

RACAL COMMUNICATIONS INC -- NI-CAD BATTERY PACK (13.2 V), 3600064-1,MA --  
6140-01-220-5343

===== Product Identification =====

Product ID:NI-CAD BATTERY PACK (13.2 V), 3600064-1,MA

MSDS Date:05/11/1993

FSC:6140

NIIN:01-220-5343

MSDS Number: BQWHP

=== Responsible Party ===

Company Name:RACAL COMMUNICATIONS INC

Address:5 RESEARCH PL

City:ROCKVILLE

State:MD

ZIP:20850-3213

Country:US

Info Phone Num:301

-948-4420

Emergency Phone Num:301-948-4420

CAGE:23386

=== Contractor Identification ===

Company Name:RACAL COMMUNICATIONS INC

Address:5 RESEARCH PL

Box:City:ROCKVILLE

State:MD

ZIP:20850-3213

Country:US

Phone:301-948-4420

CAGE:23386

===== Composition/Information on Ingredients =====

Ingred Name:CADMIUM (SARA III), PERCENTAGE OF INGREDIENTS 1 & 2: 13-15  
AS CADMIUM.

CAS:7440-43-9

RTECS #:EU9800000

Other REC Limits:NONE RECOMMENDED

OSHA PEL:SEE 1910.1027

ACGIH TLV:0.01 MG/M3

DUST;9394  
EPA Rpt Qty:10 LBS  
DOT Rpt Qty:10 LBS

Ingred Name:CADMIUM HYDROXIDE  
CAS:21041-95-2  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:NOT ESTABLISHED.  
ACGIH TLV:NOT ESTABLISHED.

Ingred Name:NICKEL (SARA III), PERCENTAGE OF INGREDIENTS 3 & 4: 20-30  
AS NICKEL  
CAS:7440-02-0  
RTECS #:QR5950000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:1 MG/M3  
ACGIH TLV:1 MG/M3; 9293

Ingred Name:NICKEL HYDROXIDE (SARA III)  
CAS:12054-48-7  
RTECS #:QR7040000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:1 MG NI  
/M3  
ACGIH TLV:0.1 MG NI/M3; 9293  
EPA Rpt Qty:10 LBS  
DOT Rpt Qty:10 LBS

Ingred Name:POTASSIUM HYDROXIDE (SARA III)  
CAS:1310-58-3  
RTECS #:TT2100000  
Fraction by Wt: 2-4% DRY  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:C, 2 MG/M3  
ACGIH TLV:C 2 MG/M3; 9293  
EPA Rpt Qty:1000 LBS  
DOT Rpt Qty:1000 LBS

Ingred Name:COBALT (SARA III), PERCENTAGE OF INGREDIENTS 6 & 7: 1-2 AS  
COBALT  
CAS:7440-48-4  
RTECS #:GF8750000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.1 MG/M3;AS CO  
ACGIH TLV:0.05 MG/M3;DUST 9293

Ingred Name:COBALT HYDROXIDE  
CAS:1307-86-4  
RTECS #:GG0904000  
Other REC Limits:NONE RECOMMENDED  
OSHA PEL:0.05 MG/M3(COBALT)  
ACGIH TLV:0.1 MG/M3

===== Hazards Identification =====

LD50 LC50 Mixture:NOT RELEVANT  
Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO  
Reports of Carcinogenicity:NTP:YES IARC:YES OSHA:YES  
Health Hazards Acute and Chronic:ACUTE AND CHRONIC- ELECTROLYTE  
(POTASSIUM HYDROXIDE) FROM LEAKER IS CAUSTIC. CONTACT WITH EYES OR  
SKI  
N CAN CAUSE IRRITATION AND BURNS. FUMES ARE TOXIC AND HARMFUL IF  
INHALED.  
Explanation of Carcinogenicity:CONTAINS CADMIUM [7440-43-9] WHICH IS  
LISTED BY NTP AND IARC AND REGULATED BY OSHA AS A CARCINOGEN. ALSO  
NICKEL.  
Effects of Overexposure:ELECTROLYTE (POTASSIUM HYDROXIDE) FROM LEAKER  
IS CAUSTIC. CONTACT WITH EYES OR SKIN CAN CAUSE IRRITATION AND  
BURNS. FUMES ARE TOXIC AND HARMFUL IF INHALED.  
Medical Cond Aggravated by Exposure:PERSONS WITH PRE-EXISTING SKIN  
DISORDERS O  
R EYE PROBLEMS OR IMPAIRED RESPIRATORY FUNCTION MAY BE  
MORE SUSCEPTIBLE TO THE EFFECTS OF THE PRODUCT'S DUSTS, VAPORS OR  
FUMES.

