



# NICKEL METAL HYDRIDE BATTERY (NiMH)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law  
Date of issue: 8/15/2022 Revision date: 11/9/2022 Supersedes: 8/15/2022 Version: 1.2

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form : Article  
Product name : NICKEL METAL HYDRIDE BATTERY (NiMH)  
Product code : YU-Lite  
Other means of identification : Cylindrical Nickel Metal Hydride

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

##### 1.2.1. Relevant identified uses

Use of the substance/mixture : Emergency Lighting, Wireless Security, Fire, and other industrial applications

##### 1.2.2. Uses advised against

Restrictions on use : Anything other than the above

#### 1.3. Details of the supplier of the safety data sheet

Only representative:

Europark Fichtenhain B 17  
47807 Krefeld  
Germany  
Telephone: +49 (0) 2151 82095 00  
E-mail: info@gs-yuasa.de

Supplier:

GS Yuasa Battery Europe Limited  
Unit 22 Rassau Industrial Estate  
Ebbw Vale, Gwent  
Telephone: +44 (0) 1495 350121  
E-mail: tech.info@gs-yuasa.uk

#### 1.4. Emergency telephone number

Emergency number : United Kingdom  
GS Yuasa Battery Sales UK Ltd.  
Telephone: (+44) 01793-833-560  
E-mail: matthew.elwick@gs-yuasa.uk  
Language: English language only  
Monday - Friday 9:00am – 5:00pm (09:00 - 17:00)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Not classified

**Adverse physicochemical, human health and environmental effects**

No additional information available

#### 2.2. Label elements

**Labelling according to Regulation (EC) No. 1272/2008 [CLP]**

No labelling applicable

#### 2.3. Other hazards

Other hazards which do not result in classification : This product meets the definition of an "article" as defined in Regulation (EC) No. 1907/2006 (REACH), and is therefore out of scope of CLP.

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This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
nickel hydroxide	CAS-No.: 11113-74-9 EC No.: 234-348-1 EC index No.: 028-008-00-X	20 – 50	Carc. 1A, H350i Repr. 1B, H360D Muta. 2, H341 STOT RE 1, H372 Acute Tox. 4 (Inhalation), H332 (ATE=1.5 mg/l/4h) Acute Tox. 4 (Oral), H302 (ATE=500 mg/kg bodyweight) Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Nickel (Ni) substance with a Community workplace exposure limit	CAS-No.: 7440-02-0 EC No.: 231-111-4 EC index No.: 028-002-01-4	< 6	Carc. 2, H351 STOT RE 1, H372 Skin Sens. 1, H317 Aquatic Chronic 3, H412
Cobalt oxide	CAS-No.: 1307-96-6 EC No.: 215-154-6 EC index No.: 027-002-00-4	1 – 3	Acute Tox. 3 (Oral), H301 (ATE=100 mg/kg bodyweight) Acute Tox. 2 (Inhalation), H330 (ATE=0.05 mg/l/4h) Resp. Sens. 1B, H334 Skin Sens. 1, H317 Carc. 1B, H350i Repr. 1B, H360Fd Aquatic Acute 1, H400 (M=10) Aquatic Chronic 1, H410 (M=10)
Nickel powder, [particle diameter < 1 mm] substance with a Community workplace exposure limit	CAS-No.: 7440-02-0 EC No.: 231-111-4 EC index No.: 028-002-01-4	< 1	Carc. 2, H351 STOT RE 1, H372 Skin Sens. 1, H317 Aquatic Chronic 3, H412

Full text of H- and EUH-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
First-aid measures after inhalation	: If a battery ruptures, move to fresh air in case of accidental inhalation of mist. Remove person to fresh air and keep comfortable for breathing. If symptoms develop, obtain medical attention.
First-aid measures after skin contact	: Remove contaminated clothing immediately. Immediately call a POISON CENTRE or doctor/physician. Wash immediately with lots of water (15 minutes)/shower.

