



ACR ELECTRONICS, INC.

Material Safety Data Sheet

MSDS 20

Revision J

02-13-2006

Section 1 - Product and Company Identification

ACR Electronics, Inc., 5757 Ravenswood Rd., Ft. Lauderdale, FL. 33312 USA
PHONE: (954)-981-3333 FAX: (954)-961-4403 INTERNET: www.acrelectronics.com
E-MAIL: msds@acrelectronics.com

Hours of Operation: 9am to 5pm Mon. through Fri.

EMERGENCY 24-HOUR TELEPHONE NUMBERS: CHEM-TEL, INC, Inside U.S. (800) 255-3924, Outside U.S. (813) 248-0585 and FAX (813) 248-0582 see www.chemtelinc.com for more information about Chem-Tel, Inc.

Battery Pack

1065.1 Battery RLB 14 EPIRB

Equipment

1065.91 RLB 14 EPIRB REPAIR

Section 2 - Composition / Hazardous Ingredients

Product contains FOUR PANASONIC BR-C LITHIUM CARBON MONOFLUORIDE CELLS

Ingredient	OSHA PEL	ACGIH TLV	CAS Number	% wt	Weight per Battery Pack
LITHIUM	N/A	N/A	7439-93-2	1.7 grams	6.8 grams
CARBON MONOFLUORIDE	N/A	N/A	5131-17-2	N/A	N/A
GAMMA BUTYROLACTONE-SOLVENT	N/A	N/A	96-48-0	N/A	N/A
LITHIUM TETRAFLUOROBORATE	N/A	N/A	14283-07-9	N/A	N/A

Section 3 - Physical and Chemical Properties

N/A

Section 4 - Fire-and Explosion Data

Extinguishing Media: Use water or CO₂ on burning product or lithium batteries. Use a class D fire extinguishing agent only on a raw lithium fire.

Special Fire-Fighting Procedures: Use self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Battery or battery in product may vent when subjected to excessive heat-exposing battery contents. Hazardous combustion products are Carbon Monoxide and Carbon Dioxide and Lithium Oxide fumes.

Section 5 - Reactivity Data

Stability: Product is stable.

Conditions to Avoid: Battery contains hermetically sealed cells and is non-reactive provided the battery integrity is maintained and the cell seal remains intact.

Conditions to Avoid: Heating, mechanical abuse and electrical abuse (such as recharging, voltage reversal and short-circuiting) may result in venting.

Section 6 - Health Hazard Data

Routes of Entry: Inhalation - Yes Skin - Yes

Health Hazards (Acute and Chronic): These chemicals are contained in a sealed can. Risk of exposure occurs only if the battery is mechanically or electrically abused. Contact of electrolyte and extruded lithium with skin and eyes should be avoided.

Carcinogenicity: No NTP: None IARC Monograph: None OSHA Regulated: None

Signs / Symptoms of Exposure: A shorted Lithium battery can cause thermal and chemical burns upon contact with the skin.

Medical Conditions Generally Aggravated by Exposure: An acute exposure will not generally aggravate any medical condition.

Emergency and First Aid Procedures: In case of skin contact with contents of battery, flush immediately with water. For eye contact, flush with copious amounts of water for 15 minutes. Do not inhale leaked material. If irritation persists, get medical help.

Section 7 - Precautions for Safe Handling and Use

Handling Precautions: AVOID MECHANICAL OR ELECTRICAL ABUSE.

ACR ELECTRONICS MSDS 20

If Battery Material is released: Remove personnel from area until fumes dissipate. Provide maximum ventilation to clear out hazardous gases. Batteries will not release hazardous gases under normal operating conditions. Batteries are capable of long term storage at temperatures as high as 160°F (71°C). Storage at lower temperatures will not affect the product. Temperatures above 160°F (71°C) and storage at elevated temperatures should be avoided.

Waste Disposal Method: Follow applicable Federal, state, and local regulations for disposal/recycling of products with Lithium Batteries.

Section 8 – Disposal

Lithium batteries are best disposed of as a non-hazardous waste when fully or mostly discharged. The Federal Environmental Protection Agency (EPA) (governed by the Resource Conservation and Recovery Act (RCRA)) do not list or exempt Lithium as a hazardous waste. However, if waste lithium batteries are still fully charged or only partially discharged, they can be considered a reactive hazardous waste because of significant amounts of unreacted lithium in the battery. The batteries must be neutralized through an approved secondary treatment facility prior to disposal as a hazardous waste (as required by the U.S. Land Ban Restrictions for the hazardous and Solid Waste Amendments of 1984.) Secondary treatment centers receive these batteries as manifested hazardous waste under code "D003 - reactive." Use a professional disposal firm for disposal of mass quantities of undischarged lithium batteries. DO NOT INCINERATE or subject battery cells to temperatures in excess of 212°F. Such treatment can cause cell rupture.

Section 9 - Exposure Controls / Personal Protection

Ventilation: in case of battery venting, provide as much ventilation as possible. Avoid confined areas with venting batteries.

Respiratory Protection is not necessary under conditions of normal use.

Personal Protection is recommended for venting batteries: Respiratory Protection, Protective Gloves, Protective Clothing and safety glasses with side shields.

Transport Information

Each of the products listed in section 1 contains a lithium battery pack with 6.8 grams of Lithium.

Transportation in the United States

These products are excluded from Dangerous Goods Classification based on US/DOT CFR 49 Section 173.185 (c) and (f). The listed battery pack was tested and classified as Non-Dangerous for shipping per UN Document ST/SG/AC.10/11. *The DOT RSPA are proposing amendment to the rule in order to be consistent with the UN Recommendations.*

Passenger Aircraft Ban (for batteries only)

Effective December 29, 2004, all primary lithium batteries are banned as cargo on passenger aircraft. In addition this rule requires that the outside of each package that contains primary lithium batteries, regardless of size or number of batteries, be labeled with the following statement: "**PRIMARY LITHIUM BATTERIES- FORBIDDEN FOR TRANSPORT ABOARD PASSENGER AIRCRAFT**". See DOT 49 CFR 173.185 for more information.

International Air Transportation (IATA 2005)

Effective January 1, 2003, this product requires Class 9 markings, labeling and shipping papers. The outer packaging (shipping box) ***for the Battery Packs only*** must meet Group II test criteria (Ref. IATA 2005, Packing Instructions 903, 912 and 918). Please consult with your local authorities for additional requirements.

International Transportation (IATA 2005)	Batteries (See List in Section 1)	Equipment (See List in Section 1)
UN Number	UN3090	UN3091
Shipping Name	Lithium Batteries	Lithium Batteries Contained in Equipment
Hazard Classification	Class 9 (Miscellaneous)	Class 9 (Miscellaneous)
Packing Group	II	N/A – Requires Strong Outer Packaging

Prepared By: ROBERT STOLPE, FOR ACR ELECTRONICS, INC.

Disclaimer: THE INFORMATION INCLUDED HEREIN IS BELIEVED TO BE ACCURATE AND REPRESENTS THE BEST INFORMATION AVAILABLE TO US. HOWEVER, WE MAKE NO WARRANTY, EXPRESS OR IMPLIED, WITH RESPECT TO SUCH INFORMATION, AND WE ASSUME NO LIABILITY RESULTING FROM ITS USE. USERS SHOULD MAKE THEIR OWN INVESTIGATION TO DETERMINE SUITABILITY OF THIS INFORMATION FOR THEIR PARTICULAR USE.