



Certificate No. FM 22786
ISO 9001:2015

Safety Data Sheet

According to Regulation EC No.1907/2006 Annex 2

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

1.1 Product Identifier

Product Name Jetstream™ Nickel Metal Hydride Battery

Product Description Nickel Metal Hydride Battery

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

Only to be used as a battery to power JSP Ltd's Jetstream™ powered air respirators. No other uses for this battery are recommended.

1.3 Details of the supplier

Address: JSP Ltd
Worsham Mill
Minster Lovell
Witney
Oxfordshire
OX29 0TA

Telephone: +44 1993 826051

Email Address: technical.support@jsp.co.uk

1.4 Emergency Telephone Number

Emergency Phone # +44 1993 826051

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jgpsafety.com | www.jgpsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



SECTION 2 Hazards identification

2.1 Classification of the substance or mixture

Article containing substances not intended to be released, this product is a sealed unit and not considered hazardous under recommended usage and storage

2.2 Label Elements

Labelling according to regulation EC No.1272/2008

Hazard Pictogram



Signal Word

Danger

Hazard Statements

H228

Flammable Solid

H260

Contact with water flammable gases which may ignite spontaneously

H290

May be corrosive to metals

H301

Toxic if swallowed

H302

Harmful if swallowed

H314

Causes severe skin burns and eye damage

H315

Causes skin irritation

H317

May cause an allergic skin reaction

H319

Causes serious eye irritation

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

H360

May damage fertility or 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

Toxic to aquatic life with long lasting effects

H413

Harmful to aquatic life with long lasting effects

Precautionary Statements

Please refer to section 16 for a full list of precautionary statements

2.3 Other Hazards

This product does not fulfil the criteria outlined in Annex XIII of regulation EC No. 1906:2006 for being persistent, bioaccumulative and toxic (PBT) and very persistent and very bioaccumulative (vPvB)

SECTION 3 Composition/information on ingredients

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jgpsafety.com | www.jgpsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



3.1 Substances

3.2 Mixtures

Substance	CAS Number	%	Classification:	Type
			Regulation EC No. 1272/2008	
Hydrogen Absorbing Alloy (Alloy of Ni, Co, Mn and Al)	7440-02-0 (Ni) 7440-48-4 (Co) 7439-96-5 (Mn) 7429-90-5 (Al)	20-35%	Flam. Sol. H228 Water-react. 1 H260 Skin Sens. 1 H317 Resp. Sens. 1 H334 Carc. 2 H351 STOT RE 1 H372 Aquatic Chronic 3 H412 Aquatic Chronic 4 H413	
Nickel Hydroxide	12054-48-7	15-25%	Acute Tox. 4 H302 Skin Irrit. 2 H315 Skin Sens. 1 H317 Acute Tox.. 4 H332 Resp. Sens. 1H334 Muta. 2 H341 Carc. 1B H350i Repr. 1B H360 STOT RE 1 H372 Aquatic Chronic H410	
Iron	7439-89-6	10-25%	Flam. Sol. H228	
Potassium Hydroxide	1310-58-3	0-15%	Met. Corr. H290 Acute Tox. 4 H302 Skin Corr. H314	
Sodium Hydroxide	1310-73-2	0-15%	Met. Corr. H290 Skin Corr. H314	
Lithium Hydroxide	1310-65-2	0-15%	Acute Tox. 4 H302 Skin Corr. H314	
Nickel	7440-02-0	3-10%	Carc. 2 H351 Skin Sens. 1 H317 STOT RE 1 H372 Aquatic Chronic 3 H412	
Cobalt Hydroxide	21041-93-0	1-5%	Acute Tox. 4 H302 Acute Tox. 4 H332 Eye Irrit. 2 H319 Resp. Sens. H334 Skin Sens. H317 Carc. 2 H351 Aquatic Acute 1 H400 Aquatic Chronic H410	

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jspsafety.com | www.jspsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



Type:

[1] Substance classified with a health or environmental hazard

[2] Substance with a workplace exposure limit

[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII

[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII

[5] Substance of equivalent concern

Occupational exposure limits, if available, are listed in Section 8.

