HITACHI
Inspire the Next

HNAS Battery Safety Manual

HNAS Servers: 3080, 3090, 4040, 4060, 4080, 4100

FastFind Links

Hitachi Data Systems

MK-92HNAS080-00
January 2017

Contents

Preface

This document provides safety information for batteries fitted in the HNAS servers detailed in this document.

Please read this document carefully to understand safe handling of HNAS server batteries, and maintain a copy for reference purposes.

Intended audience

This document is intended for system administrators, Hitachi Data Systems representatives, and authorized service providers involved with the following HNAS servers.

- HNAS 3080
- HNAS 3090
- HNAS 4040
- HNAS 4060
- HNAS 4080
- HNAS 4100

Product version

This document revision applies to all versions of the HNAS servers listed above.

Release notes

The release notes for this product are available on Hitachi Data Systems Support Connect: https://support.hds.com/en_us/contact-us.html. Read the release notes before installing and using this product. They may contain requirements or restrictions that are not fully described in this document or updates or corrections to this document.

Document revision level

Revision	Date	Description
MK-92HNAS080-00	January 2017	Initial Release

Accessing product documentation

Product documentation is available on Hitachi Data Systems Support Connect: https://support.hds.com/en_us/documents.html. Check this site for the most current documentation, including important updates that may have been made after the release of the product.

Getting help

Hitachi Data Systems Support Connect is the destination for technical support of products and solutions sold by Hitachi Data Systems. To contact technical support, log on to Hitachi Data Systems Support Connect for contact information: https://support.hds.com/en_us/contact-us.html.

Hitachi Data Systems Community is a new global online community for HDS customers, partners, independent software vendors, employees, and prospects. It is the destination to get answers, discover insights, and make connections. Join the conversation today! Go to http://community.hds.com, register, and complete your profile.

Comments

Please send us your comments on this document: doc.comments@hds.com. Include the document title and number, including the revision level (for example, -07), and refer to specific sections and paragraphs whenever possible. All comments become the property of Hitachi Data Systems Corporation. **Thank you!**

1

Battery Safety

Introduction

Applicable to product: SX170145-04 – HNAS Server Battery NiMH 7.2V 9Ah

Spare part: SX325097 – FRU HNAS Server Battery Module

This is a Nickel Metal Hydride battery.

Overview

The battery is used in the following models of HDS server:

- HNAS 3080
- HNAS 3090
- HNAS 4040
- HNAS 4060
- HNAS 4080
- HNAS 4100

The battery is constructed of 12 Nickel Metal Hydride cells. It is assembled into a metal case with connector which mates with the server.

Hazard identification

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 or chemical danger of hazardous materials' leakage.

However, if exposed to a fire, mechanical shock, 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 fire, acrid or harmful fumes may be emitted.

Human health effects:

Inhalation: The fumes may affect the respiratory tract membrane and the lungs. Fumes may cause a cough, chest pain and dyspnea. Bronchitis and pneumonia may occur. The fumes could possibly be a carcinogen.

Skin contact: Skin contact with the electrolyte would seriously affect the skin and may cause dermatitis.

Eye contact: The electrolyte leaked from the battery cell is a strong alkali. When it goes into the eye, the cornea may be affected and it may lead to blindness.

Ingestion: Ingestion of the electrolyte would seriously irritate the mouth and the throat and result in vomiting, nausea, hematemesis, stomach pains and diarrhea.

Handling and storage

Handling

Technical measures:

Prevention of user exposure: Not necessary under normal use.

Prevention of fire and explosion: Not necessary under normal use.

Precaution for safe handling: Do not damage or remove the external case or the cells' external tube.

Specific safe handling advice: Never throw cells into a fire or expose to high temperatures. Do not soak cells in water or seawater. Do not expose to strong oxidizers. Do not give strong mechanical shocks or throw to the floor. Never disassemble, modify or deform. Do not connect the positive terminal to the negative terminal with electrically conductive material.

Storage

Technical measures:

Storage conditions: Avoid direct sunlight, high temperature and high humidity.
Temperature range: -20 to +35°C; Humidity range: 20 to 80%.

Incompatible materials: Conductive materials, water, seawater, strong oxidizers and strong acids

Disposal instructions

Install and remove the battery in accordance with SX555013_Mercury Battery Installation Field Note.

Dispose of batteries according to the local laws and regulations of your region. Batteries may be recycled and may be accepted for disposal at your local recycling center. Alternatively, return to the supplier.

Transport information

This battery does not require the following:

- TECHNICAL INSTRUCTIONS FOR THE SAFE TRANSPORT OF DANGEROUS GOODS BY AIR(ICAO)
- IATA Dangerous Goods Regulations - 57th Edition Effective 1st January 2016 (IATA)
- Code of federal regulations (U.S.DOT)

Regulatory information

Regulations specifically applicable to this product:

- Wastes Management and Public Cleaning Law (Japan)
- Law for Promotion Effective Utilization of Resources (Japan)
- EU Commission Directive 2006/66/EC

Hitachi Data Systems

Corporate Headquarters
2845 Lafayette Street
Santa Clara, California 95050-2639
U.S.A.
www.hds.com

Regional Contact Information

Americas
+1 408 970 1000
info@hds.com

Europe, Middle East, and Africa
+ 44 (0)1753 618000
info.emea@hds.com

Asia Pacific
+852 3189 7900
hds.marketing.apac@hds.com

MK-92HNAS080-00
January 2017