# SAFETY DATA SHEET

Regulation (EC) No 1907/2006 (REACH) & **COMMISSION REGULATION (EU) 2015/830** 

Version 1

Product name EGO Backpack battery pack BAX1300

Report No: 6006325

Revision date 04-Apr-2017

Issue date 04-Apr-2017

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

### 1.1. Product identifier

Product name EGO Backpack battery pack BAX1300

No information available REACH registration number

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

Recommended use Provide power to the DC tool Uses advised against No information available

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

Supplier EGO Europe GmbH Address Wahlwiesenstrasse 1,

Postal code 71711 Steinheim an der Murr, Germany

Phone 0044 1494 957 514 FAX 0049 7144 8875497

Joerg.bauerle@egopowerplus.eu E-mail

**Importer** Address Postal code Phone E-mail

# 1.4. Emergency telephone number

Phone 0044 1235 239 670 Comments 24/7 Multilingual

# **SECTION 2: Hazards identification**

### 2.1. Classification of the substance or mixture

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

Not classified.

# 2.2. Label elements

Symbols/Pictograms None Signal word None

Hazard statements Not applicable Precautionary statements Not applicable

EU Specific Hazard Statements None.

### 2.3. Other hazards

No information available.

# SECTION 3: Composition/information on ingredients

#### 3.1 Article

Chemical name	EC No	CAS No	Weight-%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Nylon-6	607-506-6	25038-54-4	40 - 50	Not classified

ABS resin	618-371-8	9003-56-9		Not classified
Carbon	231-153-3	7440-44-0	5 - 15	Not classified
Iron	231-096-4	7439-89-6	5 - 15	Not classified
Nickel	231-111-4	7440-02-0		Skin Sens. 1 (H317)
				Carc. 2 (H351)
				STOT RE 1 (H372)
				Aquatic Chronic 3 (H412)
Copper	231-159-6	7440-50-8		Not classified
Aluminum	231-072-3	7429-90-5		Flam. Sol. 1 (H228)
				Water-react. 2 (H261)
Cobalt(II) oxide	215-154-6	1307-96-6	1 - 15	Acute Tox. 4* (H302)
				Skin Sens. 1 (H317)
				Aquatic Acute 1 (H400)
				Aquatic Chronic 1 (H410)
Manganese dioxide	215-202-6	1313-13-9	1 - 15	Acute Tox. 4 (H302)
				Acute Tox. 4 (H332)
Nickel oxide (Ni2O3)	215-217-8	1314-06-3	1 - 15	Skin Sens. 1 (H317)
				Carc. 1A (H350i)
				STOT RE 1 (H372)
				Aquatic Chronic 4 (H413)
Organic electrolyte	-	-	2 - 10	Not classified

# **SECTION 4: First aid measures**

# 4.1. Description of first aid measures

#### General advice

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### Inhalation

Seek immediate medical assistance. Remove victim to fresh air and keep at rest in a position comfortable for breathing.

### Skin contact

Wash hands thoroughly after handling. Seek medical assistance if symptoms persist.

#### **Eve contact**

Seek immediate medical assistance. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

#### Ingestion

Rinse mouth and surrounding area thoroughly. Seek immediate medical assistance.

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

No information available.

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

Treat symptomatically.

# **SECTION 5: Firefighting measures**

### 5.1. Extinguishing media

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. No information available.

Unsuitable extinguishing media

# 5.2. Special hazards arising from the substance or mixture

No information available.

### 5.3. Advice for firefighters

Evacuate personnel to safe areas. Move containers from fire area if you can do it without risk. Cool drums with water spray. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Stay upwind. Ensure adequate ventilation, especially in confined areas.

### SECTION 6: Accidental release measures

# 6.1. Personal precautions, protective equipment and emergency procedures

Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Avoid contact with eyes. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

# 6.2. Environmental precautions

Avoid release to the environment.

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

Pick up and transfer to properly labeled containers.

#### 6.4. Reference to other sections

See Section 7 for more information See section 8 for more information See section 13 for more information

# **SECTION 7: Handling and storage**

### 7.1. Precautions for safe handling

Handle in accordance with good industrial hygiene and safety practice. Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition. Avoid contact with eyes. Do not eat, drink or smoke when using this product. Wash thoroughly after handling.