SECTION 4 First Aid Measures

4.1 Description of First Aid Measures

Eye contact In case of electrolyte contact with eyes do not rub eyes. Immediately flush eyes with water continuously for at least 15 minutes. Seek medical advice.

Inhalation In case of inhalation electrolyte vapours make victim blow their nose. Seek medical attention if symptoms persist

Skin contact Remove contaminated clothes and shoes immediately. Wash extraneous matter or contact region with soap and water

Ingestion Wash mouth thoroughly with water and seek medical attention

Protection of first-aiders Please see section 8.2 for appropriate personal protective equipment for use by first aiders

4.2 Most Important symptoms and effects, both acute and delayed

Potential acute health effects

Eye contact Electrolyte may cause eye irritation and inflammation

Inhalation Electrolyte may cause respiratory irritation and inflammation

Skin contact Electrolyte may cause irritation to skin and inflammation

Ingestion Electrolyte may be toxic if ingested

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician No specific treatment notes to physician

Specific treatments

SECTION 5 Firefighting measures

5.1 Extinguishing Media

Suitable Extinguishing Media Carbon Dioxide, Nitrogen, chemical fire extinguishing media

Unsuitable Extinguishing Media Water

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jgpsafety.com | www.jgpsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



5.2 Special hazard arising from the substance or mixture

Oxides of Lithium, Cobalt, Manganese, Nickel, Aluminium and Copper maybe released during combustion. Corrosive gases may be liberated during combustion and with contact with water.

5.3 Advice for firefighters

Wear suitable personal protective equipment for fighting fires as necessary

SECTION 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel Wear suitable personal protective equipment as outlined in section 8 when dealing with spilled substances and mixtures from the battery. Remove any ignition sources and avoid contact with water

For emergency responders Wear suitable personal protective equipment as outlined in section 8 when dealing with spilled substances and mixtures from the battery. Remove any ignition sources and avoid contact with water

6.2 Environmental precautions

Do not dispose of spilled material in the environment, only dispose of material in accordance with local legislation

6.3 Methods and materials for containment and cleaning up

Remove solid waste from hazard area, for any spilled electrolyte wipe with a dry cloth using personal protective equipment recommended in section 8.

6.4 Reference to other sections

See Section 1 for emergency contact information.

See Section 8 for information on appropriate personal protective equipment.

See Section 13 for additional waste treatment information.

SECTION 7 Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

Protective measures

Do not crush, pierce, short the positive and negative terminals with conductive material (i.e. metal). Do not directly weld the terminals. Do not disassemble, mutilate or mechanically abuse the battery.

Advice on general occupational hygiene

Ensure appropriate workplace hygiene is exercised while handling the battery do eat, drink or smoke while handling the battery, especially if it is suspected to be leaking

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jpsafety.com | www.jpsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



7.2 Conditions for safe storage, including any incompatibilities

Store in a cool location, well ventilated location away from moisture, open flames and sources of heat.

7.3 Specific end use(s)

Recommendations

Industrial sector specific solutions

Only to be used as a battery to power JSP Ltd's Jetsream™ power air respirators. No other uses for this battery are recommended.

SECTION 8 Exposure controls/personal protection

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

8.1 Control Parameters

Occupational Exposure limits

This product does not have an occupational exposure limit

Recommended
monitoring
procedures
DNELs/DMELs
PNECs

8.2 Exposure Controls

Appropriate
engineering
Controls

Under foreseeable use of the product engineering controls are not required. In the presence of open or leaking batteries ensure adequate ventilation is provided

Individual protective
measures

Hygiene measures
Eye/face protection

Where risk assessment shows that eye protection is appropriate use suitable eye and face protection that meets the requirements of EN166

Skin Protection

*Hand
protection*

When handling a battery that is leaking wear suitable gloves that meets the requirements of EN 374

