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## 1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

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### 1.1 Product identifier

**Product name** RAMSET TRAKFAST BATTERY PACK  
**Synonyms** B0092 - PRODUCT CODE • NICKEL CADMIUM BATTERY PACK • RAMSET TRAKFAST BATTERY PACK

### 1.2 Uses and uses advised against

**Uses** BATTERIES

### 1.3 Details of the supplier of the product

**Supplier name** RAMSETREID (A DIVISION OF ITW AUSTRALIA LTD) (RAMSET NZ)  
**Address** 23-29 Poland Road, Glenfield, Auckland, 0627, NEW ZEALAND  
**Telephone** +64 9444 3510  
**Email** [sales@ramsetreid.co.nz](mailto:sales@ramsetreid.co.nz)  
**Website** [www.ramset.co.nz](http://www.ramset.co.nz)

### 1.4 Emergency telephone numbers

**Emergency** +64 9444 3510  
**Poison Centre** 0800 764 766

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## 2. HAZARDS IDENTIFICATION

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### 2.1 Classification of the substance or mixture

NON HAZARDOUS ACCORDING TO NZ ENVIRONMENTAL PROTECTION AUTHORITY CRITERIA

### 2.2 GHS 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.

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## 3. COMPOSITION/ INFORMATION ON INGREDIENTS

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### 3.1 Substances / Mixtures

Ingredient	CAS Number	EC Number	Content
ADDITIVE(S)	-	-	Remainder
CADMIUM	7440-43-9	231-152-8	10 to 25%
NICKEL	7440-02-0	231-111-4	10 to 25%
CADMIUM HYDROXIDE	21041-95-2	244-168-5	12 to 23%
IRON	7439-89-6	231-096-4	12 to 13%
NICKEL HYDROXIDE	12054-48-7	235-008-5	5 to 12%

**Ingredient Notes** The materials contained in this product may only represent a hazard if the integrity of the cell or battery is compromised; physically or electrically abused.

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## 4. FIRST AID MEASURES

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### 4.1 Description of first aid measures

<b>Eye</b>	Exposure is considered unlikely unless casing is damaged. Flush gently with running water. Seek medical attention if irritation develops.
<b>Inhalation</b>	Exposure is considered unlikely. Due to product form / nature of use, an inhalation hazard is not anticipated. Also rest and keep warm.
<b>Skin</b>	Exposure is considered unlikely unless casing is damaged. Gently flush affected areas with water. Seek medical attention if irritation develops.
<b>Ingestion</b>	For advice, contact the National Poisons Centre on 0800 764 766 (0800 POISON) or +643 479 7248 or a doctor (at once). If swallowed, do not induce vomiting. Ingestion is considered unlikely due to product form. Rinse mouth out with water and give plenty of water to drink.
<b>First aid facilities</b>	Eye wash facilities and safety shower should be available.

### 4.2 Most important symptoms and effects, both acute and delayed

Adverse effects not expected from this product. Exposure to battery contents may cause irritation and potential burns.

### 4.3 Immediate medical attention and special treatment needed

Treat symptomatically.

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## 5. FIRE FIGHTING MEASURES

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### 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

2R  
2 Fine Water Spray.  
R Wear liquid-tight chemical protective clothing and breathing apparatus. Dilute spill and run-off.

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## 6. ACCIDENTAL RELEASE MEASURES

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### 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.

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## 7. HANDLING AND STORAGE

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### 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 uses**

No information provided.

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION**

**8.1 Control parameters**

**Exposure standards**

Ingredient	Reference	TWA		STEL	
		ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Cadmium and compounds (as Cd)	WES [NZ]	--	0.01	--	--
Cadmium and compounds, as Cd (A2 CARCINOGEN, bio)	WES [NZ]	--	0.002	--	--
Iron salts, soluble, as Fe	WES [NZ]	--	1	--	--
Nickel metal	WES [NZ]	--	1	--	--
Nickel metal (soluble compounds, as Ni)	WES [NZ]	--	0.1	--	--
Nickel, metal	WES [NZ]	--	1	--	--

**Biological limits**

Ingredient	Determinant	Sampling Time	BEI
CADMIUM	Cadmium in urine	Not critical	5 µg/g creatinine
	Cadmium in blood	Not critical	5 µg/L
CADMIUM HYDROXIDE	Cadmium in blood	Not critical	5 µg/L
	Cadmium in urine	Not critical	5 µg/g creatinine

Reference: ACGIH Biological Exposure Indices

**8.2 Exposure controls**

**Engineering controls**

Avoid inhalation. Use in well ventilated areas. Maintain fume levels below the recommended exposure standard.

