



ALBALIGHT

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

1.1 – Product identifier	ALBALIGHT
1.2 – Relevant identified uses of the substance or mixture and uses advised against	<i>Identified uses:</i> emergency light for lifejacket. <i>Uses advised against:</i> uses not listed in the “identified uses” section above.
1.3 – Details of the supplier of the safety data sheet	ALBATROSS S.r.l. Viale A. Gramsci, 13 80122 Napoli (NA), Italy Factory: Roccarainola (NA), Italy <i>E-mail address of the competent person in the field of SDS:</i> info@albatrossrsl.com
1.4 – Emergency telephone number	Tel.: +39.081.826.5444 <i>Opening hours:</i> 8:00 AM – 13:00 PM; 14:00 PM – 5:00 PM

SECTION 2 – Hazards identification

2.1 – Classification of the substance or mixture	N/A
2.2 – Label elements	N/A
2.3 – Items description and other hazards	<p>The product described by this Safety Data Sheet is composed of a LED light powered by a Li-MnO₂ battery. The device consists of a sealed unit made of polycarbonate containing the internal elements with automatic activation in contact with water and with a stand-by switch.</p> <p>The switching-on of the device is provided by contact only with water. During average store and transport condition, the unintentional activation of the device is not possible.</p> <p>The device is not dangerous if intact and used in normal conditions, according to the manufacturer’s instructions.</p> <p>Any dangers that might arise from a not proper use of the lithium metal battery contained inside are: fire, overheating and development of toxic fumes.</p>

SECTION 3 – Composition/information on ingredients

3.1 – Substance	N/A
3.2 – Mixture	<p>This product has been identified as “article” in accordance with the Reg. (CE) 1907/2006 “REACH” and Reg. (CE) 1272/2008 “CLP”.</p> <p>Each device is composed of a rescue LED light for lifejackets on which a lithium metal battery is installed, enclosed by a polycarbonate housing.</p>

**ALBALIGHT****Composition of the battery**

Substance	Identification number	Quantity	Classification (Reg. CE 1272/2008)
lithium	CAS n. 7439-93-2	1.0 – 2.0 % (0.43 g)	H314 <i>Skin Corr. 1B</i> H260 <i>Water-react. 1</i>
carbon	CAS n. 7440-44-0	0.5 – 1.0 %	<i>not classified</i>
manganese dioxide	CAS n. 1313-13-9	30.0 – 40.0%	H332 <i>Acute Tox. 4 (inhal.)</i> H302 <i>Acute Tox. 4 (oral)</i>
1,2-dimetoxyethane	CAS n. 110-71-4	3.0 – 4.0 %	H225 <i>Flam. Liq. 2</i> H315 <i>Skin Irrit. 2</i> H332 <i>Acute Tox. 4 (inhal)</i> H360FD <i>Repr. 1B</i>
propylene carbonate	CAS n. 108-32-7	3.0 – 4.0 %	H319 <i>Eye irrit. 2</i>
lithium perchlorate	CAS n. 7791-03-9	0.5 – 1.0 %	H272 <i>Ox. Sol. 2</i> H315 <i>Skin Irrit. 2</i> H319 <i>Eye Irrit. 2</i> H335 <i>STOT SE 3</i>

SECTION 4 – First aid measures**4.1 – Description of first aid measures**

Inhalation: in case of inhalation of the organic electrolyte contained in the battery, immediately move the patient to a well ventilated place and keep warm. Contact a physician.

Skin contact: in case of contact with the organic electrolyte contained in the battery, wash thoroughly with soap and water. In the case of symptoms appearance, contact a physician. Remove contaminated clothing.

Eyes contact: in case of contact with the organic electrolyte contained in the battery, flush eyes with plenty of running water for at least 15 minutes, without rubbing. Contact a physician.

Swallowing: do not induce vomiting. Seek immediate medical attention.

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

Inhalation: in case of inhalation of the organic electrolyte contained in the battery, risk of irritation of the respiratory tract and mucous membranes.

Skin contact: in case of contact with the organic electrolyte contained in the battery, risk of skin irritation.

Eyes contact: in case of contact with the organic electrolyte contained in the battery, risk of eyes irritation.

4.3 – Indication of any immediate medical attention and special treatment needed

If symptoms occur, urgently seek medical attention.

SECTION 5 – Firefighting measures**5.1 – Extinguishing media**

Suitable extinguishing media: extinguishing media belonging to class D, carbon dioxide.

Non-suitable extinguishing media: water, foam.