*Body
protection
Other skin
protection*

When handling a battery that is leaking wear suitable clothing that minimise exposed skin to the hazard

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jgpsafety.com | www.jgpsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



Respiratory protection	If exposure to vapours is likely use a CE marked respirator that meets the requirements of EN140 and tested and approved filters that are classified as ABEK filters under EN14387
Environmental exposure controls	Avoid discharging electrolyte solution into the environment, dispose of damaged battery in accordance with local legislation

SECTION 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid Cell containing fluid electrolyte contained in equipment
Colour	Black
Odour	Non
Odour threshold	Not Available
pH	Not Available
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	Not Available
Evaporation rate	Not Available
Flammability	Not Available
Upper/lower flammability /explosive limits	Not Available
Vapour pressure	Not Available
Vapour density	Not Available
Relative density	Not Available
Solubility(ies)	Not Available
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available
Viscosity	
Explosive properties	Not Available
Oxidising properties	Not Available

9.2 Other information

Battery Voltage	6V
Battery Capacity	1800mAh
Batter Weight	330g

SECTION 10 Stability and reactivity

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jgpsafety.com | www.jgpsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



10.1 Reactivity

No specific test data related to reactivity available for this product

10.2 Chemical Stability

Under foreseeable use of the product this battery is considered chemically stable

10.3 Possibility of hazardous reactions

Under foreseeable use of the product hazardous reactions should not occur

10.4 Conditions to Avoid

Avoid excessive heat, humidity and mechanical stresses. Avoid contact with water and avoid short circuiting the terminals

10.5 Hazardous decomposition products

Corrosive gases may be liberated during combustion

SECTION 11 Toxicological information

11.1 Information on toxicological effects

Acute toxicity

No Data Available

Skin corrosion/irritation

No Data Available

Serious eye damage/irritation

No Data Available

Respiratory or skin sensitisation

No Data Available

Germ cell mutagenicity

No Data Available

Carcinogenicity

No Data Available

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jspsafety.com | www.jspsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



Reproductive toxicity

No Data Available

Specific target organ toxicity – single exposure

No Data Available

Specific target organ toxicity – repeated exposure

No Data Available

Aspiration

No Data Available

Additional Information

No addition information

SECTION 12 Ecological Information

12.1 Toxicity

No Data Available

12.2 Persistence and degradability

Does not readily decay under foreseeable environmental conditions

12.3 Bioaccumulative potential

No Data Available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

No Data Available

12.6 Other adverse effects

No data available

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jspsafety.com | www.jspsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



SECTION 13 Disposal Considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste Treatment Methods

Product	The generation of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.
Packaging	The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

SECTION 14 Transport Information

14.1 UN number	
ADR/RID	UN3496
ADN	UN3496
IMDG	UN3496
ICAO	UN3496
14.2 UN proper shipping name	
ADR/RID	BATTERIES, NICKEL METAL HYDRIDE
ADN	BATTERIES, NICKEL METAL HYDRIDE
IMDG	BATTERIES, NICKEL METAL HYDRIDE
ICAO	BATTERIES, NICKEL METAL HYDRIDE
14.3 Transport hazard classes	
ADR/RID	9
ADN	9
IMDG	9
ICAO	9
14.4 Packaging group	
ADR/RID	N/A
ADN	N/A
IMDG	N/A
ICAO	N/A
14.5 Environmental hazards	
ADR/RID	N/A
ADN	N/A
IMDG	N/A
ICAO	N/A

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jspsafety.com | www.jspsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



14.6 Special precaution for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not Applicable

SECTION 15 Regulatory information

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

Regulation EC No.1907/2006 on the registration evaluation authorisation and restriction of chemicals REACH:

Annex XIV	None of the substances in this mixture are listed
Annex XVII	None of the substances in this mixture are listed
Candidate List of Substance of Very High concern for eventual inclusion into Annex XIV	None of the substances in this mixture are listed

International regulations:

Chemical Weapon Convention List Schedules I, II & III Chemicals	Not Listed
Montreal Protocol (Annexes A, B, C, E)	Not Listed
Stockholm Convention on Persistent Organic Pollutants	Not Listed
Rotterdam Convention on Prior Inform Consent (PIC)	Not Listed
UNECE Aarhus Protocol on POPs and Heavy Metals	Not Listed

15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still required.

