Product ID:NICKEL-CADMIUM BATTERY MSDS Date:10/27/1993 FSC:6140 NIIN:01-412-9128 Status Code:A MSDS Number: CKDRP === Responsible Party === Company Name: MATSUSHITA BATTERY INDUSTRIAL CO LTD Address:11-66 HONSYUKU-CHO, CHIGASAKI City:KANAGAWA, 253 Country: JA Info Phone Num:(81) 467 -53-2317 Emergency Phone Num:(81) 467-53-2317 CAGE:MATS1 === Contractor Identification === Company Name: FLUKE, JOHN MFG CO INC Address:6920 SEAWAY BLVD Box:9090 City:EVERETT State:WA ZIP:98206-9090 Country:US Phone:206-347-6100 CAGE:89536 Company Name: MATSUSHITA BATTERY INDUSTRIAL CO LTD Address:11-66 HONSYUKU-CHO, CHIGASAKI Box:City:KANAGAWA, 253 Country: JA Phone:(81) 467-53-2317 CAGE:MATS1

Ingred Name:NI(OH)2 Minumum % Wt:0 Maxumum % Wt:10. Other REC Limits:NONE RECOMMENDED

Ingred Name:NIOOH Minumum % Wt:1. Maxumum % Wt:12. Other REC Limits:NONE RECOMMENDED

Ingred Name:CADMIUM CAS:7440-43-9 RTECS #:EU9800000 Minumum % Wt:1. Maxumum % Wt:15. Other REC Limits:NONE RECOMMENDED OSHA PEL:see 1910.1027 EPA Rpt Qty:10 LBS DOT Rpt Qty:10 LBS

Ingred Name:CD(OH)2 Minumum % Wt:3. Maxumum % Wt:16. Other REC Limits:NONE RECOMMENDED

Ingred Name:KOH / NAOH Minumum % Wt:2. Maxumum % Wt:4.

Ingred Name:LIOH = Wt:.4 Other REC Limits:NONE RECOMMENDED

Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO Health Hazards Acute and Chronic:EACH BATTERY CELL IS A SEALED CYLINDRICAL CONTAINER ENCLOSING A NICKEL ELECTRODE, A CADMIUM ELECTRODE, SEPARATORS, AND ALKALINE ELECTROLYTE. IN CASE OF BATTERY CELL LEAKING: ACUTE OVEREXPOSURE: CONTAC T WITH ALKALINE LIQUID MAY DAMGE SKINS. CHRONIC OVEREXPOSRE: NICKEL, CADMIUM MAY DAMGE LUNG OR KI DNEY. Explanation of Carcinogenicity:NO CARCINOGEN. NTP: UNKNOWN, L.A.R.C.: UNKNOWN. OSHA: UNKNOWN. Effects of Overexposure: MAY DAMAGE SKINS, LUNGS, KIDNEYS.. Medical Cond Aggravated by Exposure:UNKNOWN. First Aid: EYES: FLUSH WITH WATER, GET MEDICAL ATTENTION. SKIN: WASH WITH LARGE VOLUME OF WATER, MILD ACID MAUY BE USED TO NEUTRALIZE. INHALATION: MOVE TO FRESH AIR. GET MEDICAL ATTENTION. INGESTION: **GET MEDICA** L ATTENTION IMMEDIATELY. Extinguishing Media: USE WATER, CARBON DIOXIDE, OR CARBON TETRACHLORIDE TO EXTINGUISH FIRE. Unusual Fire/Explosion Hazard: TOXIC CADMIUM OXIDE FUMES MAY BE RELEASED DURING BURNING. Spill Release Procedures: FLUSH ELECTROLYTE SPILLS WITH WATER. Neutralizing Agent:DILUTE ACID. ======= Handling and Storage ====== \_\_\_\_\_ Handling and Storage Precautions: DO NOT BREAK, OPEN BATTERY CELL. Other Precautions: DO NOT DISPOSE OF IN FIRE. DO NOT SHORT CIRCUIT. DO NOT USE DIFFERENT TYPES OF BATTERIES IN THE SAME BATTERY ASSEMBLY. Respiratory Protection: IN THE NORMAL CONDITION OF USE, IT IS NOT NEEDED. Ventilation: IT IS NOT PERMITTED TO INSTALL THE CELL IN A HERMETICALLY SEALED VESSEL. IN USAGE THE VESSEL, NEEDS TO HAVE VENT HOLES. Protective Gloves: NOT NECESSARY. USE ALKALINE RESISTANT GLOVES IF DISASSEMBLING CELL. Eye Protection: PROTECTION GOGGLES NEEDED IF INTENTIONALLY DISASSEMBLING BATTERY CELL. Other Protective Equipment: IN THE NORMAL CONDITION, IT IS NOT NEEDED SPECIFICALY. Supplemental Safety and Health

EACH BATTERY CELL IS A SEALED CYLINDRICAL CONTAINER ENCLOSING A NICKEL ELECTRODE, A CADMIUM ELECTRODE, SEPARATORS AND ALKALINE ELECTROLYTES.

========= Physical/Chemical Proper

HCC:Z5

Appearance and Odor: BATTERY CELL IS SEALED CYLINDRICAL CONTAINER.

Stability Indicator/Materials to Avoid:YES

Stability Condition to Avoid: EXCESSIVE HEAT.

Hazardous Decomposition Products:ALKALINE LIQUID MAY BE RELEASED. Conditions to Avoid Polymerization:WILL NOT OCCUR.

Waste Disposal Methods:DISPOSE OF WASTE IN ACCORDANCE W ITH APPLICABLE

LOCAL, STATE, AND FEDERAL LAWS AND REGULATIONS. RECYCLING RECOMMENDED

Transport Information: A NON-SPILLABLE WET STORAGE BATTERY IS EXCEPTED FROM ALL OTHER REQUIREMENTS OF THIS SUBCHAPTER IF: (1) THE BATTERY IS PROTECTED AGAINST SHORT CIRCUIT; (2) FOR BATTERIES MANUFACTURED AFTER SEPTEMBER 30, 1995, THE BATTERY AND THE OUTER PASKAGING MUST BE PLAINLY AND DURABLY MARKED "NONSPILLABLE" OR

"NONSPILLABLE

BATTERY", AND (3). THE BATTERY MUST BE CAPABLE OF WITHSTANDING THE FOLLOWING TWO TESTS WI THOUT LEAKAGE OF BATTERY FLUID FROM THE BATTERY: (1) VIBRATION TEST; (2)PRESSURE DIFFERENTIAL TEST. SEE 49 CFR 173.159(D).

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