# 7.2. Conditions for safe storage, including any incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from heat. Keep locked up and out of reach of children. Store in accordance with local regulations.

### 7.3. Specific end use(s)

Apart from the uses mentioned in SECTION 1.2 no other specific uses are stipulated.

# SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Chemical name	Australia	Austria	Belgium	Denmark	European Union
Carbon (CAS #: 7440-44-0)	-	TWA: 5 mg/m <sup>3</sup>	-	-	-
Nickel (CAS #: 7440-02-0)	1 mg/m <sup>3</sup>	1	-	TWA: 0.05 mg/m <sup>3</sup>	1
Copper (CAS #: 7440-50-8)	1 mg/m³ 0.2 mg/m³	STEL 4 mg/m <sup>3</sup> STEL 0.4 mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	-	TWA: 1.0 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	-
Aluminum (CAS #: 7429-90-5)	10 mg/m³ 5 mg/m³	STEL 20 mg/m <sup>3</sup> TWA: 10 mg/m <sup>3</sup>	-	TWA: 5 mg/m <sup>3</sup> TWA: 2 mg/m <sup>3</sup>	-
Cobalt(II) oxide (CAS #: 1307-96-6)	-	Skin	-	TWA: 0.01 mg/m <sup>3</sup>	-
Manganese dioxide (CAS #: 1313-13-9)	1 mg/m <sup>3</sup>	STEL 2 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>	-	TWA: 0.2 mg/m <sup>3</sup>	-
Nickel oxide (Ni2O3) (CAS #: 1314-06-3)	-	-	-	TWA: 0.05 mg/m <sup>3</sup>	-

Chemical name   Latvia   France   Finland   Germany   Italy
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Nylon-6 (CAS #: 25038-54-4)	TWA: 5 mg/m <sup>3</sup>	-	-	-	-
Nickel (CAS #: 7440-02-0)	TWA: 0.05 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	TWA: 1 mg/m³ TWA: 0.1 mg/m³	Skin	-
Copper (CAS #: 7440-50-8)	TWA: 0.5 mg/m³ STEL: 1 mg/m³	TWA: 0.2 mg/m³ TWA: 1 mg/m³ STEL: 2 mg/m³	TWA: 1 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.01 mg/m <sup>3</sup> Ceiling / Peak: 0.02 mg/m <sup>3</sup> Ceiling / Peak: 0.2 mg/m <sup>3</sup>	-
Aluminum (CAS #: 7429-90-5)	TWA: 2 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA: 5 mg/m <sup>3</sup>	TWA: 1.5 mg/m <sup>3</sup>	TWA: 4 mg/m <sup>3</sup> TWA: 1.5 mg/m <sup>3</sup>	-
Cobalt(II) oxide (CAS #: 1307-96-6)	TWA: 0.5 mg/m <sup>3</sup>	-	TWA: 0.02 mg/m <sup>3</sup>	Skin	-
Manganese dioxide (CAS #: 1313-13-9)	TWA: 0.3 mg/m <sup>3</sup>	-	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> TWA: 0.02 mg/m <sup>3</sup> Ceiling / Peak: 1.6 mg/m <sup>3</sup> Ceiling / Peak: 0.16 mg/m <sup>3</sup> TWA: 0.5 mg/m <sup>3</sup>	-
Nickel oxide (Ni2O3) (CAS #: 1314-06-3)	TWA: 0.05 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	Skin	-

Chemical name	Poland	Portugal	Spain	Switzerland	Netherlands
Nickel (CAS #: 7440-02-0)	TWA: 0.25 mg/m <sup>3</sup>	TWA: 1.5 mg/m <sup>3</sup>	TWA: 1 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	-
Copper (CAS #: 7440-50-8)	-	-	-	-	TWA: 0.1 mg/m <sup>3</sup>
Aluminum (CAS #:	TWA: 2.5 mg/m <sup>3</sup>	TWA: 10 mg/m <sup>3</sup> TWA:	TWA: 10 mg/m <sup>3</sup> TWA:	TWA: 3 mg/m <sup>3</sup>	-
7429-90-5)	TWA: 1.2 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>		
Cobalt(II) oxide (CAS #:	TWA: 0.02 mg/m <sup>3</sup>	TWA: 0.02 mg/m <sup>3</sup>	TWA: 0.02 mg/m <sup>3</sup>	Skin	-
1307-96-6)				TWA: 0.05 mg/m <sup>3</sup>	
Manganese dioxide (CAS #:	TWA: 0.3 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	-
1313-13-9)					
Nickel oxide (Ni2O3) (CAS	TWA: 0.25 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup> TWA:	TWA: 0.05 mg/m <sup>3</sup>	-
#: 1314-06-3)	_		0.2 mg/m <sup>3</sup>		