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First-aid measures after eye contact	: Rinse immediately with plenty of water (for at least 15 minutes). Ensure that folded skin of eyelids is thoroughly washed with water. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Give 100 - 200 ml of water to drink. Immediately call a POISON CENTRE or doctor/physician.

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

Symptoms/effects after inhalation	: Harmful if inhaled. If a battery ruptures, may be harmful or fatal if inhaled in a confined area.
Symptoms/effects after skin contact	: Causes severe burns. Direct contact with internal components of a battery can be severely irritating to the skin and may result in redness, swelling, burns and severe skin damage.
Symptoms/effects after eye contact	: Causes serious eye damage. If a battery ruptures, direct contact with the liquid or exposure to vapours or mists may cause tearing, redness, swelling, corneal damage and irreversible eye damage.
Symptoms/effects after ingestion	: Harmful if swallowed.

### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically. Contact ophthalmologist immediately.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Use extinguishing media appropriate for surrounding fire. If a battery ruptures, use dry chemical, soda ash, lime, sand or carbon dioxide.
Unsuitable extinguishing media	: None known.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Battery may rupture due to pressure buildup when exposed to excessive heat and may be result in the release of corrosive materials.
Hazardous decomposition products in case of fire	: Nickel. nickel oxide. Cadmium oxide. cobalt oxide.

### 5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Avoid fire-fighting water entering the environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

#### 6.1.1. For non-emergency personnel

Protective equipment	: Use personal protective equipment as required.
Emergency procedures	: Ventilate area. Evacuate unnecessary personnel. Do not get in eyes, on skin, or on clothing.

#### 6.1.2. For emergency responders

Protective equipment	: Wear suitable protective clothing and eye or face protection. Where excessive dust may result, wear approved mask. Do not get in eyes, on skin, or on clothing. Do not breathe dust.
Emergency procedures	: Ventilate area. Do not get in eyes, on skin, or on clothing.

### 6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if large amounts of the product enters sewers or public waters. Do not allow contact with water.

### 6.3. Methods and material for containment and cleaning up

For containment	: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.
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Methods for cleaning up : Small spills: collect all released material in a plastic lined metal container. Take up liquid spill into absorbent material or Neutralize with sodium bicarbonate. Large spills: Take up liquid spill into absorbent material, e.g.: sand/earth. Dispose in a safe manner in accordance with local/national regulations.

### 6.4. Reference to other sections

SECTION 8: Exposure controls/personal protection. SECTION 13: Disposal considerations.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Do not get in eyes, on skin, or on clothing. Prolonged short circuits will cause high cell temperatures which can cause skin burns. Accidental short circuit for a few seconds will not seriously affect the battery. However, this battery is capable of delivering very high short circuit currents.  
Ensure that when handling and transporting new or spent cells/packs adequate provision is made to prevent short circuit of live conductors. Take measures to avoid storage of product next to or near flammable materials or propellant substances.

Hygiene measures : Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practice. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Take precautionary measures against static discharge. Provide local exhaust or general room ventilation.

Storage conditions : Store in a dry, cool and well-ventilated place. Store away from direct sunlight or other heat sources.

Incompatible materials : None known.

### 7.3. Specific end use(s)

Emergency Lighting, Wireless Security, Fire, and other industrial applications.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

Nickel powder, [particle diameter < 1 mm] (7440-02-0)	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Nickel metal
IOELV TWA (mg/m <sup>3</sup> )	0.005 mg/m <sup>3</sup> (respirable fraction) 0.01 mg/m <sup>3</sup> (inhalable fraction)
Notes	(Year of adoption 2011)
Regulatory reference	SCOEL Recommendations
<b>EU - Biological Limit Value (BLV)</b>	
Local name	Nickel and nickel compounds
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Nickel
OEL (8 hours ref) (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>

