

Safety Data Sheet

Acc. to OSHA HCS (29 CFR 1910.1200)

Printing date: October 29, 2018

Revision: October 29, 2018

1 Identification

- **Product identifier**
- **Trade name: Alkaline Manganese Button Cell (Mercury Free)**
- **Product code:** 20475
- **Recommended use and restriction on use**
- **Recommended use:** Battery
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
ITW Global Tire Repair, Inc.
125 Venture Drive, Suite 210, San Luis Obispo, CA 93401
Tel (805) 489-0490
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
The product is not classified as hazardous according to the Globally Harmonized System (GHS).
- **Additional information:**
Product is a sealed package as delivered. Exposure to contents is unlikely when stored and used according to manufacturer's instructions. Adverse health effects are not expected from normal storage and use.
Note: Leaking cells pose health hazards: see Sections 4 and 11. Intentional abuse of cells or batteries increases the risk of harm or damage to the product, to the user, and to surrounding materials and personnel. Do not attempt to open sealed cells or batteries. Do not intentionally short-circuit cells or batteries. Do not expose these products to temperatures exceeding the maximum manufacturers rating. Do not dispose of cells/batteries in landfills. Please follow all manufacturer guidelines in the use, storage, and disposal of these products. Consult manufacturer in cases of questions involving specific product usage.
- **Label elements**
The product is not classified as hazardous according to OSHA GHS regulations within the United States.
- **GHS label elements:** Not regulated.
- **Hazard pictograms:** Not regulated.
- **Signal word:** Not regulated.
- **Hazard statements:** Not regulated.
- **Precautionary statements:** Not regulated.
- **Other hazards:** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures

· **Components:**

7439-89-6	Iron	30-62%
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1313-13-9	Manganese dioxide	 STOT RE 2, H373  Acute Tox. 4, H302; Acute Tox. 4, H332	18-37%
7440-66-6	zinc	 Pyr. Sol. 1, H250; Water-react. 1, H260	8-13%
1310-58-3	Potassium hydroxide	 Met. Corr.1, H290; Skin Corr. 1A, H314  Acute Tox. 4, H302	3-6%
7782-42-5	Graphite		1-6%

• **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
 For the wording of the listed Hazard Statements, refer to section 16.
 There is no exposure to hazardous ingredients during normal use.

4 First-aid measures

• **Description of first aid measures**

• **General information:**

Information references exposures to battery contents, and not exposures to whole units. Exposures to whole units are unlikely to produce health hazards.

• **After inhalation:**

Unlikely route of exposure.
 If exposed to product contents:
 Supply fresh air; consult doctor in case of complaints.

• **After skin contact:**

Unlikely route of exposure.
 If exposed to product contents:
 Immediately rinse with water.
 If skin irritation is experienced, consult a doctor.
 Seek medical treatment if any skin damage has occurred.

• **After eye contact:**

If exposed to product contents:
 Unlikely route of exposure.
 Protect unharmed eye.
 Remove contact lenses if worn.
 Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

• **After swallowing:** Do not induce vomiting; immediately call for medical help.

• **Most important symptoms and effects, both acute and delayed:** No relevant information available.

• **Danger:** No relevant information available.

• **Indication of any immediate medical attention and special treatment needed:**

Note to Physician: Published reports recommend removal from the esophagus be done endoscopically (under direct visualization). Batteries beyond the esophagus need not be retrieved unless there are signs of injury to the GI tract or a large diameter battery fails to pass the pylorus. If asymptomatic, follow-up xrays are necessary only to confirm the passage of larger batteries. Confirmation by stool inspection is preferable under most circumstances. For information on treatment, telephone (202) 625-3333 collect, day or night. Various corrosive, harmful or toxic substances are possible in certain cases. These substances may include lithium and/or fluoride salts; specific antidotes may be required in cases of ingestion for lithium salts and in cases of oral/dermal/inhalation contact with fluorides. If fluoride contact is suspected, calcium salts may be of value in treatment. Do not give ipecac.

