasting effects.
Data about the ingredients:
Zinc oxide (CAS: 1314-13-2):
LC₅₀ (Daphnia magna): 0.098 mg/l/48h
Zinc powder (stabilized) (CAS: 7440-66-6):
ErC₅₀ (Pseudokirchneriella subcapitata): 0.15 mg/l/72h
- 12.2. Persistence and degradability:**
No data available.
- 12.3. Bioaccumulative potential:**
No data available.
- 12.4. Mobility in soil:**
No data available.
- 12.5. Results of PBT and vPvB assessment:**
No data available.
- 12.6. Endocrine disrupting properties:**
Endocrine disrupting property: Based on available data, it does not contain endocrine disruptors.
- 12.7. Other adverse effects:**
No data available.

SECTION 13: DISPOSAL CONSIDERATIONS

- 13.1. Waste treatment methods:**
Disposal according to the local regulations.
- 13.1.1. Information regarding the disposal of the product:**
Dispose of in accordance with applicable local, regional and national regulations.
List of Waste Code:
No waste disposal key according to the List of Waste Code (LoW code) can be determined for this product, as only the purpose of application defined by the user enables an allocation. The LoW code number has to be determined after a discussion with a waste disposal specialist.
- 13.1.2. Information regarding the disposal of the packaging:**
Dispose of in accordance with applicable regulations.
- 13.1.3. Physical/chemical properties that may affect waste treatment options shall be specified:**
No data available.
- 13.1.4. Sewage disposal:**
No data available.
- 13.1.5. Special precautions for any recommended waste treatment:**
No data available.

SECTION 14: TRANSPORT INFORMATION

IMDG; IATA:

Not subject to the conventions of carriage of dangerous goods.

- 14.1. UN number or ID number:**
No UN Number.
- 14.2. UN proper shipping name:**
No proper shipping name.
- 14.3. Transport hazard class(es):**
No transport hazard classes.
- 14.4. Packing group:**
No packing group.
- 14.5. Environmental hazards:**
Marine pollutant: No.
- 14.6. Special precautions for user:**

Any electrical battery or battery-powered device, equipment or vehicle having the potential of a dangerous evolution of heat must be prepared for transport so as to prevent

- a) short circuits (e.g. in the case of batteries, by the effective insulation of the exposed terminals, or, in the case of equipment, by disconnection of the battery and protection the the exposed terminals);
- b) accidental activation.

14.7. Maritime transport in bulk according to IMO instruments:

Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture:

REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive (EC) No 1999/45 and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive (EEC) No 76/769 and Commission Directives (EEC) No 91/155, (EEC) No 93/67, (EC) No 93/105 and (EC) No 2000/21

REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives (EEC) No 67/548 and (EC) No 1999/45, and amending Regulation (EC) No 1907/2006

COMMISSION REGULATION (EU) 2020/878 of 18 June 2020 amending Annex II to Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

15.2. Chemical safety assessment: No information.

SECTION 16: OTHER INFORMATION

Information regarding the revision of the safety data sheet: No information.

Literature references / data sources:

Safety data sheet issued by the manufacturer (04. 01. 2021/EN).

Methods used for the classification according to Regulation (EC) No 1272/2008:

No classification is required, as the product is an article.

The product is a battery. Intended use of the product should not result in exposure to the chemical substances. In case of rupture, the below hazards exist.

Relevant hazard statements (code and full text) of Sections 2 and 3:

H302 – Harmful if swallowed.

H314 – Causes severe skin burns and eye damage.

H315 – Causes skin irritation.

H317 – May cause an allergic skin reaction.

H319 – Causes serious eye irritation.

H332 – Harmful if inhaled.

H351 – Suspected of causing cancer *<state route of exposure if it is conclusively proven that no other routs of exposure cause the hazard>*.

H372 – Causes damage to organs *<or state all organs affected, if known>* through prolonged or repeated exposure *<state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>*.

H373 – May cause damage to organs through prolonged or repeated exposure.

H400 – Very toxic to aquatic life.

H410 – Very toxic to aquatic life with long lasting effects.

H411 – Toxic to aquatic life with long lasting effects.

Training advice: No data available.

Full text of the abbreviations in the safety data sheet:

ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road.

ATE: Acute Toxicity Estimate.

AOX: Adsorbable organic halides.

BCF: Bioconcentration factor.

BOD: Biological Oxygen Demand.

CAS number: Chemical Abstract Service number.
CLP: Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures.
CMR effects: Carcinogenic, mutagenic, reprotoxic effects.
COD: Chemical Oxygen Demand.
CSA: Chemical Safety Assessment.
CSR: Chemical Safety Report.
DNEL: Derived-No-Effect-Level.
ECHA: European Chemical Agency.
EC: European Community.
EC number: EINECS and ELINCS numbers (see also EINECS and ELINCS).
EEC: European Economic Community.
EEA: European Economic Area (EU + Iceland, Liechtenstein and Norway).
EINECS: European Inventory of Existing Commercial Chemical Substances.
ELINCS: European List of Notified Chemical Substances.
EN: European Norm.
EU: European Union.
EWC: European Waste Catalogue (replaced by LoW – see below).
GHS: Globally Harmonized System of Classification and Labelling of Chemicals.
IATA: International Air Transport Association.
ICAO-TI: Technical Instructions for the Safe Transport of Dangerous Goods by Air.
IMDG: International Maritime Dangerous Goods.
IMO: International Maritime Organization.
IMSBC: International Maritime Solid Bulk Cargoes.
IUCLID: International Uniform Chemical Information Database.
IUPAC: International Union of Pure and Applied Chemistry.
Kow: n-Octanol - Water Partition Coefficient.
LC50: Lethal concentration resulting in 50 % mortality.
LD50: Lethal dose resulting in 50 % mortality (median lethal dose).
LoW: List of Waste.
LOEC: Lowest Observed Effect Concentration.
LOEL: Lowest Observed Effect Level.
NOEC: No Observed Effect Concentration.
NOEL: No Observed Effect Level.
NOAEC: No Observed Adverse Effect Concentration.
NOAEL: No Observed Adverse Effect Level.
OECD: Organization for Economic Cooperation and Development.
OSHA: Occupational Safety and Health Administration.
PBT: Persistent, Bioaccumulative and Toxic.
PNEC: Predicted No Effect Concentration.
QSAR: Quantitative Structure Activity Relationship.
REACH: Regulation 1907/2006/EC concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals.
RID: Regulations Concerning the International Transport of Dangerous Goods by Rail.
SCBA: Self Contained Breathing Apparatus.
SDS: Safety Data Sheet.
STOT: Specific Target Organ Toxicity.
SVHC: Substances of Very High Concern.
UN: United Nations.
UVCB: Chemical Substances of Unknown or Variable Composition, Complex Reaction Products and Biological Materials.
VOC: Volatile Organic Compound.
vPvB: very Persistent and very Bioaccumulative.

This safety data sheet had been prepared on the basis of information provided by the manufacturer/supplier and conform to the relevant regulations. The information, data and recommendations contained herein are provided in good faith, obtained from reliable sources and believed to be true and accurate as of the date issued; however, no representation is made as to the comprehensiveness of the information.

The SDS shall be used only as a guide for handling the product; in the course of handling and using the product other considerations may arise or be required.

Users are cautioned to determine the appropriateness and applicability of the above information to their particular circumstances and purposes and assume all risk associated with the use of this product.

It is the responsibility of the user to fully comply with local, national and international regulations concerning the use of this product.