SAFETY DATA SHEET
According to EC 1907/2006 (REACH)

Date last verification : 2015-01-21
Revision date : 2012-07-21
Publication date : 2011-09-27

Version number : 2.1

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

1.1. Product identifier

SDS : 27364
Supplier : PHILIPS HEALTHCARE, BOTHELL
22100 Bothell Everett Highway
98021 Bothell
Washington
United States of America
TEL:+1 425-908-2636

Tradename : HEARTSTART HS1 DEFIBRILLATOR (M5066A) : BATTERY PART NUMBER M5070A : LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT [5.04 G LITHIUM TOTAL IN BATTERY]

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

General description : BATTERY CONTAINED IN EQUIPMENT
Use : Various
Uses advised against : Data not available.

1.3. Details of the supplier of the safety data sheet

Supplier safety data sheet : Philips Electronics Nederland B.V., P.O. Box 218, 5600 MD Eindhoven, Tel. +31 (0)40 2747588
Responsible department : dangerous.goods@philips.com

1.4. Emergency telephone number

Emergency telephone number : +31 (0)497-598315

2. Hazards identification

2.1. Classification of the substance or mixture

GHS: (EC) No 1272/2008
Not classified according to GHS classification.

EC: (EC) No 67/548 or 1999/45
Not classified according to EC classification.

2.2. Label elements

GHS: (EC) No 1272/2008
GHS-Label : not applicable
Remarks on GHS-labelling : none

EC: (EC) No 67/548 or 1999/45
EC-Label : not applicable
Remarks on EC-labelling : none

2.3. Other hazards

Data not available.

3. Composition/information on ingredients
4. **First aid measures**

4.1. **Description of first aid measures**

Skin : Not applicable.
Ingestion : Not applicable.
Inhalation : Not applicable.
Eyes : Not applicable.

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

<table>
<thead>
<tr>
<th></th>
<th>Skin</th>
<th>Ingestion</th>
<th>Inhalation</th>
<th>Eyes</th>
</tr>
</thead>
<tbody>
<tr>
<td>local</td>
<td></td>
<td>local</td>
<td>local</td>
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</tr>
<tr>
<td>general</td>
<td></td>
<td>general</td>
<td>general</td>
<td></td>
</tr>
<tr>
<td>Remarks symptoms</td>
<td>None</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

None

5. **Firefighting measures**

5.1. **Extinguishing media**

Suitable fire-extinguisher
determined by surrounding

Unsuitable fire-extinguisher
not traceable

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

Hazardous decomposition products in fire : lithium oxide

5.3. **Advice for firefighters**

In the event of fire, wear protective clothing and use breathing apparatus that is independent of the ambient air.

6. **Accidental release measures**

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

Precautions
Use protective equipment. See section 8.

Emergency procedure
Is not to be expected.

6.2. **Environmental precautions**

Remainder material has to be incinerated in a proper installation or dumped on an approved landfill, in accordance with local and national legislation.

6.3. **Methods and material for containment and cleaning up**
6.4. Reference to other sections
See section 8 for appropriate personal protection.
See section 13 for additional information on waste treatment.

7. Handling and storage

7.1. Precautions for safe handling
Observe label precautions.

Local exhausting : Under normal circumstances not applicable.
Storage code (on behalf of PGS : M4
15)

7.2. Conditions for safe storage, including any incompatibilities
Storage conditions : See also any precautionary statements and S-phrases in section 2.2.
Store product protected from proximity to other sources of heat, dry.

7.3. Specific end use(s)
Data not available.

8. Exposure controls/personal protection

8.1. Control parameters
Exposure limits :
applicable to: The Netherlands
No TWA has been laid down.
LITHIUM METAL BATTERY
C= Ceiling; S= Skin
Remarks exposure limits :
none
DNEL (Derived No Effect Level)
Data not available.
PNEC (Predicted No Effect Concentration)
Data not available.

8.2. Exposure controls
Advised personal protection :
Hands : not applicable
Breakthrough time : not applicable
Eyes : not applicable
Inhalation : not applicable
Skin : none (when used normally)

9. Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : article
Colour : type dependent
Odour : odourless
Odour threshold (20°C; 1013 mbar) : not traceable
pH : not applicable
Melting point/range : not traceable
Boiling point/range : not traceable
Flash point/range : not applicable
Vapor rate/range : not applicable
Flammability (solid, gas) : data not available
Explosive limits : not applicable
Vapour pressure : not applicable
Density : not traceable
Solubility in water : not applicable
Log Po/w : not traceable
Autoignition temperature : not applicable
Decomposition temperature : not traceable
Viscosity : not applicable
Dust explosions possible in air : not applicable
Oxidising properties : no

9.2. Other information
Solubility in fat : not applicable
Electrostatic chargement : not traceable

10. Stability and reactivity

10.1. Reactivity
See section 10.2 - 10.6.

10.2. Chemical stability
The substance or mixture is stable under normal conditions. See also section 10.4.

10.3. Possibility of hazardous reactions
Reactions with water : no
Other hazardous conditions : Data not available.

10.4. Conditions to avoid
Data not available.

10.5. Incompatible materials
Hazardous reactions with : none

10.6. Hazardous decomposition products
Hazardous decomposition products at heating : none

11. Toxicological information

11.1. Information on toxicological effects
Acute oral toxicity
There are no data available.

Acute dermal toxicity
There are no data available.