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<b>Nickel powder, [particle diameter &lt; 1 mm] (7440-02-0)</b>	
Remark	Sens. (In the workplace respiratory or dermal exposures to sensitising agents may occur. Sensitizers may evoke respiratory or dermal reactions, e.g. asthma, rhinitis and allergic contact dermatitis. The notation does not distinguish between respiratory or dermal sensitisation. Chemical agents that are sensitizers present special problems in the workplace. Should an employee become sensitised, subsequent exposure may cause intense responses, even at low exposure concentrations well below the OELV. Exposure should be eliminated or significantly reduced through control measures such as engineering and process controls and use of personal protective equipment (PPE))
Regulatory reference	Chemical Agents Code of Practice 2021
<b>Ireland - Biological limit values</b>	
Local name	Nickel
BLV	3 µg/l Parameter: Ni - Medium: urine - Sampling time: After several consecutive working shifts
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Nickel
WEL TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> and its inorganic compounds (except nickel tetracarbonyl): water-soluble nickel compounds (as Ni) 0.5 mg/m <sup>3</sup> and its inorganic compounds (except nickel tetracarbonyl): nickel and water insoluble nickel compounds (as Ni)
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity), Carc (Capable of causing cancer and/or heritable genetic damage (nickel oxides and sulphides)), Sen (Capable of causing occupational asthma (nickel sulphate))
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE
<b>Lithium hydroxide (1310-66-3)</b>	
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Lithium hydroxide
OEL (15 min ref) (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
<b>United Kingdom - Occupational Exposure Limits</b>	
Local name	Lithium hydroxide
WEL STEL (mg/m <sup>3</sup> )	1 mg/m <sup>3</sup>
<b>Nickel (Ni) (7440-02-0)</b>	
<b>EU - Indicative Occupational Exposure Limit (IOEL)</b>	
Local name	Nickel metal
IOELV TWA (mg/m <sup>3</sup> )	0.005 mg/m <sup>3</sup> (respirable fraction) 0.01 mg/m <sup>3</sup> (inhalable fraction)
Notes	(Year of adoption 2011)
Regulatory reference	SCOEL Recommendations
<b>EU - Biological Limit Value (BLV)</b>	
Local name	Nickel and nickel compounds
Regulatory reference	SCOEL List of recommended health-based BLVs and BGVs
<b>Ireland - Occupational Exposure Limits</b>	
Local name	Nickel

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Nickel (Ni) (7440-02-0)	
OEL (8 hours ref) (mg/m <sup>3</sup> )	0.5 mg/m <sup>3</sup>
Remark	Sens. (In the workplace respiratory or dermal exposures to sensitising agents may occur. Sensitizers may evoke respiratory or dermal reactions, e.g. asthma, rhinitis and allergic contact dermatitis. The notation does not distinguish between respiratory or dermal sensitisation. Chemical agents that are sensitizers present special problems in the workplace. Should an employee become sensitised, subsequent exposure may cause intense responses, even at low exposure concentrations well below the OELV. Exposure should be eliminated or significantly reduced through control measures such as engineering and process controls and use of personal protective equipment (PPE))
Regulatory reference	Chemical Agents Code of Practice 2021
Ireland - Biological limit values	
Local name	Nickel
BLV	3 µg/l Parameter: Ni - Medium: urine - Sampling time: After several consecutive working shifts
Regulatory reference	Biological Monitoring Guidelines (HSA, 2011)
United Kingdom - Occupational Exposure Limits	
Local name	Nickel
WEL TWA (mg/m <sup>3</sup> )	0.1 mg/m <sup>3</sup> and its inorganic compounds (except nickel tetracarbonyl): water-soluble nickel compounds (as Ni) 0.5 mg/m <sup>3</sup> and its inorganic compounds (except nickel tetracarbonyl): nickel and water insoluble nickel compounds (as Ni)
Remark (WEL)	Sk (Can be absorbed through the skin. The assigned substances are those for which there are concerns that dermal absorption will lead to systemic toxicity), Carc (Capable of causing cancer and/or heritable genetic damage (nickel oxides and sulphides)), Sen (Capable of causing occupational asthma (nickel sulphate))
Regulatory reference	EH40/2005 (Fourth edition, 2020). HSE

### 8.1.2. Recommended monitoring procedures

No additional information available

### 8.1.3. Air contaminants formed

No additional information available

### 8.1.4. DNEL and PNEC

No additional information available

### 8.1.5. Control banding

No additional information available

## 8.2. Exposure controls

### 8.2.1. Appropriate engineering controls

#### Appropriate engineering controls:

Emergency safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate ventilation to minimise dust concentrations.