Nickel (CAS #: 7440-02-0)	Chemical name	Norway	United Kingdom	ACGIH TLV	OSHA PEL	NIOSH IDLH
Copper (CAS #: 7440-50-8)	Nickel (CAS #: 7440-02-0)	TWA: 0.05 mg/m <sup>3</sup>			o o	
Copper (CAS #: 7440-50-8)		STEL: 0.05 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	inhalable fraction		
Copper (CAS #: 7440-50-8)   TWA: 0.1 mg/m³   TWA: 1 mg/m³   STEL: 0.1 mg/m³   STEL: 0.1 mg/m³   Cu dust and mist   TWA: 1 mg/m³   Cu dust and mist   TWA: 5 mg/m³   Cu dust and mist   TWA: 5 mg/m³   TWA: 4 mg/m³   TWA: 4 mg/m³   TWA: 4 mg/m³   TWA: 5 mg/m³   respirable fraction (vacated) TWA: 5 mg/m³   Al   TWA: 5 mg/m³   Al   Aluminum   Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.1 mg/m³   TWA: 0.02 mg/m³   Co   Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.1 mg/m³   TWA: 0.02 mg/m³   Co   Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.1 mg/m³   TWA: 0.02 mg/m³   Co   Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.1 mg/m³   TWA: 0.02 mg/m³   Co   Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.1 mg/m³   TWA: 0.02 mg/m³   Co   Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.1 mg/m³   TWA: 0.02 mg/m³   Co   Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.02 mg/m³   TWA: 0.02 mg/m³   Co   Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.02 mg/m³   TWA: 0.02 mg/m³   Co   Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³					mg/m³	
Copper (CAS #: 7440-50-8)   TWA: 0.1 mg/m³   TWA: 1 mg/m³   STEL: 0.1 mg/m³   STEL: 1 mg/m³   STEL: 1 mg/m³   STEL: 1 mg/m³   STEL: 30 mg/m³   STEL: 30 mg/m³   STEL: 1 mg/m³   STEL: 1 mg/m³   STEL: 1 mg/m³   STEL: 30 mg/m³   STEL: 1 mg/m³   TWA: 1 mg/m³   TWA: 1 mg/m³   TWA: 1 mg/m³   TWA: 5 mg/m³   TWA: 5 mg/m³   TWA: 5 mg/m³   STEL: 1 mg/m³   TWA: 5 mg/m³   TWA: 5 mg/m³   STEL: 1 mg/m³   TWA: 5 mg/m³   STEL: 5 mg/m³   STEL: 1 mg/m³   TWA: 5 mg/m³   STEL: 5 mg/m³   TWA: 5 mg/m³   STEL: 5 mg/m³   STEL: 5 mg/m³   TWA: 5 mg/m³   STEL: 5 mg/m³   STEL: 5 mg/m³   TWA: 5 mg/m³   STEL: 5 mg/m³   STEL: 5 mg/m³   STEL: 5 mg/m³   TWA: 5 mg/m³   STEL: 5 mg/m						
TWA: 0.1 mg/m³						
TWA: 1 mg/m³ STEL: 0.1 mg/m³ STEL: 0.1 mg/m³ STEL: 1 mg/m³ STEL: 30 mg/m³ TWA: 1 mg/m³ STEL: 12 mg/m³ TWA: 1 mg/m³ STEL: 12 mg/m³ TWA: 1 mg/m³ TWA: 1 mg/m³ STEL: 12 mg/m³ TWA: 10 mg/m³ TWA: 10 mg/m³ TWA: 5 mg		2		2		