Acute inhalation toxicity
There are no data available.

Ames test
not traceable

Skin corrosion/irritation
The substance or mixture is not classified for skin corrosion/-irritation.

Serious eye damage/irritation
The substance or mixture is not classified for serious eye damage/irritation.

Respiratory or skin sensitisation
The substance or mixture is not classified for respiratory or skin sensitisation.

Germ cell mutagenicity
The substance or mixture is not classified for germ cell mutagenicity.

Carcinogenicity
The substance or mixture is not classified for carcinogenicity.

Reproductive toxicity

Date of request : 2015-10-01
The substance or mixture is not classified for reproductive toxicity.

**Specific target organ toxicity-single exposure**
The substance or mixture is not classified for specific target organ toxicity-single exposure.

**Specific target organ toxicity-repeated exposure**
The substance or mixture is not classified for specific target organ toxicity-repeated exposure.

**Aspiration hazard**
The substance or mixture is not classified for aspiration hazard.

**Symptoms**

<table>
<thead>
<tr>
<th>Skin</th>
<th>local</th>
<th>Not applicable.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>general</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>local</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>general</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>local</td>
<td>Not applicable.</td>
</tr>
<tr>
<td></td>
<td>general</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Eyes</td>
<td>local</td>
<td>Not applicable.</td>
</tr>
</tbody>
</table>

**Remarks symptoms**
None

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## 12. Ecological information

### 12.1. Toxicity

**Ecotoxicity**
not traceable

### 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Biological oxygen demand</th>
<th>not traceable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chemical oxygen demand</td>
<td>not traceable</td>
</tr>
<tr>
<td>Biological/chemical oxygen demand ratio</td>
<td>not traceable</td>
</tr>
<tr>
<td>Degradability</td>
<td>not traceable</td>
</tr>
</tbody>
</table>

### 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Biochemical factor</th>
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</thead>
<tbody>
<tr>
<td>Log Po/w</td>
<td>not traceable</td>
</tr>
</tbody>
</table>

### 12.4. Mobility in soil

| Henry Constant | not traceable |

### 12.5. Results of PBT and vPvB assessment

Data not available.

### 12.6. Other adverse effects

**Remarks on ecotoxicity**
none

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## 13. Disposal considerations

### 13.1. Waste treatment methods

Remainder material has to be incinerated in a proper installation or dumped on an approved landfill, in accordance with local and national legislation.

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## 14. Transport information

### 14.1. UN number

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>3091</th>
</tr>
</thead>
<tbody>
<tr>
<td>IMDG/IMO</td>
<td>3091</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>3091</td>
</tr>
</tbody>
</table>

**Remarks IATA/ICAO**
The product must be transported in accordance with the regulations of IATA PACKING INSTRUCTION 970 - SECTION I (Meets the GENERAL REQUIREMENTS of IATA PACKING INSTRUCTION 970).
14.2. **UN proper shipping name**

<table>
<thead>
<tr>
<th>ADR/RID</th>
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<th>IATA/ICAO</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT</td>
<td>LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT</td>
</tr>
</tbody>
</table>

14.3. **Transport hazard class(es)**

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>IMDG/IMO</th>
<th>IATA/ICAO</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>9</td>
<td>9</td>
</tr>
</tbody>
</table>

14.4. **Packing group**

<table>
<thead>
<tr>
<th>ADR/RID</th>
<th>IMDG/IMO</th>
<th>IATA/ICAO</th>
</tr>
</thead>
<tbody>
<tr>
<td>none</td>
<td>none</td>
<td>none</td>
</tr>
</tbody>
</table>

14.5. **Environmental hazards**

Marine pollutant : no

14.6. **Special precautions for user**

Hazard identification number (ADR/RID) : none
EmS (IMDG/IMO) : F-A, S-I

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

Data not available.

15. **Regulatory information**

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

- Articles are exempted from the Toxic Substances Control Act Inventory (TSCA-USA).

15.2. **Chemical safety assessment**

- Data not available.

16. **Other information**

Remarks on SDS : The presence of lithium-batteries gives an enlarged risk of fire.

Overview relevant H-sentences from all components in section 3
not applicable

Overview relevant hazard statements from all components in section 3
not applicable

Overview relevant R-sentences from all components in section 3
not applicable

Training advice
Provide adequate information, instruction and training for operators.

A key or legend to abbreviations and acronyms used in the safety data sheet

<table>
<thead>
<tr>
<th>REACH</th>
<th>GHS</th>
<th>CAS</th>
<th>TGG = TWA</th>
<th>LEL</th>
<th>UEL</th>
<th>ADR</th>
<th>RID</th>
<th>UN</th>
<th>IMDG</th>
<th>IMO</th>
<th>IATA</th>
<th>ICAO</th>
<th>EmS</th>
</tr>
</thead>
</table>

Date of request: 2015-10-01

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* Point to alterations with regard to the previous version.

The information provided in this Material Safety Data Sheet is correct to the best of the knowledge, information and belief of PHILIPS HEALTHCARE, BOTHELL at the date of its printing.