



# SAFETY DATA-SHEET

BATTERIES FOR 814-045 RAYTEMP INFRARED THERMOMETER

MSDS (LR20, LR14, LR6, LR03, LR1, 6LF22, 6LR61)

These products are hermetically sealed state in a vessel, and are exempt from Safety Data Sheet regulations. However, this Safety Data Sheet provides you with referential information to use the products safely.

## 1. PRODUCTS AND COMPANY IDENTIFICATION

<b>Date of issue</b>	18 <sup>th</sup> March 2021 (based on manufacturers SDS dated 1st January 2021).
<b>Product name</b>	Batteries for 814-045 Raytemp Infrared Thermometer
<b>Manufacturer/Supplier</b>	Electronic Temperature Instruments Ltd – SDS based on manufacturer's information. Easting Close, Worthing, West Sussex BN14 8HQ t: +44(0)1903 202 151 e: sales@etiltd.com

## 2. HAZARDS IDENTIFICATION

<b>GHS Classification</b>	Not applicable
<b>Toxicity</b>	If leaked electrolyte from the cell/battery adheres to the skin it may cause damage to the skin. In addition, if eyes become contaminated it can cause damage to eyes, even loss of sight.
<b>Hazard</b>	There is a risk of explosion if cells/batteries are thrown into fire or heated. When stacking or jumbling cells/batteries this may cause heat generation and explosion by external short circuits.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	CAS#	PRTR	Weight/ Content
Manganese dioxide (MnO <sub>2</sub> )	1313-13-9	1-412	25~45wt%
Graphite (C)	7782-42-5	Not regulated	1~6wt%
Potassium hydroxide (KOH)	1310-58-3	Not regulated	4~15wt%
Zinc (Zn)	7440-66-6	Not regulated	5~25wt%

## 4. FIRST AID MEASURES

(In case of electrolyte leakage from the cell/battery)

<b>Inhalation of electrolyte fume</b>	If vapours or fumes from vented or leaked batteries cause irritation, move to fresh air immediately. If unwell, seek medical attention.
<b>Skin contact by electrolyte</b>	If content adheres to skin immediately wash skin with large amount of clean water and soap. If in pain, seek medical attention.
<b>Eyes contact by electrolyte</b>	If the content enters eyes, rinse eyes with a large amount of clean water for more than 15 minutes, and immediately seek medical attention.
<b>Ingestion of electrolyte</b>	If a cell/battery is swallowed, immediately seek medical attention.

## 5. FIRE FIGHTING MEASURES

<b>Fire extinguishers</b>	Powder extinguisher, foam extinguisher, carbon dioxide gas extinguisher, large amount of dry sand.
<b>Specific fire fighting method</b>	In the initial state of a fire, move cells/batteries from near the fire source, to a safe location. At that time, work at a windward location, as far as possible, and be sure to wear the protective equipment. (Fireproof gloves, protective mask, protective eye wear, protective clothing).
<b>Protection of fire fighting personnel</b>	Wear protective equipment (fireproof gloves, protective mask, protective eye wear, protective clothing) for keeping safe. (If possible, use atmosphere-supplying respirator).

## 6. ACCIDENTAL REMOVING MEASURES

The cell/battery hermetically contains constituents in a vessel, so contents normally may not leak out. However, if the contents leak because of a mechanical or electrical stress, wipe with liquid-boric to absorb it, and collect in a vessel. After that, flush the site with a large amount of water. At that time, be sure to wear protective gloves and protective eye wear.

