

**MATERIAL SAFETY DATA SHEET**

MSDS-0174  
HH22 AC  
REV. DATE: 3/12/95

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**SECTION 1 - IDENTIFICATION**

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**PRODUCT (TRADE) NAME:** NiCad Battery**CHEMICAL FAMILY:**

**SUPPLIER:** OMEGA ENGINEERING INC.  
PO BOX 4047  
STAMFORD, CT 06907

**DATE PREPARED:** 1/28/92  
**SUPERSEDES:**

**TELEPHONE:** (203) 359-1660

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**SECTION 2 - PRODUCT IDENTIFICATION**

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**Types:** V30R, V60R, V100R (110mAh), V110R, V140R, V170R, V250R, V280R  
V60RT, V100RT, V289RT  
V500RH  
CP280

**Chemical system:** NiOOH | KOH | Cd - Rechargeable

**Voltage:** 1.2V

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**SECTION 3 - TYPE, CAPACITY AND WEIGHT**

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Cell type	IEC code	Typical capacity (mAh)	Weight (g)
V30R	KBL 116/005	35	1.7
V60R	KBL 156/061	65	4
V100R (110mAh)	—	120	6
V110R	—	120	6
V140R	KBL 252/061	155	9.5
V170R	KBL 252/067	190	10
V250R	KBL 252/081	270	11
V280R	KBL 252/091	300	13
V60RT	KBL 156/061	60	4
V100RT	—	100	6
V280RT	KBL 252/091	280	13
V500RH	KBM 346/100	550	27
CP280	KBL 252/076	300	12



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### SECTION 4 - INGREDIENTS

		Approximate percentage(%) of total weight
Active materials*	- Nickel hydroxide - Ni(OH) <sub>2</sub>	10
	- Cadmium hydroxide - Cd(OH) <sub>2</sub>	15-25
	- Potassium hydroxide - KOH	6-41
Passive materials	- Steel	35-50
	- Metallic nickel	15-20
	- Plastic	2

\*All cell types are sealed button cell; no chemical hazard will be posed as long as the cell remains in sealed condition.

### SECTION 5 - SAFETY GUIDELINES

- 5.1 Keep out of the reach of children. If swallowed, contact a physician at once.
- 5.2 Do not incinerate or mutilate — may burst or release toxic materials.
- 5.3 Do not short circuit — may cause burns.
- 5.4 Do not solder the battery directly.
- 5.5 Restrict charging current and time to the recommended value.
- 5.6 Observe charging temperature — for V. . .R, V. . .RH, and CP range: recommended: +10 to +33°C  
permissible: 0 to +45°C  
for V. . .RT range: 0 to +65°C
- 5.7 Battery compartment should provide sufficient space for battery to expand in case of abuse.
- 5.8 Either battery compartment or battery connector should have a design that makes it impossible to place the battery in reverse polarity.
- 5.9 Equipment intended for use by children should have tamper-proof battery compartment.
- 5.10 Battery of different electrochemical systems, grades, or brands should not be mixed.
- 5.11 Battery disposal method should be in accordance with local and state regulations.

### SECTION 6 - MISCELLANEOUS DATA

- All cell types conform to the requirements of IEC Standard 509.
- All cell types are UL recognized components: category BBET2, file no. MH14209(N).  
(pending for V500RH and CP280).

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