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STEL: 1 mg/m³ dust and mist TWA: 1 mg/m³ dust and mist TWA: 0.1 mg/m³ fume TWA: 1 mg/m³ Cu dust and mist TWA: 0.1 mg/m³ fume TWA: 1 mg/m³ Cu dust and mist TWA: 1 mg/m³ Cu dust and mist TWA: 10 mg/m³ TWA: 10 mg/m³ TWA: 10 mg/m³ TWA: 10 mg/m³ TWA: 4 mg/m³ TWA: 4 mg/m³ TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ Al Aluminum  Cobalt(II) oxide (CAS #: TWA: 0.02 mg/m³ TWA: 0.1 mg/m³ TWA: 0.02 mg/m³ CO TWA: 0.02		TWA: 1 mg/m <sup>3</sup>		fume TWA: 1 mg/m <sup>3</sup>		
TWA: 1 mg/m³ dust and mist TWA: 0.1 mg/m³ fume TWA: 1 mg/m³ cu dust and mist TWA: 0.1 mg/m³ fume TWA: 1 mg/m³ fume TWA: 1 mg/m³ cu dust and mist TWA: 10 mg/m³ cu dust and mist TWA: 10 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ Al Aluminum  Cobalt(II) oxide (CAS #: TWA: 0.02 mg/m³ STEL: 0.02 mg/m³ TWA: 0.1 mg/m³ TWA: 1 mg/m³ dust and mist TWA: 15 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ Al Aluminum				Cu dust and mist		
Aluminum (CAS #:		STEL: 1 mg/m°				
Aluminum (CAS #: TWA: 5 mg/m³   STEL: 30 mg/m³   TWA: 1 mg/m³   TWA: 15 mg/m³   total dust   TWA: 5 mg/m³   TWA: 10 mg/m³   TWA: 10 mg/m³   TWA: 15 mg/m³   total dust   TWA: 5 mg/m³						
Aluminum (CAS #: 7429-90-5)  TWA: 5 mg/m³ STEL: 12 mg/m³ TWA: 10 mg/m³ TWA: 10 mg/m³ TWA: 4 mg/m³ TWA: 4 mg/m³ TWA: 5 mg/m						
Aluminum (CAS #: 7429-90-5)  TWA: 5 mg/m³ STEL: 30 mg/m³ STEL: 12 mg/m³ TWA: 10 mg/m³ TWA: 10 mg/m³ TWA: 4 mg/m³ TWA: 4 mg/m³ TWA: 4 mg/m³ TWA: 5 mg/m³ TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ Al Muminum  Cobalt(II) oxide (CAS #: TWA: 0.02 mg/m³ STEL: 0.02 mg/m³ TWA: 0.1 mg/m³ TWA: 0.02 mg/m³ Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³ TWA: 0.1 mg/m³ TWA: 0.02 mg/m³ Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³ TWA: 0.1 mg/m³ TWA: 0.02 mg/m³ Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³ TWA: 0.1 mg/m³ TWA: 0.02 mg/m³ Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ TWA: 0.02 mg/m³ Cobalt(III) oxide (CAS #: TWA: 0.02 mg/m³ TWA: 0.02 mg/m						TWA: 0.1 mg/m <sup>2</sup>
Aluminum (CAS #: TWA: 5 mg/m³ STEL: 30 mg/m³ respirable fraction (vacated) TWA: 15 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ respirable fraction fra						
