

MATERIAL SAFETY DATA SHEET	Page : 1
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	Supersedes : 23/3/2010
	CYALUME

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1. Product identifier : LIGHT STICK

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

1.3. Details of the supplier of the safety data sheet

SUPPLIER :

Name :

Address :

Telephone number :

Telefax number :

MANUFACTURER :

Name : : CYALUME TECHNOLOGIES SAS

Address : : 295 rue de Mayor de Montricher
ZI Les Milles - CS 40435
13591 Aix-en-Provence
FRANCE

Telephone number : : (33) (0) 4 42 37 17 83

Telefax number : : (33) (0) 4 42 37 17 99

Department to contact : : nrizzo@cyalume.com

1.4. Emergency telephone number : ORFILA (France) : 33 (0) 1 45 42 59 59

2. HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

MOST IMPORTANT HAZARDS : **Sticks are hermetically closed articles which do not present any particular risk, as long as they are used according to the manufacturer's recommendations**

Adverse human health effects : : In case of deterioration of the stick, resulting in a leak of the liquid, an exposure is possible
Liquid :
Harmful if swallowed

Environmental effects : : Presents no particular risk to the environment, provided the recommendations concerning disposal (see section 13) and any applicable national or local regulations are complied with

Physical and chemical hazards : : Not classified as flammable by EC criteria but may present a hazard in the event of a fire

Classification of the product : : Not applicable

2.2. Label elements

EC LABELLING : : Light stick : not applicable

- Symbols and indications of danger : : None

- R phrases : : None

- S phrases : : None

2.3. Other hazards : : None, to our knowledge

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3. COMPOSITION / INFORMATION ON INGREDIENTS

ARTICLE : : Plastic article containing an oxalate solution in a glass ampoule immersed in an activator

Hazardous constituents :

Substance name	Contents	CAS No	EC No	Index No	Classification
Oxalate solution :	:	----	----	----	-----
Butyl benzoate :	60 - 80 %	136-60-7	205-252-7	----	-----
					Xn; R22 Xi; R36/38 ----- Acute Tox. 4 (oral) H302 Eye Irrit. 2 H319 Skin Irrit. 2 H315
Activator :	:	----	----	----	-----
Hydrogen peroxide :	< 5 %	7722-84-1	231-765-0	008-003-00-9	-----
					O; R8 R5 Xn; R20/22 C; R35 ----- Ox. Liq. 1 H271 Skin Corr. 1A H314 Acute Tox. 4 (inhal) H332 Acute Tox. 4 (oral) H302

4. FIRST AID MEASURES

4.1. Description of first aid measures

Sticks are hermetically closed articles which do not present any particular risk, as long as they are used according to the manufacturer's recommendations

Inhalation : : Not applicable

Skin contact : : In the event of contact with the liquid :
Rinse with water.
In case of redness or irritation, call a doctor

Eye contact : : In the event of contact with the liquid :
Rinse with plenty of water immediately
If irritation persists, consult an eye specialist

Ingestion : : Liquid :
Consult a doctor

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 : No information available

5. FIRE-FIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media : : Any extinguishing agent can be used

Not suitable extinguishing media : : None to our knowledge. If there is a fire close by, use suitable extinguishing agents

5.2. Special hazards arising from the substance or mixture : : If exposed to high temperatures, which may result of a wrong utilisation or of the environment, leaks of liquid may occur potentially releasing decomposition products of the liquid contained in the article

5.3. Advice for fire-fighters : : Do not attempt to fight the fire without suitable protective equipment :
Complete protective clothing
Self-contained breathing apparatus

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6. ACCIDENTAL RELEASE MEASURES

- 6.1. Personal precautions, protective equipment and emergency procedures : No flames, no sparks. Eliminate all sources of ignition.
- 6.2. Environmental precautions : : This product does not present any particular risk for the environment
- 6.3. Methods and material for containment and cleaning up
- Recovery : : Recover the product by mechanical means.
- Disposal : : Dispose of at a licensed waste collection point
- 6.4. Reference to other sections : For further information see section 13

7. HANDLING AND STORAGE

- 7.1. Precautions for safe handling
- Technical measures : : Does not require any specific or particular technical measures
- Precautions : : Sticks are hermetically closed articles which do not present any particular risk, as long as they are used according to the manufacturer's recommendations
- Safe handling advice : : Comply with instructions for use (refer to technical sheet)
- 7.2. Conditions for safe storage, including any incompatibilities
- Technical measures : : Does not require any specific or particular technical measures
- Storage conditions :
- Recommended : : Store :
- away from any source of ignition
- in a cool, dry area.
- Incompatible materials : : Oxidizing materials
Reducing materials
Acids
Bases
- Packaging materials :
- Recommended : : Original packaging
- 7.3. Specific end use(s) : No information available

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1. Control parameters
- Engineering measures : : No specific measures are required provided the product is handled in accordance with the general rules of occupational hygiene and safety.
- Occupational exposure limits :
- France : : Hydrogen peroxide : VME : 1.5 mg/m³ (1 ppm)
- Germany : : Hydrogen peroxide : MAK value: 1.4 mg/m³ (1 ppm)
- 8.2. Exposure controls
- Personal protective equipment : : Not required in normal use
In case of a leak of the liquid :
- Hand protection : : Protective rubber gloves