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5.2 – Special hazards arising from the substance or mixture	<p>The device contains lithium metal battery. The organic electrolyte contained in the battery can evaporate and decompose releasing toxic fumes.</p> <p>In case of contact of the lithium metal contained in the battery with water, flammable gases can be released.</p> <p>The incomplete combustion of plastic parts can produce gases and fumes hazardous to health.</p>
5.3 – Advice for firefighters	<p>The use of water can be useful only for lowering the temperature in the event of incipient fire and when the lithium metal contained in the battery is not exposed to direct contact with water.</p> <p>Fight fire from a protected position and keep possibly downwind.</p> <p>Wear suitable PPEs (mask, face shield, gloves).</p> <p>Prevent extinguishing media come in contact with surface water, groundwater and the sewage system.</p>

SECTION 6 – Accidental release measures

6.1 – Personal precautions, protective equipment and emergency procedures	<p>In case of loss of organic electrolyte contained in the lithium battery wear appropriate PPEs to avoid contact with eyes and skin and inhalations of vapors.</p> <p>In case of smoke development, evacuate the area and ventilate thoroughly until total dissipation of the smoke.</p>
6.2 – Environmental precautions	<p>In case of loss of organic electrolyte contained in the lithium battery, avoid contamination of surface water, groundwater and sewage system.</p>
6.3 – Methods and material for containment and cleaning up	<p>In case of loss of organic electrolyte contained in the battery, absorb the liquid with suitable absorbent material (sand, ground, chalk, lime, vermiculite). Isolation and sealing devices containing damaged batteries (if heat development didn't occur) and managed as a hazardous waste (see section 15).</p> <p>Remediate contaminated area with plenty of water. Prevent the wash water coming into contact with surface water and groundwater. Collect the wash water and manage as waste (see section 15). Do not dispose wash water through the sewage system.</p>
6.4 – Reference to other sections	<p>See sections 8, 13 and 15.</p>

SECTION 7 – Handling and storage

7.1 – Precautions for safe handling	<p>The device contains lithium metal batteries.</p> <p>Do not open the device and the batteries. Do not damage, crush or apply excessive mechanical stress.</p> <p>Avoid contact with water as it can cause unintentional activation of the device.</p> <p>Do not expose the device to direct heat, flames, sparks and welding. Risk of fire or explosion.</p>
7.2 – Conditions for safe storage, including any incompatibilities	<p>Avoid the goods come into contact with water during storage and transport.</p> <p>Store the device in a cool, ventilated area away from heat sources and direct sunlight.</p>



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Storage of the devices above 100 °C may cause damage to the batteries and charge loss.

7.3 – Specific end use(s) N/A

SECTION 8 – Exposure controls/personal protection

8.1 – Control parameters N/A

8.2 – Exposure controls

Eyes/face protection: no protection is required during normal use of the device. In case of rupture of the battery wear appropriate eyes protection (goggle, gas mask).

Skin protection: no protection is required during normal use of the device. In case of the rupture of the battery wear gloves resistant to chemicals.

Body protection: no protection is required during normal use of the device. In case of rupture of the battery wear protective clothing resistant to chemicals.

Respiratory protection: no protection is required during normal use of the device. In case of rupture of the battery wear gas mask or respirator.

SECTION 9 – Physical and chemical properties

9.1 – Information on basic physical and chemical properties	a. appearance	LED light in plastic housing
	b. odour	N/A
	c. olfactory threshold	N/A
	d. pH	N/A
	e. melting point/freezing point	N/A
	f. initial boiling point and boiling range	N/A
	g. flash point	N/A
	h. evaporation rate	N/A
	i. flammability (solids, gases)	N/A
	j. upper/lower flammability or explosive limits	N/A
	k. vapour pressure	N/A
	l. vapour density	N/A
	m. relative density	N/A
	n. solubility	N/A
	o. partition coefficient n-octanol/water (K_{ow})	N/A
	p. auto-ignition temperature	N/A
	q. decomposition temperature	N/A
r. viscosity	N/A	
s. explosive properties	N/A	
t. oxidizing properties	N/A	
9.2 – Other information	weight of the device	30 g
	power range	> 8 h
	LED light brightness	> 0.8 cd

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SAFETY DATA SHEET

Vers. 1.0 of 19/04/2024

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battery nominal tension	3 V
battery nominal capacity	1500 mAh
metal Li content	0.43 g

SECTION 10 – Stability and reactivity

10.1 – Reactivity	The product is stable under the conditions described in Section 7.
10.2 – Chemical stability	The product is stable under the conditions described in Section 7.
10.3 – Possibility of hazardous reactions	The product is stable under the conditions described in Section 7.
10.4 – Conditions to avoid	Direct contact with heat sources. Deformation, mechanical stress, disassembly, battery short circuit. Storage for long periods in damp area.
10.5 – Incompatible materials	Strong acids, alkali solutions, strong oxidizers.
10.6 – Hazardous decomposition products	Carbon monoxide (CO), carbon dioxide (CO ₂), hydrogen (H ₂), metal oxides.