TWA: 10 mg/m³ TWA: 10 mg/m³ TWA: 4 mg/m³ TWA: 4 mg/m³ TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ r	11 : (212 !!	T14/4 F / 3	OTEL 00 / 3	T10/0 4 / 3	T) A ( A 5	
TWA: 10 mg/m³ TWA: 4 mg/m³  TWA: 4 mg/m³  TWA: 5 mg/m³ respirable fraction (vacated) TWA: 15 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ Al  Aluminum  Cobalt(II) oxide (CAS #: 1307-96-6)  TWA: 0.1 mg/m³  TWA: 0.1 mg/m³  TWA: 0.02 mg/m³ Cobalt(II) oxide (CAS #: 1307-96-6)				· ·		
TWA: 4 mg/m³ respirable fraction (vacated) TWA: 15 mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ Al TWA: 5 mg/m³ Al Aluminum  Cobalt(II) oxide (CAS #: TWA: 0.02 mg/m³ TWA: 0.1 mg/m³ TWA: 0.02 mg/m³ Co  1307-96-6) STEL: 0.02 mg/m³	7429-90-5)	STEL: 5 mg/m		respirable fraction		
Cobalt(II) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.1 mg/m³   TWA: 0.02 mg/m³   TWA:					o o	
mg/m³ total dust (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ respirable fraction (vacated) TWA: 5 mg/m³ Al Aluminum			TVVA. 4 mg/m			
Cobalt(II) oxide (CAS #: TWA: 0.02 mg/m³ TWA: 0.1 mg/m³ TWA: 0.02 mg/m³ Co   TWA: 0.02 mg/m³   TWA:						mg/m Ai
mg/m³ respirable   fraction (vacated)   TWA: 5 mg/m³ Al   Aluminum						
Cobalt(II) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.1 mg/m³   TWA: 0.02 mg/m³ Co						
TWA: 5 mg/m³ AÍ   Aluminum   Cobalt(II) oxide (CAS #: TWA: 0.02 mg/m³   TWA: 0.1 mg/m³   TWA: 0.02 mg/m³ Co						
Cobalt(II) oxide (CAS #: TWA: 0.02 mg/m³ TWA: 0.1 mg/m³ TWA: 0.02 mg/m³ Co						
Cobalt(II) oxide (CAS #: TWA: 0.02 mg/m³ TWA: 0.1 mg/m³ TWA: 0.02 mg/m³ Co						
1307-96-6) STEL: 0.02 mg/m <sup>3</sup>	Cobalt(II) oxide (CAS #:	TWA: 0.02 mg/m <sup>3</sup>	TWA: 0.1 mg/m <sup>3</sup>	TWA: 0.02 mg/m <sup>3</sup> Co	-	_
1007 00 07   0.121. 0.02 mg/m	` ,			11171. 0.02 mg/m 00		
I STEL: 0.06 mg/m <sup>2</sup>	1007 00 0)	STEL: 0.06 mg/m <sup>3</sup>				
Manganese dioxide (CAS #: TWA: 1 mg/m³ TWA: 0.5 mg/m³ TWA: 0.02 mg/m³ Mn (vacated) Ceiling: 5 IDLH: 500 mg/m³ Mn	Manganese dioxide (CAS #:		TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.02 mg/m <sup>3</sup> Mn	(vacated) Ceiling: 5	IDLH: 500 mg/m <sup>3</sup> Mn
1313-13-9) TWA: 0.1 mg/m <sup>3</sup> TWA: 0.1 mg/m <sup>3</sup> Mn mg/m <sup>3</sup> TWA: 1 mg/m <sup>3</sup> Mn					mg/m <sup>3</sup>	
STEL: 1 ppm Ceiling: 5 mg/m³ Mn STEL: 3 mg/m³ Mn						
STEL: 0.1 mg/m <sup>3</sup>		STEL: 0.1 mg/m <sup>3</sup>			J = 5 =g	

