

i-ALERT[®]3

Sensor Battery Pack

Safety Data Sheet

i-ALERT[®]

i-ALERT3 Sensor Battery Pack Safety Data Sheet-2022 1216

1. Identification of the product and supplier

Product	i-ALERT3 Sensor Battery Pack
Manufacturer	ITT Goulds Pumps, Inc.
Address	240 Fall Street, Seneca Falls, NY 13148, U.S.A.
Telephone	+1(315) 568-7808

2. Composition and information about the ingredients

The i-ALERT3 sensor contains a Thin cell Lithium Manganese Dioxide battery (Li-MnO₂) of maximum total weight 16.6g.

	Appr . Percent of Total Weight (%)	Chemical Abstracts Service #
Lithium (Li)	1.5~6	7439-93-2
Ethyl Methyl Carbonate (C ₄ H ₈ O ₃)	4.5~7.5	623-53-0
Ethylene Carbonate (C ₃ H ₄ O ₃)	3~5.5	96-49-1
Propylene Carbonate (C ₃ H ₆ CO ₃)	2.5~4.5	108-32-7
Bis(trifluoromethane)sulfonamide lithium (LiTFSi)	2~4	90076-65-6
Manganese Dioxide (MnO ₂)	70~80	1313-13-9

3. Hazards Identification

Do not short circuit, recharge, puncture, incinerate, crush, immerse, force discharge or expose to temperatures above the declared operating temperature range of the product.

Risk of fire or explosion. The Lithium-Manganese dioxide batteries described in this Product Safety Data Sheet are sealed units which are not hazardous when used according to the recommendations of the manufacturer.

Under normal conditions of use, the electrode materials and electrolyte they contain are not exposed to the outside, provided the battery integrity is maintained and seals remain intact. Risk of exposure only in case of abuse (mechanical, thermal, electrical) which leads to the activation of safety valves and/or the rupture of the battery containers. Electrolyte leakage or battery vent/explosion/fire may follow, depending upon the circumstances.

4. First aid measures

Inhalation	Remove from exposure, rest and keep warm. In severe cases, obtain medical attention.
Skin contact	Wash off skin thoroughly with tap water. Remove contaminated clothing and wash before reuse. In severe cases, obtain medical attention.
Eye contact	Irrigate eye thoroughly with water for at least 15 minutes. Obtain medical attention.
Ingestion	Wash out mouth thoroughly with water and give plenty of water to drink. Obtain medical attention.
Further treatment	All cases of eye contamination, persistent skin irritation and casualties who have swallowed this substance or been affected by breathing its vapors should be seen by a doctor.

5. Fire-fighting measures

- CO₂ extinguishers or copious quantities of water-based foam can be used to cool down burning Li-MnO₂ cells and batteries, as long as the extent of the fire has not progressed to the point that the Lithium metal they contain is exposed.
- Do not use for this purpose sand, dry powder or soda ash, graphite powder or fire blankets.
- Use only metal (Class D) extinguishers on raw lithium.
- Extinguishing Media: Use water or CO₂ on burning Li-MnO₂ cells or batteries and class D fire extinguishing agent only on raw lithium.

6. Accidental release measures

- Do not breathe vapors or touch liquid with bare hands.
- If the skin has come into contact with the electrolyte, it should be washed thoroughly with water.
- Earth or sand should be used to absorb the exudation. Seal the leaking battery and earth in a heavy-duty polythene bag and dispose of as Special Waste in accordance with local regulations.





7. Handling and storage

Handling	Do not short circuit or expose to temperatures above the temperature rating of battery. Do not recharge, over-discharge, force discharge, immerse, puncture or crush.
Storage	Store in a cool (preferably below 30°C / 86°F) place. Elevated temperatures can result in shortened battery life and degrade performance. Do not store batteries in high humidity environments for long periods of times.
Other:	Lithium Manganese dioxide batteries are not rechargeable and should not be tentatively charged.

Follow Manufacturers recommendations regarding maximum recommended currents and operating temperature range.

Applying pressure on deforming the battery may lead to disassembly.

8. Exposure controls/personal protection

	Occupational exposure standard	Compound Tetrahydrofuran 1,2 Dimethoxyethane	8hr TWA 50 ppm 5 ppm	15min TWA 100 ppm -	SK - -
	Respiratory protection	In all fire situations, use self-contained breathing apparatus			
	Hand protection	In the event of battery leakage wear gloves.			
	Eye Protection	Safety glasses are recommended during handling			
	Other	In the event of battery leakage, wear chemical apron.			

9. Physical and chemical properties

Appearance	Cubic shape
Odor	If battery is leaking, smells of medical ether.
pH	Not applicable
Flash point	Not applicable unless battery components are exposed
Flammability	Not applicable unless battery components are exposed
Relative density	Not applicable unless battery components are exposed
Solubility (water)	Not applicable unless battery components are exposed
Solubility (other)	Not applicable unless battery components are exposed

10. Stability and reactivity

Product is stable under conditions described in Section 7.

Conditions to avoid	<ul style="list-style-type: none">Heat above 100°C / 212°F or incinerate. Deform. Mutilate. Crush. Pierce. Disassemble.
Materials to avoid If battery is exposed	<ul style="list-style-type: none">Oxidizing agents, alkalis, water.
Hazardous reactions	<ul style="list-style-type: none">Lithium metal reacts with water to produce highly flammable gasses
Hazardous decomposition Products	<ul style="list-style-type: none">Toxic Fumes, and may form peroxides.

11. Toxicological information

Signs & symptoms	None, unless battery ruptures. In the event of exposure to internal contents, vapour fumes will be very irritating to the eyes and skin.
Inhalation	Lung irritant
Skin contact	Skin irritant
Eye contact	Eye irritant
Ingestion	Poisoning if swallowed.
Medical conditions generally aggravated by exposure	In the event of exposure to internal contents, moderate to severe irritation, burning and dryness of the skin may occur, Target organs nerves, liver and kidneys.

12. Ecological information

Mammalian effects	None known if used/disposed of correctly.
Eco-toxicity	None known if used/disposed of correctly.
Bioaccumulation potential	Slowly Bio-degradable.
Environmental fate	None known if used/disposed of correctly.

13. Disposal consideration

Do not incinerate, or subject product to temperatures in excess of 100°C / 212°F. Such abuse can result in loss of seal, leakage, and/or cell explosion. Dispose of in accordance with appropriate local regulations.

14. Transport information

The i-ALERT3 sensor contains a Lithium metal cell that contains less than 1 gram of Lithium. There is only one Lithium Cell in an i-ALERT3 sensor battery pack.

Classification (DGR 3.9.2.6): UN 3091, Lithium metal batteries contained in equipment

Packing Instruction: PI 970 - Section II



15. Regulation information

USA: This MSDS meets/exceeds OSHA requirements.

Canada: This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by those regulations.

International: This MSDS conforms to European Union (EU), the International Standards Organization (ISO) and the International Labour Organization (ILO) and as documented in ANSI (American National Standards Institute) Standard Z400.1-1993.

16. Other information

This information has been compiled from sources considered to be dependable and is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty (either expressed or implied) or guarantee is made to the accuracy, reliability, or completeness of the information contained herein. It is the user's responsibility to satisfy themselves as to the suitability and completeness of this information for their particular use.