===== First Aid Measures =====

First Aid:GET MEDICAL ATTENTION IMMEDIATELY. EYE/SKIN:IMMEDIATELY FLUSH  
WITH WATER FOR AT LEAST 15 MINUTES. HOLD EYELIDS OPEN.  
INHALED:REMOVE TO FRESH AIR & PROVIDE OXYGEN/CPR IF NEEDED.  
ORAL:UNLIKELY.

===== Fire Fighting Measures =====

Flash Po

int:NONE

Extinguishing Media:WATER SPRAY, CARBON DIOXIDE, FOAM OR DRY CHEMICAL FOR SURROUNDING FIRE. USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS.

Fire Fighting Procedures:WEAR NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS OPERATED IN THE POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard:MAY BURST WHEN SUBJECT TO EXTREME HEAT OR FIRE, RELEASING CADMIUM FUME WHICH IS TOXIC AND CAN CAUSE DEATH.

===== Accidental Release Measures =====

Spill R

Release Procedures:BATTERY AND CELL CASES WILL NORMALLY CONTAIN MATERIALS OF CONCERN. USE INDUSTRIAL ABSORBENT TO COLLECT LIQUID POTASSIUM HYDROXIDE. AVOID SKIN AND EYE CONTACT.

Neutralizing Agent:WEAK ACID FOR POTASSIUM, NICKEL & CADMIUM HYDROXIDE

===== Handling and Storage =====

Handling and Storage Precautions:STORE IN COOL PLACE. DO NOT ELECTRICALLY SHORT CIRCUIT. USE PROPER BATTERY CHARGER. AVOID BREAKING, CRUSHING OR BURNING BATTERIES.

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Other Precautions:AVOID INCINERATION OR MUTILATION. DO NOT TOUCH BROKEN OR LEAKING BATTERIES. KEEP OUT OF REACH OF CHILDREN.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:USE NIOSH APPROVED MIST OR DUST MASK WHEN HANDLING BROKEN OR LEAKING BATTERIES. WEAR SELF-CONTAINED BREATHING APPARATUS IN EMERGENCIES.

Ventilation:ROOM VENTILATION

Protective Gloves:RUBBER WHEN HANDLING LEAKERS

Eye Protection:SAFETY GOGGLES RECOMMENDED

Other Protective E

quipment:EYE WASH STATION, QUICK DRENCH SHOWER

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES. DO NOT WEAR CONTAMINATED CLOTHING.

Supplemental Safety and Health

===== Physical/Chemical Properties =====

HCC:Z5

Spec Gravity:NOT RELEVANT

Solubility in Water:NOT RELEVANT

Appearance and Odor:PLASTIC HOUSING, 9.45" X 2.09" X 3.59", MAXIMUM WEIGHT 4 LBS

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid: YES

NOT KNOWN

Stability Condition to Avoid: EXCESSIVE HEAT, FIRE

Hazardous Decomposition Products: TOXIC CADMIUM FUME

===== Disposal Considerations =====

Waste Disposal Methods: CELLS AND BATTERIES MAY BE RETURNED AT SENDERS  
EXPENSE TO A PERMITTED TREATMENT, STORAGE, DISPOSAL FACILITY  
(TSDF). DISPOSAL MUST BE MADE IN ACCORDANCE WITH ALL APPLICABLE  
FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS.

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