Nickel oxide (Ni2O3) (CAS #: 1314-06-3)	TWA: 0.05 mg/m <sup>3</sup> STEL: 0.05 mg/m <sup>3</sup>	TWA: 0.5 mg/m <sup>3</sup>	TWA: 0.2 mg/m <sup>3</sup> Ni inhalable fraction	TWA: 1 mg/m <sup>3</sup> Ni (vacated) TWA: 1	IDLH: 10 mg/m³ Ni TWA: 0.015 mg/m³
				mg/m³ Ni	except Nickel carbonyl
					Ni

### **Derived No Effect Level (DNEL)**

No information available

# **Predicted No Effect Concentration (PNEC)**

No information available

# 8.2. Exposure controls

# **Engineering controls**

Ensure adequate ventilation, especially in confined areas. Remove all sources of ignition.

### Personal protective equipment

Eye/face protection Avoid contact with eyes. Hand protection Wear protective gloves.

Skin and body protection

No special technical protective measures are necessary.

Respiratory protection

Ensure adequate ventilation, especially in confined areas.

# **Environmental exposure controls**

Avoid release to the environment.

# SECTION 9: Physical and chemical properties

# 9.1. Information on basic physical and chemical properties

**Appearance** Solid

Color No information available Odor Odorless, non-toxic **Odor threshold** Not determined Hq Not determined Melting point/freezing point Not determined Boiling point / boiling range Not determined Flash point Not applicable **Evaporation rate** Not determined Flammability (solid, gas) Not flammable Flammability limit in air Not applicable Vapor pressure Not determined Vapor density Not applicable Density Not determined Relative density Not determined Water solubility Not determined Partition coefficient (LogPow) Not determined **Autoignition temperature** Not applicable **Decomposition temperature** Not determined Kinematic viscosity Not determined Dynamic viscosity Not determined **Explosive properties** Not an explosive

#### 9.2. Other information

**Oxidizing properties** 

No information available

# SECTION 10: Stability and reactivity

### 10.1. Reactivity

\_\_\_\_\_\_

Not determined

\_\_\_\_\_\_

No information available.

### 10.2. Chemical stability

Stable under normal conditions.

# 10.3. Possibility of hazardous reactions

None under normal processing.

### 10.4. Conditions to avoid

Heat, flames and sparks.

# 10.5. Incompatible materials

None known based on information supplied.

# 10.6. Hazardous decomposition products

None under normal use conditions.

# SECTION 11: Toxicological information

# 11.1. Information on toxicological effects

**Acute toxicity** 

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Carbon (CAS #: 7440-44-0)	> 10000 mg/kg (Rat)	1	-
Iron (CAS #: 7439-89-6)	98.6 g/kg bw (rat)	1	-
Nickel (CAS #: 7440-02-0)	> 9000 mg/kg (Rat)	1	-
Copper (CAS #: 7440-50-8)	> 2500 mg/kg bw(rat)	> 2000 mg/kg bw(rat)	=1.03 mg/L/4 h(rat)
Aluminum (CAS #: 7429-90-5)	LD50> 15900 mg/kg bw(rat)	1	LC50> 0.888 mg/L/4 h(rat)
Cobalt(II) oxide (CAS #:	= 159 mg/kg (Rat) = 202	-	-
1307-96-6)	mg/kg (Rat)		

### Skin corrosion/irritation

Non-irritating to the skin.

# Serious eye damage/eye irritation

No eye irritation.

### Sensitization

No sensitization responses were observed.

### Germ cell mutagenicity

No information available.

Carcinogenicity

Chemical name	European Union	IARC
Nylon-6 (CAS #: 25038-54-4)	-	Group 3
Nickel (CAS #: 7440-02-0)	Carc. 2	Group 2B

# Reproductive toxicity

No information available.

### STOT - single exposure

No information available.

### STOT - repeated exposure

No information available.

### **Aspiration hazard**

No information available.

# SECTION 12: Ecological information

### 12.1. Toxicity

Chemical name	Algae/Aquatic plants EC50	Fish LC50	Crustacea EC50
Iron (CAS #: 7439-89-6)	-	13.6: 96 h Morone saxatilis	> 100 mg/L/48h (Daphnia
		mg/L LC50 static	magna)
Nickel (CAS #: 7440-02-0)	-	100 mg/L/96h Brachydanio rerio	100 mg/L/48h Daphnia magna
		10.4 mg/L/96h Cyprinus carpio	
		static	
Copper (CAS #: 7440-50-8)	-	1.25: 96 h Lepomis macrochirus	-
		mg/L LC50 static	
Aluminum (CAS #: 7429-90-5)	-	> 50 mg/L/96h	-
Manganese dioxide (CAS #:	> 100 other: v/v saturated	> 100 other: % v/v saturated	> 100 other: % v/v saturated
1313-13-9)	solution 72h Desmodesmus	solution 96h Oncorhynchus	solution 48h Daphnia magna
	subspicatus	mykiss	

### 12.2. Persistence and degradability

No information available.

#### 12.3. Bioaccumulative potential

Chemical name	Partition coefficient (LogPow)	
Manganese dioxide (CAS #: 1313-13-9)	<0	

### 12.4. Mobility in soil

No information available.

#### 12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

### 12.6. Other adverse effects

No information available.

# **SECTION 13: Disposal considerations**

#### 13.1. Waste treatment methods

Waste from residues/unused

products

Disposal should be in accordance with applicable regional, national and local laws

and regulations.

