

Material Safety Data Sheet

Tadiran Ltd. Israel, Tadiran Electronics

Manufacturer

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1-800-786-4899

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Telex*

Tadiran Lithium Inorganic 3.6V

Identity (Trade Name As Used On Label)

MSDS Number*

CAS Number*

September 11, 2000

Date Prepared

Prepared By*

Note: Blank spaces are not permitted. if any item is not information is available, the space must be marked to

SECTION 1 - MATERIAL IDENTIFICATION AND INFORMATION

COMPONENTS - Chemical Name & Common Names (Hazardous Components 1% or greater; Carcinogens 0.1% or greater)	%*	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED
Thionyl Chloride (SOCL ₂)	40	2 ppm	2 ppm	
Lithium (Li)	5			
Carbon (C)	5			
Aluminum Chloride (AlCl ₃)	6			
Lithium Chloride (LiCl)	2			
Nickel Plated Iron	39			
Stainless Steel	2			
Glass Separator	1			
Non-Hazardous Ingredients	N/A			
TOTAL	100			

SECTION 2 - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point	N/A	Specific Gravity (H ₂ O = 1)	N/A
Vapor Pressure (mm Hg and Temperature)	N/A	Melting point	N/A
Vapor Density (Air = 1)	N/A	Evaporation Rate (_____ = 1)	N/A
Solubility in Water	N/A	Water Reactive	The battery ingredients can form HCl, SO ₂ and H ₂ , upon contact with water (only when forced open)
Appearance and Odor	N/A		

SECTION 3 - FIRE AND EXPLOSION HAZARD DATA

Flash Point and Method Used	N/A	Auto-Ignition Temperature	N/A	Flammability Limits in Air % by Volume	N/A	LEL	N/A	UEL	N/A
Extinguisher Media	LIT-X-Extinguisher (trademark for a graphite-based powder)								
Special Fire Fighting Procedures	Do not use: water, sand, carbon dioxide, soda-acid or halogenated hydrocarbons extinguishers. Wear protective breathing apparatus, cover with Lit-X powder.								
Unusual Fire and Explosion Hazards	Do not expose to temperatures above 150°C , incinerate, puncture, crush, recharge, overdischarge or short circuiting.								

*Optional

SECTION 4 - REACTIVITY HAZARD DATA

STABILITY <input checked="" type="checkbox"/> Stable <input type="checkbox"/> Unstable	Conditions To Avoid	Fire, heat over 150°C, force opening, recharging, incinerating, expose content to water or high humidity for extended periods.
Incompatibility (Materials to Avoid)		Expose internal contents to water
Hazardous Decomposition Products		Sulfur Dioxide (SO ₂), Hydrogen Chloride (HCl), Hydrogen (H ₂)
HAZARDOUS POLYMERIZATION May Occur <input checked="" type="checkbox"/> Will Not Occur	Conditions To Avoid	N/A

SECTION 5 - HEALTH HAZARD DATA

PRIMARY ROUTES	<input checked="" type="checkbox"/> Inhalation <input checked="" type="checkbox"/> Skin Absorption	<input checked="" type="checkbox"/> Ingestion Not Hazardous	CARCINOGEN LISTED IN	NTP IARC Monograph	OSHA <input checked="" type="checkbox"/> NOT LISTED
HEALTH HAZARDS	Acute	When exposed internal content- vapors very irritating to eyes, mucous membrane and skin.			
	Chronic	Overexposure can cause symptoms of nonfibrotic lung injury and membrane irritation.			
Signs and Symptoms of Exposure	When exposed to internal contents: distinct order, coughing, acidic taste, eye and mucous irritation.				
Medical Conditions Generally Aggravated by Exposure	Lungs injuries, Asthma, other respiratory disorders, Eczema, skin allergies.				
EMERGENCY FIRST AID PROCEDURES - Seek medical assistance for further treatment, observation and support if necessary.					
Eye Contact	When exposed to internal content, flush with plenty of water for at least 15 minutes. Hold eyelids apart, seek immediate medical treatment				
Skin Contact	When exposed to internal content, flush with plenty of water. If burns developed seek medical treatment.				
Inhalation	Move out of the contaminated area to fresh air. If breathing is difficult, administer oxygen and seek immediate medical treatment.				
Ingestion	N/A				

SECTION 6 - CONTROL AND PROTECTIVE MEASURES

Respiratory Protection (Specify Type)	Acid Gas Filter Mask				
Protective Gloves	Butyl Rubber Gloves	Eye Protection	Chemical Worker Safety Glasses		
VENTILATION TO BE USED	<input checked="" type="checkbox"/> Local Exhaust	Medical (general)	Special		
	Other (specify)				
Other Protective Clothing and Equipment	Chemical Laboratory Garments				
Hygienic Work Practices	N/A				

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE / LEAK PROCEDURES

Steps to be Taken if Material Is Spilled Or Released	Ventilate the contaminated area. Do not breath vapors or touch cell content with bare hands.				
Waste Disposal Methods	Bury in ground 1 meter deep or dispose of with special equipment or use professional battery disposal service by Recovery & Reclamation Inc. (915) 4473-272 or B.D.T. (716) 6346-794				
Precautions to be Taken in Handling and Storage	The following is specified by UL: "Warning: Fire, explosion and severe hazard. Do not recharge, disassemble, heat above 100°C, incinerate or expose contents to water"				
Other Precautions and/or Special Hazards	Do not store batteries for long periods in high humidity, do not short circuit, recharge, overdischarge, expose to temperature above 150°C, crush or puncture.				
NFPA Rating* Health ___ Flammability ___ Reactivity ___ Special ___	HMIS Rating* Health ___ Flammability ___ Reactivity ___ Personal Protection ___				

*Optional

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APPENDIX A

A List Of Lithium Cells And Standard Batteries

NON RESTRICTED	CLASS 9	MAXIMUM NET WEIGHT	SIZE
GENERIC P/N	GENERIC P/N	OF LITHIUM (gr.)	
TL-2100		0.55	AA
TL-2134		0.3	1/10 D
TL-2135		0.5	1/6 D
TL-2150		0.3	1/2AA
TL-2155		0.4	2/3AA
TL-2200		2.5	C
TL-2300		5.0	D
TL-4908		0.5	0.9AA
TL-4902		0.35	1/2AA
TL-4903		0.7	AA
TL-4934		0.3	1/10D
TL-4955		0.5	2/3AA
TL-5101		0.3	1/2AA
TL-5104		0.55	AA
TL-5134		0.3	1/10 D
TL-5135		0.5	1/6 D
TL-5151		0.25	1/2AA
TL-5155		0.4	2/3AA
TL-5186		0.13	BEL
TL-5242		0.55	1xAA
TL-5276		0.3	1x 1/2AA
TL-5293		1.1	2xAA
TL-5315			
TL-5902		0.35	1/2AA
TL-5903		0.7	AA
TL-5920		2.5	C
TL-5955		0.5	2/3AA
	TL-5137	11	DD
TL-5930		5.0	D
	TL-5940	5.5	D
TL-6526		1.5	C-HT
	TL-6537	7.3	DD-HT