SECTION 16 Other information

Full Text of H-Statements referred to in Section 2 and 3

H228	Flammable Solid
H260	Contact with water flammable gases which may ignite spontaneously
H290	May be corrosive to metals
H301	Toxic if swallowed
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jspsafety.com | www.jspsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



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
H360	May damage fertility or 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	Toxic to aquatic life with long lasting effects
H413	Harmful to aquatic life with long lasting effect

Full Text of P-Statements referred to in Section 2

P201	Obtain special instructions before use
P202	Do not handle until all safety precautions have been read and understood
P210	Keep away from heat/sparks/open flames/hot surfaces
P223	Keep away from any possible contact with water, because of violent reaction and possible flash fire
P231 + P232	Handle under inert gas and protect from moisture
P234	Keep only in original container
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/lighting equipment
P260	Do not breath dust/fume/vapours/spray
P261	Avoid breathing dust/fume/vapours/spray
P264	Wash hands thoroughly after handling
P270	Do not eat drink, or smoke when using this product
P271	Use only outdoors or in a well ventilated area
P272	
P273	Avoid release in to the environment
P280	Wear protective gloves/eye protection
P281	Use personal protective equipment as required
P285	In case of inadequate ventilation wear respiratory protection
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician
P301 + P312	IF SWALLOWED: call a POISON CENTRE or doctor/physician if you feel unwell

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jspsafety.com | www.jspsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



P301 + P330 + P331	IF SWALLOWED: rinse mouth and do not induce vomiting
P302 + P352	IF ON SKIN: Wash with plenty of soap and water
P303 + P361 + P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing and rinse with water/shower
P304 + P340	IF INHALED: Remove victim to fresh air and keep at rest in a comfortable position comfortable for breathing
P304 + P341	IF INHALED and breathing is difficult remove to fresh air and keep at rest in a comfortable position comfortable for breathing
P305 + P351 + P338	IF IN EYES: rinse cautiously with water for several minutes remove contact lenses, if present and easy to do so
P308 + P313	IF exposed or concerned: get medical advice/attention
P312	Call a POISON CENTRE or doctor/physician if you feel unwell
P333 + P313	If skin irritation or rash occurs: get medical advice/attention
P335 + P334	Brush off loose particles from skin and immerse in cold water/wrap in wet bandages
P337 + P313	If eye irritation persists get medical advice/attention
P342 + P311	If experiencing respiratory symptoms call a POISON CENTRE or doctor/physician
P363	Wash contaminated clothing before reuse
P370 + P378	In case of fire: use suitable extinguishing media, specified in section 5.1 for extinction
P390	Absorb spillage to prevent material damage
P391	Collect spillage

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jspsafety.com | www.jspsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61



Notice to reader

This 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. Such information is given in good faith, being based on the latest information available to JSP Ltd and is to the best of JSP Ltd's knowledge and belief, accurate and reliable at the time of preparation. However, no representation, warranty or guarantee is made as to the accuracy, liability or completeness and JSP Ltd assumes no responsibility therefore, and disclaims any liability for any loss, damage or injury howsoever arising (including in respect of any claim brought by any third party) incurred using this information. The product is supplied on the condition that the user accepts responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use

Issued 16/08/18, V2

MANUFACTURING FOR SAFETY

JSP Limited, Worsham Mill, Minster Lovell, Oxford, OX29 0TA | Telephone: +441993 824000 | Fax: +441993 824422 sales@jspsafety.com | www.jspsafety.com

Registered in England: No. 791380. Carrick House, Lypiatt Road, Cheltenham, Gloucestershire, GL50 2QJ. VAT Number: GB 222 2162 61