Contaminated packaging Disposal should be in accordance with applicable regional, national and local laws

and regulations.

# **SECTION 14: Transport information**

**14.1. UN number** 3480

14.2. UN proper shipping name LITHIUM ION BATTERIES (including lithium ion polymer

batteries)

14.3. Transport hazard class(es) 9

14.4. Packing group

**14.5. Environmental hazards**Non-marine pollutant

**14.6. Special precautions for user**Read SDS and emergency procedures before handling.

# 14.7. Transport in bulk according to Annex II of Not applicable MARPOL and the IBC Code

# **SECTION 15: Regulatory information**

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

Component	EINECS/ELINCS	SVHC candidates	RESTRICTIONS - REACH TITLE VIII		
Carbon 7440-44-0	Х	-	-		
Iron 7439-89-6	Х	-	-		
Nickel 7440-02-0	Х	-	-		
Copper 7440-50-8	Х	-	-		
Aluminum 7429-90-5	Х	-	-		
Cobalt(II) oxide 1307-96-6	Х	-	-		
Manganese dioxide 1313-13-9	Х	-	-		
Nickel oxide (Ni2O3) 1314-06-3	Х	-	-		

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work

Take note of Directive 94/33/EC on the protection of young people at work

Take note of Directive 92/85/EC on the protection of pregnant and breastfeeding women at work

### International inventories

Component	TSCA	DSL/NDSL	ENCS	IECSC	KECL	PICCS	AICS
Nylon-6 25038-54-4	Х	Х	Х	Х	Х	Х	Х
ABS resin 9003-56-9	X	X	X	X	X	X	X
Carbon 7440-44-0	Х	Х	Exempt	Х	Х	Х	Х
Iron 7439-89-6	Х	Х	Exempt	Х	Х	Х	Х
Nickel 7440-02-0	Х	Х	Exempt	Х	Х	Х	Х
Copper 7440-50-8	Х	Х	Exempt	Х	Х	Х	Х
Aluminum 7429-90-5	Х	Х	Exempt	Х	Х	Х	Х
Cobalt(II) oxide 1307-96-6	Х	Х	Х	Х	Х	Х	Х
Manganese dioxide 1313-13-9	Х	Х	Х	Х	Х	Х	Х
Nickel oxide (Ni2O3) 1314-06-3	Х	Х	Х	Х	Х	-	Х

<sup>&</sup>quot;-" Not Listed

# 15.2. Chemical safety assessment

No information available.

<sup>&</sup>quot;X" Listed

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# **SECTION 16: Other information**

This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006

Issue date04-Apr-2017Revision date04-Apr-2017Revision noteNot applicable

### Key or legend to abbreviations and acronyms used in the safety data sheet

TWA - TWA (Time Weighted Average)STEL - STEL (Short Term Exposure Limit)

Ceiling - Maximum limit value

TSCA - Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

**EINECS/ELINCS** - European INventory of Existing Commercial chemical Substances/European LIst of Notified Chemical Substances

**ENCS** - Japanese Existing and New Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances

**KECL** - Korea Existing Chemicals List

PICCS - The Philippine Inventory of Chemicals and Chemical Substances

AICS - The Australian Inventory of Chemical Substances

# Key literature references and sources for data

ECHA: http://echa.europa.eu/

IFA GESTIS: http://gestis-en.itrust.de/nxt/gateway.dll?f=templates\$fn=default.htm\$vid=gestiseng:sdbeng

HSDB: http://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm ICSC: http://www.ilo.org/dyn/icsc/showcard.home

eChemPortal: http://www.echemportal.org/echemportal/index?pageID=0&request\_locale=en

NITE-CHRIP: http://www.nite.go.jp/en/chem/chrip/chrip search/srhInput

#### Full text of H-Statements referred to under section 3

H228 - Flammable solid

H261 - In contact with water releases flammable gases

H302 - Harmful if swallowed

H332 - Harmful if inhaled

H317 - May cause an allergic skin reaction

H350i - May cause cancer by inhalation

H351 - Suspected of causing cancer

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

H413 - May cause long lasting harmful effects to aquatic life

#### Disclaimer

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.

----- End of Safety Data Sheet -----