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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state :	: Solid
Colour :	: variable
Odour :	: none
Olfactory limit :	: Not determined
pH :	: Not applicable
Specific temperatures :	
- Boiling :	: Not determined
- Melting point :	: 260 °C
Decomposition temperature :	: Not determined
Flammability characteristics :	
- Flash point :	: Liquid : 93.3 °C
- Auto-ignition temperature :	: Not determined
Oxidizing properties :	: Non oxidizing material according to EC criteria
Explosive limits in air :	: Not determined
Vapour pressure :	: Not determined
Vapour density (air = 1) :	: Not determined
Relative density (water = 1) :	: Not determined
Solubility :	: Not determined
Octanol/water partition coefficient :	: Not determined
Kinematic viscosity :	: Not determined
Evaporation rate :	: Not determined
9.2 Further information :	: No information available

10. STABILITY AND REACTIVITY

10.1. Reactivity	: To our knowledge, the product does not present any particular risk
10.2. Chemical stability	: Stable at ambient temperature and under normal conditions of use
10.3. Possibility of hazardous reactions	: None under normal conditions.
10.4. Conditions to avoid	: Heat, sparks, open flames, ignition source
10.5. Incompatible materials	: - strong oxidizing agents - bases - reducing materials - acids
10.6. Hazardous decomposition products	: Liquid : On combustion or on thermal decomposition (pyrolysis) releases : Carbon oxides (CO, CO2)

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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11. TOXICOLOGICAL INFORMATION (continued)

Product as it is :	: Not specifically applicable to the product (as is).
Acute toxicity :	: Liquid : Harmful if swallowed Butyl benzoate : LD 50 oral (rat) : 735 mg/kg (published data)
Local effects :	: Liquid : Not irritative (published data)
Sensitization :	: Liquid : No sensitizing effet reported
Repeated dose toxicity :	: No additional information available.
Specific effects :	
- Carcinogenicity :	: No additional information available.
- Mutagenicity :	: No additional information available.
- Reproductive toxicity :	: No additional information available.

12. ECOLOGICAL INFORMATION

Product as is :	: Not specifically applicable to the product (as is).
12.1. Toxicity	: Liquid : No information available, however this product is not considered to present any particular risk for the aquatic environment.
12.2. Persistence and degradability	: No information available
12.3. Bioaccumulative potential	: No information available
12.4. Mobility in soil	: No information available
12.5. Results of PBT and vPvB assessment	: No information available
12.6. Other adverse effects	: No information available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods	
WASTE FROM PRODUCT :	
Destruction/Disposal :	: Dispose of in accordance with relevant local regulations
CONTAMINATED PACKAGING :	
Destruction/disposal :	: Recycle following cleaning or dispose of at an authorised site
NOTE :	: The user's attention is drawn to the possible existence of specific European, national or local regulations regarding disposal

14. TRANSPORT INFORMATION

14.1. UN number	: Not restricted
14.2. UN proper shipping name	: Not restricted
14.3. Transport hazard class(es)	: Not restricted
14.4. Packing group	: Not restricted

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14. TRANSPORT INFORMATION (continued)

- 14.5. Environmental hazards : Not restricted
- 14.6. Special precautions for user : No information available
- 14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code : No information available
- NOTE : : The above regulatory prescriptions are those valid on the date of publication of this sheet.
Given the possible evolution of transport regulations for hazardous materials, in case the date of issue is older than 12 months, compared to the current one, it would be advisable to check their validity with your commercial agency

15. REGULATORY INFORMATION

- 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture : No information available
- 15.2. Chemical Safety Assessment : No information available

16. OTHER INFORMATION

- R phrases text of § 3 : : R5 : Heating may cause an explosion.
R8 : Contact with combustible material may cause fire.
R20/22 : Harmful by inhalation and if swallowed.
R22 : Harmful if swallowed.
R35 : Causes severe burns.
R36/38 : Irritating to eyes and skin.
- H phrases text of § 3 : : H271 : May cause fire or explosion; strong oxidizer.
H302 : Harmful if swallowed.
H314 : Causes severe skin burns and eye damage.
H315 : Causes skin irritation.
H319 : Causes serious eye irritation.
H332 : Harmful if inhaled.
- Restrictions on use : : This product must not be used for other applications that mentioned in §1.
Comply with instructions for use (refer to technical sheet)
- * Update : : This sheet was updated (refer to the date at the top of this page)
This sheet has been revised completely (changes were not marked)
- Safety data sheet established by : : LISAM SERVICES - TELEGIS
6 rue des Boucheries F-60400 NOYON
www.reachelp.com
Safety Made Easy with www.lisam.com

This sheet complements the technical sheets but does not replace them. The information given is based on our knowledge of the product, at the time of publication. It is given in good faith.

Besides, the attention of the user is drawn to the possible risk incurred by using the product for any other use than that for which it was intended.

In no way does this exempt the user from knowing and applying all the regulations controlling his activity. He alone will take on the responsibility for taking the precautions involved by the use of the product.

The aim of all the mandatory regulations mentioned is just to help the user to fulfil his obligations regarding the use of hazardous products.

This information must not be considered exhaustive. It does not exempt the user from ensuring that other obligations than those

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mentioned could apply, related to the storage and use of the product, this being his sole responsibility.

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