MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

YOKOGAWA

S9129FA

RECHARGEABLE BACKUP BATTERY PACK

Used with the applicable Yokogawa CENTUM configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Yokogawa technical documentation for S9129FA

YOKOGAWA

SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name **NICKEL METAL HYDRIDE/NICKEL CADMIUM BATTERIES (S9064UD, S9765UK, S9400UK, S9129FA, S9548FA)**

Synonym(s) HHR-07F3A3, HHR-07F4G4, HHR-30HF5G1, HHR-11F2A1, HHR-21AHF2A1 - MODEL NAMES

1.2 Uses and uses advised against

Use(s) BATTERIES

1.3 Details of the supplier of the product

Supplier name **YOKOGAWA AUSTRALIA PTY LTD**

Address Tower A, 112 Talavera Road, North Ryde, NSW, 2113, AUSTRALIA

Telephone (02) 8870 1100

Fax (02) 8870 1111

Email info@au.yokogawa.com

Website http://www.yokogawa.com/au/

1.4 Emergency telephone number(s)

Emergency (02) 8870 1100

2. HAZARDS IDENTIFICATION

NEW ZEALAND: Batteries are considered to be manufactured articles and are not, therefore, covered by the HSNO Act. Although they may contain hazardous substances, the item has an end use function wholly dependent on its shape and design, which does not involve the intentional release of any hazardous component. Also, the primary function of the article does not lead to any (HSNO) hazardous effect. Hazards arising during transport will still be controlled, as the local transport legislation picks up the international requirements. Disposal issues will be covered by the MfE hazardous waste programme and local authority requirements.

2.1 Classification of the substance or mixture

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

2.2 Label elements

No signal word, pictograms, hazard or precautionary statements have been allocated.

2.3 Other hazards

For the battery cell, chemical materials are stored in a hermetically sealed metal case, designed to withstand temperatures and pressures encountered during normal use. As a result, during normal use, there is no physical danger of ignition or explosion and chemical danger of hazardous materials' leakage. However, if exposed to a fire, added mechanical shocks, decomposed, added electric stress by misuse, the gas release vent will be operated. The battery cell case will be breached at the extreme. Hazardous materials may be released. Moreover, if heated strongly by the surrounding fire, acrid or harmful fume may be emitted.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
ALUMINIUM POWDER (STABILISED)	7429-90-5	231-072-3	<35%
COBALT	7440-48-4	231-158-0	<35%
MANGANESE	7439-96-5	231-105-1	<35%
NICKEL	7440-02-0	231-111-4	<35%
IRON	7439-89-6	231-096-4	10 to 25%

NICKEL HYDROXIDE	12054-48-7	235-008-5	15 to 25%
LITHIUM HYDROXIDE	1310-65-2	215-183-4	<15%
POTASSIUM HYDROXIDE	1310-58-3	215-181-3	<15%
SODIUM HYDROXIDE	1310-73-2	215-185-5	<15%
COBALT (II) HYDROXIDE	21041-93-0	244-166-4	1 to 5%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye Exposure is considered unlikely unless casing is damaged. Flush gently with running water. Seek medical attention if irritation develops.

Inhalation Exposure is considered unlikely. Due to product form / nature of use, an inhalation hazard is not anticipated.

Skin Exposure is considered unlikely unless casing is damaged. Gently flush affected areas with water. Seek medical attention if irritation develops.

Ingestion For advice, contact a Poisons Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting. Ingestion is considered unlikely due to product form.

First aid facilities None allocated.

4.2 Most important symptoms and effects, both acute and delayed

See Section 11 for more detailed information on health effects and symptoms.

4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

5. FIRE FIGHTING MEASURES

5.1 Extinguishing media

Use an extinguishing agent suitable for the surrounding fire.

5.2 Special hazards arising from the substance or mixture

Non flammable. May explode if exposed to high temperatures due to pressure build up in battery casing.

5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas. CAUTION: Batteries may explode.

5.4 Hazchem code

None allocated.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in section 8 of the SDS.

6.2 Environmental precautions

Prevent product from entering drains and waterways.

6.3 Methods of cleaning up

If battery casing is damaged and contents released, contain spillage, then cover / absorb spill with non-combustible absorbent material (vermiculite, sand, or similar), collect and place in suitable containers for disposal.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas.

7.2 Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well ventilated area, removed from incompatible substances and foodstuffs.

7.3 Specific end use(s)

No information provided.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m³	ppm	mg/m³
Cobalt, metal dust & fume (as Co) (h)	SWA (AUS)	--	0.05	--	--
Iron oxide fume (Fe2O3) (as Fe)	SWA (AUS)	--	5	--	--
Iron salts, soluble, as Fe	SWA (AUS)	--	1	--	--
Manganese, dust & compounds (as Mn)	SWA (AUS)	--	1	--	--
Manganese, fume (as Mn)	SWA (AUS)	--	1	--	3
Nickel, metal	SWA (AUS)	--	1	--	--
Nickel, soluble compounds (as Ni)	SWA (AUS)	--	0.1	--	--
Potassium hydroxide	SWA (AUS)	--	2 (Peak)	--	--
Sodium hydroxide (peak limitation)	SWA (AUS)	--	2 (Peak)	--	--

Biological limits

Ingredient	Determinant	Sampling Time	BEI
COBALT	Cobalt in urine	End of shift at end of workweek	15 µg/L
	Cobalt in blood	End of shift at end of workweek	1 µg/L

Reference: ACGIH Biological Exposure Indices

8.2 Exposure controls

Engineering controls Due to product encapsulation and nature of use, natural ventilation should be adequate.

PPE

Eye / Face	Not required under normal conditions of use.
Hands	Not required under normal conditions of use.
Body	Not required under normal conditions of use.
Respiratory	Not required under normal conditions of use.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	CYLINDRICAL SOLID (ENCLOSED)
Odour	SLIGHT ODOUR
Flammability	NON FLAMMABLE
Flash point	NOT RELEVANT
Boiling point	NOT AVAILABLE
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	NOT AVAILABLE
Vapour density	NOT AVAILABLE
Specific gravity	NOT AVAILABLE
Solubility (water)	INSOLUBLE
Vapour pressure	NOT AVAILABLE