**PPE**

- Eye / Face** Not required under normal conditions of use.
- Hands** Wear PVC or rubber gloves.
- 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**

<b>Appearance</b>	WHITE BATTERY
<b>Odour</b>	ODOURLESS
<b>Flammability</b>	NON FLAMMABLE
<b>Flash point</b>	NOT RELEVANT
<b>Boiling point</b>	NOT AVAILABLE
<b>Melting point</b>	NOT AVAILABLE
<b>Evaporation rate</b>	NOT AVAILABLE
<b>pH</b>	NOT AVAILABLE
<b>Vapour density</b>	NOT AVAILABLE
<b>Specific gravity</b>	NOT AVAILABLE
<b>Solubility (water)</b>	INSOLUBLE
<b>Vapour pressure</b>	NOT AVAILABLE
<b>Upper explosion limit</b>	NOT RELEVANT
<b>Lower explosion limit</b>	NOT RELEVANT
<b>Partition coefficient</b>	NOT AVAILABLE
<b>Autoignition temperature</b>	NOT AVAILABLE
<b>Decomposition temperature</b>	NOT AVAILABLE
<b>Viscosity</b>	NOT AVAILABLE
<b>Explosive properties</b>	NOT AVAILABLE
<b>Oxidising properties</b>	NOT AVAILABLE
<b>Odour threshold</b>	NOT AVAILABLE

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

May be corrosive to metals.

### 10.2 Chemical stability

Stable under recommended conditions of storage.

### 10.3 Possibility of hazardous reactions

Hazardous polymerisation is not expected to occur.

### 10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

### 10.5 Incompatible materials

Battery cell is encased, however contents may be incompatible with oxidising agents (e.g. hypochlorites), acids (e.g. nitric acid), alkalis (e.g. sodium hydroxide), heat and ignition sources.

### 10.6 Hazardous decomposition products

May evolve toxic gases if heated to decomposition.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

**Acute toxicity** Batteries consist of a hermetically sealed metallic container containing a number of chemicals and materials of construction that may be hazardous upon release. Over exposure considered unlikely unless battery ruptures and contact with contents occurs. Contents may be harmful.

**Information available for the ingredients:**

Ingredient	Oral LD50	Dermal LD50	Inhalation LC50
CADMIUM	890 mg/kg (mouse)	--	25 mg/m <sup>3</sup> /30M (rat)
NICKEL	> 9000 mg/kg (Sprague-Dawley rat)	--	--
IRON	30000 mg/kg (rat)	--	--
NICKEL HYDROXIDE	1515 mg/kg (rat)	> 2000 mg/kg (rat)	1200 mg/m <sup>3</sup> /4 hours (rat)

**Skin** Not classified as a skin irritant unless the battery ruptures. Contact with contents may cause irritation, redness, dermatitis and possible burns with prolonged contact.

**Eye** Not classified as an eye irritant unless the battery ruptures. Contact with contents may cause irritation, redness and possible burns with prolonged contact.

**Sensitisation** Exposure to contents containing nickel may cause skin sensitisation.

**Mutagenicity** Cadmium is suspected of causing genetic defects.

**Carcinogenicity** Cadmium, cadmium compounds, nickel and nickel compounds are classified as carcinogenic to humans (IARC Group 1). However, due to product form, exposure to contents is not anticipated.

**Reproductive** Cadmium is suspected of damaging fertility or the unborn child.

**STOT - single exposure** Not classified as causing organ damage from single exposure. Due to the product form and nature of use, exposure to internal contents is not anticipated unless the battery ruptures. Exposure to contents may cause respiratory irritation.

**STOT - repeated exposure** Due to the product form and nature of use, exposure to internal contents is not anticipated unless the battery ruptures. Repeated exposure to cadmium may result in kidney disease (including proteinuria, a decrease in glomerular filtration rate, and an increased frequency of kidney stone formation) and lung damage (including bronchiolitis and emphysema). Animal studies have also indicated effects on the liver, bone, immune system, blood, and nervous system. Repeated exposure to nickel and its compounds via inhalation may produce respiratory irritation and degeneration in humans (particles under 0.1mm diameter). Prolonged exposure via inhalation to high concentrations may result in lung fibrosis.

**Aspiration** Not relevant.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

Very toxic to aquatic life with long lasting effects.

### 12.2 Persistence and degradability

No information provided.

### 12.3 Bioaccumulative potential

No information provided.

### 12.4 Mobility in soil

No information provided.

### 12.5 Other adverse effects

No information provided.

## 13. DISPOSAL CONSIDERATIONS

### 13.1 Waste treatment methods

**Waste disposal** Reuse or recycle where possible. Return to manufacturer/supplier. Contact your state EPA or the manufacturer for additional information.