SECTION 11 – Toxicological information

11.1 – Information on toxicological effects	No toxicological effects under normal conditions of use. In case of exposure to the content of the battery or in case of smoke development, risk of irritation of skin, eyes and mucous membranes.
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SECTION 12 – Ecological information

12.1 – Toxicity	Under normal conditions of use, no ecological impact.
12.2 – Persistence and degradability	N/A
12.3 – Bioaccumulative potential	N/A.
12.4 – Mobility in soil	N/A.
12.5 – Results of PBT and vPvB assessment	N/A
12.6 – Other adverse effects	N/A

SECTION 13 – Disposal considerations

13.1 – Waste treatment methods	Send for recovery or disposal at authorized sites, in accordance with local and EU legislation.
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**ALBALIGHT****SECTION 14 – Transport information**

14.1 – UN number	UN 3091
14.2 – UN proper shipping name	LITHIUM METAL BATTERIES CONTAINED IN EQUIPMENT
14.3 – Transport hazard class(es)	9
14.4 – Packing group	N/A
14.5 – Environmental hazards	ADR/RID/ADN: not applicable IMO: not applicable ICAO: not applicable
14.6 – Special precautions for user	The transport of dangerous goods, including loading and unloading must be carried out by persons who have received the necessary training required by the modal regulations. The quantity of lithium metal in the device's battery is 0.43 g. For the application of any exemptions to the transport of dangerous goods, refer to the appropriate modal regulations.
14.7 – Transport in bulk according to Annex II of Marpol and the IBC Code	Not available data.

SECTION 15 – Regulatory information

15.1 – Safety, health and environmental regulations/legislation specific for the substance or mixture	The device is a good classified as hazardous for transportation as it contains lithium metal batteries. Applicable modal regulations: ADR, ADN, RID, IMDG, ICAO. Lithium metal batteries contained in equipment are of the type proved to meet the requirements of each test of the UN Manual of Tests and Criteria, Part III, subsection 38.3.
15.2 – Chemical safety assessment	N/A

SECTION 16 – Other information

This information has been compiled from sources considered to be dependable and is, to the best of our knowledge and belief, accurate and reliable as of the date compiled. However, no representation, warranty (either expressed or implied) or guarantee is made to the accuracy, reliability or completeness of the information contained herein.

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Note: this MSDS is not to be considered as a MSDS compiled in accordance with the art. 31 of Regulation (CE) 1907/2006 since the product is defined as "article".

Previous SDS version

version 1.0 – First publication

Abbreviations and acronyms

N/A: not applicable

N.D.: not available data

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

RID: European Agreement concerning the International Carriage of Dangerous Goods by Railroad

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways

IMDG: International Maritime Dangerous Goods Code

ICAO: International Civil Aviation Organization

CAS [Number]: Chemical American Society [Number]

PPE: Personal Protective Equipment.

N/A: not applicable.

Hazard statements mentioned in the Safety Data Sheet:

H225 *Flam. Liq. 2* (flammable liquid Category 2) – Highly flammable liquid and vapour.

H260 *Water-react. 1* (substance or mixture when in contact with water releases flammable gases Category 1) – In contact with water releases flammable gases which may ignite spontaneously.

H272 *Ox. Sol. 2* (oxidizing solid Category 2) – May intensify fire; oxidizer.

H302 *Acute Tox. 4 (oral)* (acute toxicity - swallowing Category 4) – Harmful if swallowed.

H314 *Skin Corr. 1B* (skin corrosion/irritation Category 1B) – Causes severe skin burns and eye damage.

H315 *Skin Irrit. 2* (skin corrosion/irritation Category 2) – Causes skin irritation.

H319 *Eye Irrit. 2* (serious eye damage/irritation Category 2) – Causes serious eye irritation.

H332 *Acute Tox. 4 (inhal)* (acute toxicity inhalation Category 4) – Harmful if inhaled.

H335 *STOT SE 3* (specific target organ toxicity, single exposure Category 3) – May cause respiratory irritation.

H360FD *Repr. 1B* (reproduction toxicity Category 1B) – May damage fertility. Suspected to damage unborn child.

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