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5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
 - Fire-extinguishing powder
 - Sand
 - Water in flooding quantities.
- **For safety reasons unsuitable extinguishing agents:** No relevant information available.
- **Special hazards arising from the substance or mixture**
 - Hazardous gases may be released if heated above the decomposition point.
- **Advice for firefighters**
- **Protective equipment:**
 - Wear self-contained respiratory protective device.
 - Wear fully protective suit.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
 - Ensure adequate ventilation.
 - If containers are leaking, use respiratory protective device against the effects of fumes/dust/aerosol.
- **Environmental precautions** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up**
 - Use inert material (clay, sawdust, kaolin) to absorb material and sweep up. Prevent spilled material from entering sewers, drains, bodies of water.
 - Pick up mechanically.
 - Dispose of the collected material according to regulations.
- **Reference to other sections**
 - See Section 7 for information on safe handling.
 - See Section 8 for information on personal protection equipment.
 - See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
 - Information is only applicable to product contents, and not to product as normally supplied. This information is applicable to damaged, leaking, or spilled product as contact with contents is possible under these conditions.
 - Keep away from open flames or temperatures exceeding manufacturer ratings. **DO NOT ATTEMPT TO OPEN SEALED CELLS OR BATTERIES – BATTERY CONTENTS MAY PRESENT SERIOUS SAFETY AND HEALTH HAZARDS. SHORT-CIRCUITING THE TERMINALS OF A DEVICE MAY RESULT IN DAMAGE TO DEVICE AND ANY NEARBY OBJECTS OR PERSONNEL.**
- **Information about protection against explosions and fires:**
 - Prevent impact and friction.
 - Substance/product is ignitable under certain conditions.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:**

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Store in a dry, well-ventilated place.
 Do not use or store near open flame.
 Avoid extreme temperatures; battery may rupture and release contents.
 Do not store and transport with incompatible materials.
 Store individual batteries or cells only in approved packaging in order to avoid inadvertent short circuits, as this may result in damage to device, nearby objects, personnel, or all of the above.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.
 Do not store together with acids.

· **Further information about storage conditions:** Store in dry conditions.

· **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

7439-89-6 Iron

EV (Canada)	Long-term value: 1* 5** mg/m ³ as iron;*salts, water-soluble;**welding fume
LMPE (Mexico)	Long-term value: 1 mg/m ³

1313-13-9 Manganese dioxide

PEL (USA)	Ceiling limit value: 5 mg/m ³ as Mn
REL (USA)	Short-term value: 3 mg/m ³ Long-term value: 1 mg/m ³ as Mn
TLV (USA)	Long-term value: 0.02* 0.1** mg/m ³ as Mn; *respirable **inhalable fraction
EL (Canada)	Long-term value: 0.2; 0.02* mg/m ³ as Mn; R, *respirable
LMPE (Mexico)	Long-term value: 0.2 mg/m ³ como Mn

7782-42-5 Graphite

PEL (USA)	Long-term value: 15 mppcf* mg/m ³ *impinger samples counted by light field techn.
REL (USA)	Long-term value: 2.5* mg/m ³ *respirable dust
TLV (USA)	Long-term value: 2* mg/m ³ all forms except graphite fibers;*resp. fraction
EL (Canada)	Long-term value: 2 mg/m ³ respirable
EV (Canada)	Long-term value: 2 mg/m ³ respirable
LMPE (Mexico)	Long-term value: 2* mg/m ³ *fracción respirable

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1310-58-3 Potassium hydroxide

REL (USA)	Ceiling limit value: 2 mg/m ³
TLV (USA)	Ceiling limit value: 2 mg/m ³
EL (Canada)	Ceiling limit value: 2 mg/m ³
EV (Canada)	Ceiling limit value: 2 mg/m ³
LMPE (Mexico)	Ceiling limit value: 2 mg/m ³

· **Exposure controls**

· **General protective and hygienic measures:**

Information is only applicable to product contents, and not to product as normally supplied. This information is applicable to damaged, leaking, or spilled product as contact with contents is possible under these conditions.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

· **Engineering controls:** No relevant information available.

· **Breathing equipment:**

Not required under normal conditions of use.

For large spills, respiratory protection may be advisable.

· **Protection of hands:**

Not required under normal conditions of use.

Wear protective gloves to handle contents of damaged or leaking units.

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

· **Eye protection:**

Not required for normal handling. Wear protective eyewear while handling damaged or leaking product.

· **Body protection:**

Not required under normal conditions of use.

Protection may be required for spills.

· **Limitation and supervision of exposure into the environment** No special requirements.

· **Risk management measures** No special requirements.

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **Appearance:**

· **Form:** Solid metal container containing liquid and solid contents.