## 7. HANDLING AND STORAGE

<b>Handling</b>	Do not solder a cell/battery body with another conductor. Do not throw into fire, disassemble, heat, dent, deform, charge nor drop a battery. Do not dip a cell/battery in water or seawater.
<b>Storage</b>	Store cells/batteries without direct sunlight, high temperature, high humidity, rain, dew, etc., and select a storage location with a temperature as low as possible (preferable temperature 10-25 °C and relative humidity 70% or less). In addition, keep cells away from dangerous matter such as combustible or ignitable materials. Absolutely never place a cell/battery in contact with a combustible or conductive substance. Prepare appropriate fire fighting equipment.
<b>Note</b>	See handling and storing precautions described in the product. Do not contact cell/battery terminals between each other, or catalogue, specification, etc.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

<b>Protection of respiratory</b>	Not required in a normal operating state.
<b>Protection of eyes</b>	Not required in a normal operating state.
<b>Other protective tools etc.</b>	Not required in a normal operating state.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Shape</b>	Cylindrical. Contents are sealed in a stiff stainless steel vessel.
<b>pH</b>	Not applicable because a cell/battery is not soluble with water.
<b>Boiling point/boiling range</b>	No information
<b>Melting point</b>	No information
<b>Decomposition temperature</b>	No information
<b>Flash point</b>	No information

## 10. STABILITY & REACTIVITY

If a number of cells/batteries are jumbled without insulating terminals, they may short and possibly cause electrolyte leakage, generate heat, and rupture. When the cell/battery is charged, the electrolytic solution or the like may suddenly spurt out due to the generation of gas from the inside of the cell/battery. There is also the possibility of rupture. If the cell/battery is heated or thrown into a fire, it may explode and splash the electrolyte. If the cell/battery is disassembled, it may short and possibly cause electrolyte leakage, generate heat, and rupture.

## 11. TOXICOLOGICAL INFORMATION

Under normal use there is no toxicity because chemical substances are hermetically sealed in a metal vessel.

## 12. ECOLOGICAL INFORMATION

No information supplied as Cells/Batteries.

## 13. DISPOSAL CONSIDERATIONS

Disposal of the substance should be done according to the laws and regulations.

Although used cells/batteries can be discarded basically as "Non burnable rubbish" some local governments sort and collect them at their own discretion. Therefore, observe instructions of the government you belong to, to dispose of the substance.

Keep the following discarding precautions:

- Even a used cell/battery sometimes stores electric energy. Therefore, to prevent the cell/battery from short-circuit, isolate cells/batteries from each other by a method such as taping +, - terminals of cells batteries, or using the individual housing case of a cell/battery.
- Packing cells/batteries so that they are not shorted, and prevent the package from being wetted.
- If cells/batteries must be discarded in a country other than Japan, observe the instructions of the country and local government.
- The user as a business entity must contract with a firm specialising in disposing of industrial waste, and appropriately discard the substance.

## 14. TRANSPORTATION INFORMATION

### Handling

When transporting cells/batteries, avoid high temperatures, high humidity and condensation. Pack the cell/battery so that it does not short-circuit, and fix it so that the load does not collapse. Cell/Batteries should be stored at room temperature (45 ° C or less: 10-25 ° C recommended) with low temperature changes and a relative humidity of 70% or less. Handle the container with care and do not subject it to shocks that could leave dents in the cell/battery.

### UN Number and UN Class

Not applicable (**Not Dangerous Goods**)

## 15. REGULATORY INFORMATION

**The laws and ordinances about the cell/battery shall obey the latest laws and ordinances.**

- EU Battery Directive (2006/66/EC, 2013/56/EU) (Europe)
- Regulation (EC)No.1907/2006 on the Registration, Evaluation, Authorization and Restriction of Chemicals REACH) (Europe)
- Act on Preventing Environmental Pollution of Mercury (Japan)

## 16. OTHER INFORMATION

The cells/batteries fall in the category of "Article" defined by EPA (U.S. Environment Protection Agency), and chemical substances used in a cell/battery satisfy the application exemption conditions as part of "Article," so the cells/batteries are not regulated by TSCA.

Please take appropriate measures according to individual conditions, uses, and usages before using. In addition, the contents of this description were created based on the materials and information available to us at the time of creation, and may be revised to new information.

SDS based on manufacturer's information. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

**Electronic Temperature Instruments Ltd**  
**Worthing · West Sussex · BN14 8HQ**  
**01903 202151 · sales@etilt.com · etilt.com**