### 8.2.2. Personal protection equipment

#### Personal protective equipment:

Avoid all unnecessary exposure.

#### 8.2.2.1. Eye and face protection

##### Eye protection:

Wear goggles or safety glasses with side shields if contact with the eyes is possible

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### 8.2.2.2. Skin protection

#### Skin and body protection:

Impervious clothing. EN 13034. Large quantities: EN 14605. Corrosionproof suit

#### Hand protection:

Not required for normal conditions of use. Use neoprene or natural rubber gloves if handling an open or leaking battery.

### 8.2.2.3. Respiratory protection

#### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Wear a respirator conforming to EN140 with Type A/P2 filter or better

### 8.2.2.4. Thermal hazards

#### Thermal hazard protection:

Not required for normal conditions of use.

### 8.2.3. Environmental exposure controls

#### Environmental exposure controls:

Avoid release to the environment. Do not allow to enter drains or water courses.

#### Other information:

Do not eat, drink or smoke during use. Handle in accordance with good industrial hygiene and safety procedures. Contaminated work clothing should not be allowed out of the workplace. Keep away from food, drink and animal feeding stuffs.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Cylindrical.
Colour	: No data available
Odour	: Odourless.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: Not applicable
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Not applicable.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Stable under recommended handling and storage conditions (see section 7).

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### 10.2. Chemical stability

Stable under recommended handling and storage conditions (see section 7).

### 10.3. Possibility of hazardous reactions

Hazardous polymerisation will not occur.

### 10.4. Conditions to avoid

Overcharging. Remove all sources of ignition. If battery ruptures, avoid contact with organic materials and alkaline materials. mechanical impacts.

### 10.5. Incompatible materials

None known.

### 10.6. Hazardous decomposition products

Nickel. nickel oxide. Cadmium oxide. cobalt oxide.

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Acute toxicity (oral) : Not classified.  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified.

#### Cobalt oxide (1307-96-6)

LD50 oral, rat	202 mg/kg bodyweight (OECD 401 method)
LC50 inhalation, rat (mg/l)	0.06 mg/l - 4 Hours, dust (OECD 436 method)

#### Nickel powder, [particle diameter < 1 mm] (7440-02-0)

LD50 oral, rat	> 9000 mg/kg bodyweight
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#### Nickel (Ni) (7440-02-0)

LD50 oral, rat	> 9000 mg/kg bodyweight
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Skin corrosion/irritation : Not classified.  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitisation : Not classified. Not classified.  
Germ cell mutagenicity : Not classified.  
Carcinogenicity : Not classified.

#### Nickel powder, [particle diameter < 1 mm] (7440-02-0)

IARC group	2B - Possibly carcinogenic to humans
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#### Nickel (Ni) (7440-02-0)

IARC group	2B - Possibly carcinogenic to humans
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Reproductive toxicity : Not classified.  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified.

#### nickel hydroxide (11113-74-9)

STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
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#### Nickel powder, [particle diameter < 1 mm] (7440-02-0)

STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
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#### Nickel (Ni) (7440-02-0)

STOT-repeated exposure	Causes damage to organs through prolonged or repeated exposure.
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Aspiration hazard : Not classified

### SECTION 12: Ecological information

#### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified.

Hazardous to the aquatic environment, long-term (chronic) : Not classified.