· **Color:** Silver-colored

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

· **Melting point/Melting range:** Not determined.

· **Boiling point/Boiling range:** Not determined.

· **Flash point:** The product is not flammable.

· **Flammability (solid, gaseous):** Not determined.

· **Auto-ignition temperature:** Not determined.

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· Decomposition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	Not determined.
Upper:	Not determined.
· Oxidizing properties:	Not determined.
· Vapor pressure:	Not determined.
· Density:	
Relative density:	Not determined.
Vapor density:	Not applicable.
Evaporation rate:	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
Hazardous reactions generally occur with contents of leaking batteries only.
Strong exothermic reaction with acids.
Toxic fumes may be released if heated above the decomposition point.
- **Conditions to avoid** Keep away from heat and direct sunlight.
- **Incompatible materials** Reducing agents, combustible materials, moisture, contact with metals.
- **Hazardous decomposition products**
Contact with decomposition products does not normally occur; information is applicable only to damaged devices.
Carbon monoxide and carbon dioxide

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** None.
- **Primary irritant effect:**

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- **On the skin:**
None from normal handling. Symptoms only seen in exposure to leaking articles.
Strong caustic effect on skin and mucous membranes.
- **On the eye:**
None from normal handling. Symptoms only seen in exposure to leaking articles.
Causes serious eye damage.
- **Sensitization:** Based on available data, the classification criteria are not met.

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer):**

7439-92-1	Lead	2B
7440-43-9	Cadmium (non-pyrophoric)	1

· **NTP (National Toxicology Program):**

7439-92-1	Lead	R
7440-43-9	Cadmium (non-pyrophoric)	K

· **OSHA-Ca (Occupational Safety & Health Administration):**

7440-43-9	Cadmium (non-pyrophoric)
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- **Probable route(s) of exposure:** Ingestion.
- **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.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity**
The product contains materials that are harmful to the environment.
Toxic to aquatic life with long lasting effects.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information**
- **General notes:** Do not allow product to reach ground water, water course or sewage system.
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal.

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disposal for hazardous and nonhazardous wastes. Residual materials should be treated as hazardous.

- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT, ADR, IMDG, IATA** Not regulated.
- **UN proper shipping name**
- **DOT, ADR, IMDG, IATA** Not regulated.
- **Transport hazard class(es)**
- **DOT, ADR, IMDG, IATA**
- **Class** Not regulated.
- **Packing group**
- **DOT, ADR, IMDG, IATA** Not regulated.
- **Environmental hazards** Not applicable.
- **Special precautions for user** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

· **Section 302 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

Substance / component not listed individually, but listed under family group as Zinc salts.

1313-13-9	Manganese dioxide
7440-66-6	zinc

· **TSCA (Toxic Substances Control Act)**

All ingredients are listed.

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

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7439-92-1	Lead	
7440-43-9	Cadmium (non-pyrophoric)	
· Chemicals known to cause developmental toxicity for females:		
7439-92-1	Lead	
· Chemicals known to cause developmental toxicity for males:		
7439-92-1	Lead	
7440-43-9	Cadmium (non-pyrophoric)	
· Chemicals known to cause developmental toxicity:		
7439-92-1	Lead	
7440-43-9	Cadmium (non-pyrophoric)	
7439-97-6	mercury	
· EPA (Environmental Protection Agency):		
1313-13-9	Manganese dioxide	D
7440-66-6	zinc	D, I, II
· IARC (International Agency for Research on Cancer):		
7439-92-1	Lead	2B
7440-43-9	Cadmium (non-pyrophoric)	1
7439-97-6	mercury	3

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** October 29, 2018 / -

· **Abbreviations and acronyms:**

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

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Pyr. Sol. 1: Pyrophoric solids – Category 1

Water-react. 1: Substances and mixtures which in contact with water emit flammable gases – Category 1

Met. Corr. 1: Corrosive to metals – Category 1

Acute Tox. 4: Acute toxicity – Category 4

Skin Corr. 1A: Skin corrosion/irritation – Category 1A

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

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Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN:
978-0-07-176923-5.
Safety Data Sheets, Individual Manufacturers

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ChemTel Inc.
1305 North Florida Avenue
Tampa, Florida USA 33602-2902
Toll Free North America 1-888-255-3924 Intl. +01 813-248-0573
Website: www.chemtelinc.com