**Legislation** Dispose of in accordance with relevant local legislation.

## 14. TRANSPORT INFORMATION

CLASSIFIED AS A DANGEROUS GOOD ACCORDING TO LAND TRANSPORT RULE: DANGEROUS GOODS 2005; NZS 5433:2012, UN, IMDG OR IATA



	LAND TRANSPORT (NZS 5433)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
<b>14.1 UN Number</b>	2795	2795	2795
<b>14.2 Proper Shipping Name</b>	BATTERIES, WET, FILLED WITH ALKALI, electric storage	BATTERIES, WET, FILLED WITH ALKALI, electric storage	BATTERIES, WET, FILLED WITH ALKALI, electric storage
<b>14.3 Transport hazard class</b>	8	8	8
<b>14.4 Packing Group</b>	None allocated.	None allocated.	None allocated.

### 14.5 Environmental hazards

Marine Pollutant

### 14.6 Special precautions for user

**Hazchem code** 2R

**EMS** F-A, S-B

## 15. REGULATORY INFORMATION

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**Approval code** MANUFACTURED ARTICLE

**Group standard** Something for which its intended use is primarily to do with its physical shape, rather than its chemical composition.

**PRODUCT NAME RAMSET TRAKFAST BATTERY PACK**

**Inventory listings**      **AUSTRALIA: AICS (Australian Inventory of Chemical Substances)**  
All components are listed on AICS, or are exempt.  
**NEW ZEALAND: NZIoC (New Zealand Inventory of Chemicals)**  
All components are listed on the NZIoC inventory, or are exempt.

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**16. OTHER INFORMATION**

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**Additional information**      **EXPOSURE STANDARDS - TIME WEIGHTED AVERAGES:** Exposure standards are established on the premise of an 8 hour work period of normal intensity, under normal climatic conditions and where a 16 hour break between shifts exists to enable the body to eliminate absorbed contaminants. In the following circumstances, exposure standards must be reduced: Strenuous work conditions; hot, humid climates; high altitude conditions; extended shifts (which increase the exposure period and shorten the period of recuperation).

**WORKPLACE CONTROLS AND PRACTICES:** Unless a less toxic chemical can be substituted for a hazardous substance, **ENGINEERING CONTROLS** are the most effective way of reducing exposure. The best protection is to enclose operations and/or provide local exhaust ventilation at the site of chemical release. Isolating operations can also reduce exposure. Using respirators or protective equipment is less effective than the controls mentioned above, but is sometimes necessary.

**PERSONAL PROTECTIVE EQUIPMENT GUIDELINES:**  
The recommendation for protective equipment contained within this report is provided as a guide only. Factors such as form of product, method of application, working environment, quantity used, product concentration and the availability of engineering controls should be considered before final selection of personal protective equipment is made.

**HEALTH EFFECTS FROM EXPOSURE:**  
It should be noted that the effects from exposure to this product will depend on several factors including: form of product; frequency and duration of use; quantity used; effectiveness of control measures; protective equipment used and method of application. Given that it is impractical to prepare a report which would encompass all possible scenarios, it is anticipated that users will assess the risks and apply control methods where appropriate.

<b>Abbreviations</b>	ACGIH	American Conference of Governmental Industrial Hygienists
	CAS #	Chemical Abstract Service number - used to uniquely identify chemical compounds
	CCID	Chemical Classification and Information Database (HSNO)
	CNS	Central Nervous System
	EC No.	EC No - European Community Number
	EMS	Emergency Schedules (Emergency Procedures for Ships Carrying Dangerous Goods)
	EPA	Environmental Protection Authority [New Zealand]
	GHS	Globally Harmonized System
	HSNO	Hazardous Substances and New Organisms
	IARC	International Agency for Research on Cancer
	LC50	Lethal Concentration, 50% / Median Lethal Concentration
	LD50	Lethal Dose, 50% / Median Lethal Dose
	mg/m <sup>3</sup>	Milligrams per Cubic Metre
	OEL	Occupational Exposure Limit
	pH	relates to hydrogen ion concentration using a scale of 0 (highly acidic) to 14 (highly alkaline).
	ppm	Parts Per Million
	STEL	Short-Term Exposure Limit
	STOT-RE	Specific target organ toxicity (repeated exposure)
	STOT-SE	Specific target organ toxicity (single exposure)
	TLV	Threshold Limit Value
	TWA	Time Weighted Average

**PRODUCT NAME RAMSET TRAKFAST BATTERY PACK**

**Report status**

This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

It is based on information concerning the product which has been provided to RMT by the manufacturer, importer or supplier or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer, importer or supplier.

While RMT has taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, RMT accepts no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS.

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