<b>Cobalt oxide (1307-96-6)</b>	
LC50 fish	1.512 mg/l - 96 Hours (Oncorhynchus mykiss), (Read-across, Cobalt dichloride hexahydrate)
EC50 Daphnia	0.61 mg/l - 48 Hours (Ceriodaphnia dubia), (Read-across)
EC50 - Crustacea [2]	2.32 mg/l - 48 Hours (Dendraster excentricus), (Read-across)
EC50 - Other aquatic organisms [1]	52 µg/L - 7 days (Lemna minor, reproduction), (Read-across, Cobalt dichloride hexahydrate), (OECD 221 method)
EC50 72h - Algae [1]	24.1 µg/L - 7 days (Champia parvula), (Read-across, Cobalt dichloride hexahydrate)
ErC50 algae	197 µg/L - 72 Hours (Pseudokirchneriella subcapitata), (Read-across, Cobalt dichloride hexahydrate)
EC10, fish, Chronic	351.4 µg/l (34 days, Pimephales promelas, Biomass (Read-across, Cobalt dichloride hexahydrate))
EC10, fish, Chronic	31,802 µg/l (28 days, Cyprinodon variegatus, Biomass (Read-across, Cobalt dichloride hexahydrate))
EC10, aquatic invertebrates, Chronic	7.55 µg/l (28 Hours, Hyalella azteca, growth (Read-across, Cobalt dichloride hexahydrate))
EC10, aquatic invertebrates, Chronic	206.4 µg/l (113 days, Neanthes arenaceodentata, juvenile emergence (Read-across, Cobalt dichloride hexahydrate))
EC10, algae	66.9 µg/l (72 Hours, Pseudokirchneriella subcapitata, Yield (Read-across, Cobalt dichloride hexahydrate))
EC10, algae	1.23 µg/l (7 days, Champia parvula, cystocarp development (Read-across, Cobalt dichloride hexahydrate))
EC10, aquatic plants	10.4 µg/l (7 days, Lemna minor, reproduction, (Read-across, Cobalt dichloride hexahydrate), (OECD 221 method))

<b>Nickel powder, [particle diameter &lt; 1 mm] (7440-02-0)</b>	
LC50 fish	15.3 mg/l - 96 Hours (Oncorhynchus mykiss)

<b>Nickel (Ni) (7440-02-0)</b>	
LC50 fish	15.3 mg/l - 96 Hours (Oncorhynchus mykiss)

#### 12.2. Persistence and degradability

<b>Cobalt oxide (1307-96-6)</b>	
Persistence and degradability	Not relevant for inorganic substances.

<b>Nickel powder, [particle diameter &lt; 1 mm] (7440-02-0)</b>	
Persistence and degradability	Not relevant for inorganic substances.

<b>Nickel (Ni) (7440-02-0)</b>	
Persistence and degradability	Not relevant for inorganic substances.

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### 12.3. Bioaccumulative potential

#### Cobalt oxide (1307-96-6)

BCF - Fish [1]	> 100 - 5000 (Read-across)
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#### Nickel powder, [particle diameter < 1 mm] (7440-02-0)

BCF - Fish [1]	45
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#### Nickel (Ni) (7440-02-0)

BCF - Fish [1]	45
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### 12.4. Mobility in soil

#### Cobalt oxide (1307-96-6)

Ecology - soil	Slightly soluble in: Water.
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### 12.5. Results of PBT and vPvB assessment

#### NICKEL METAL HYDRIDE BATTERY (NiMH)

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Ensure that when handling and transporting new or spent cells/packs for disposal, adequate provision is made to prevent short circuit of live conductors. Take measures to avoid storage of product next to or near flammable materials or propellant substances.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

Ensure that when handling and transporting new or spent cells/packs adequate provision is made to prevent short circuit of live conductors. Take measures to avoid storage of product next to or near flammable materials or propellant substances.

IMDG: NOT SUBJECT (Nickel-metal hydride button cells or nickel-metal hydride cells or batteries packed with or contained in equipment are not subject to the provisions of IMDG)

### 14.1 UN number

UN-No. (ADR)	: Not applicable
UN-No. (IMDG)	: UN 3496
UN-No. (IATA)	: Not applicable

### 14.2. UN proper shipping name

Proper Shipping Name	: Not applicable
Proper Shipping Name (IMDG)	: BATTERIES, NICKEL-METAL HYDRIDE
Proper Shipping Name (IATA)	: Not applicable
Transport document description (IMDG)	: UN 3496 BATTERIES, NICKEL-METAL HYDRIDE, 9

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### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : Not applicable

#### IMDG

Transport hazard class(es) (IMDG) : 9

Danger labels (IMDG) : 9



#### IATA

Transport hazard class(es) (IATA) : Not applicable

### 14.4. Packing group

Packing group : Not applicable

Packing group (IMDG) : Not applicable

Packing group (IATA) : Not applicable

### 14.5. Environmental hazards

Dangerous for the environment : No

Marine pollutant : No

Other information : No supplementary information available

### 14.6. Special precautions for user

#### Overland transport

Not applicable

#### Transport by sea

Special provisions (IMDG) : 117, 963

Limited quantities (IMDG) : 0

Excepted quantities (IMDG) : E0

Packing instructions (IMDG) : SP963

IBC packing instructions (IMDG) : IBC08

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-I

Stowage category (IMDG) : A

Stowage and handling (IMDG) : SW1

Properties and observations (IMDG) : Nickel-metal hydride button cells or nickel-metal hydride cells or batteries packed with or contained in equipment are not subject to the provisions of this Code.

#### Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

##### REACH Annex XVII (Restriction List)

Not applicable.

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### REACH Annex XIV (Authorisation List)

Not applicable.

### REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

### PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

### POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

### Ozone Regulation (1005/2009)

Contains no substance subject to REGULATION (EU) No 1005/2009 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 September 2009 on substances that deplete the ozone layer.

### Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on drug precursors)

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Indication of changes			
Section	Changed item	Change	Comments
14	Transport information	Modified	

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS-No.	Chemical Abstract Service number
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BLV	Biological limit value
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC No.	European Community number
EC50	Median effective concentration
ED	Endocrine disrupting properties
EN	European Standard
IARC	International Agency for Research on Cancer

# NICKEL METAL HYDRIDE BATTERY (NiMH)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

Abbreviations and acronyms:	
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
IOELV	Indicative Occupational Exposure Limit Value
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OECD	Organisation for Economic Co-operation and Development
OEL	Occupational Exposure Limit
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
STP	Sewage treatment plant
WGK	Water Hazard Class
vPvB	Very Persistent and Very Bioaccumulative

Data sources

: REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006. Where 'Regulation (EC) No. 1272/2008' appears in the safety data sheet, this is a reference to Regulation (EC) No. 1272/2008, as retained and amended in UK law.

Full text of H- and EUH-statements:	
Acute Tox. 2 (Inhalation)	Acute toxicity (inhal.), Category 2
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment – Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment – Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Carc. 1A	Carcinogenicity (inhalation) Category 1A
Carc. 1B	Carcinogenicity (inhalation) Category 1B
Carc. 2	Carcinogenicity, Category 2
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.

# NICKEL METAL HYDRIDE BATTERY (NiMH)

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH), as retained and amended in UK law

Full text of H- and EUH-statements:	
H330	Fatal if inhaled.
H332	Harmful if inhaled.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341	Suspected of causing genetic defects.
H350i	May cause cancer by inhalation.
H351	Suspected of causing cancer.
H360D	May damage the unborn child.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Muta. 2	Germ cell mutagenicity, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
Resp. Sens. 1	Respiratory sensitisation, Category 1
Resp. Sens. 1B	Respiratory sensitisation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1

### Safety Data Sheet (SDS), EU

- BATTERY WARNING: KEEP OUT OF REACH OF CHILDREN
- Store spare batteries securely
- Dispose of used batteries immediately and safely; and
- If you think batteries might have been swallowed or placed inside any part of the body, seek immediate medical attention
  
- All batteries are supplied with only a residual charge and should be charged at the continuous charge rate before use - they are not pre-charged for use
- Do not mix different types of battery
- Always install the batteries correctly as per instruction
- Ensure that the contact points are clean and conductive

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.