

# SAFETY DATA SHEET

In accordance with 453/2010 and 1272/2008

(All references to EU regulations and directives are abbreviated into only the numeric term)

Date of compilation 2012-01-12

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Trade name **Lightstick**

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

Identified uses Lightstick

Uses that are advised against

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

Company Scandinavian Lightstick AB  
Norrköpingsvägen 38  
SE-61244 FINSPÅNG  
Contact person Karljohan Ramlöv  
Telephone +46 (0)122-189 82  
E-Mail info@scalight.se

### 1.4. Emergency telephone number

In case of emergency contact toxicological information, emergency tel 112 (within Europe) or 911 (for USA and Canada). For other countries, use the built-in emergency number in your cell phone

For non-emergency poison information, see <http://www.who.int/ipcs/poisons/centre/directory/euro/en/>

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

Classification in accordance with 1272/2008

Upon assessment, this article is not classified as hazardous according to 1272/2008.

Classification in accordance with 1999/45/EG

Articles do not apply to 67/548 and 1999/45/EG.

### 2.2. Label elements

Hazard pictograms Not applicable  
Signal words Not applicable  
Hazard statements Not applicable

### 2.2. Label elements(1999/45/EG)

C.f. section 16.

### 2.3. Other hazards

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

This product should be considered as an article according to 1907/2006 Article 3.

### 3.2. Mixtures

Note that the table shows known hazards of the ingredients as absolutely pure. These hazards are reduced or eliminated when mixed or diluted, c.f. Section 16d.

Constituent	Classification	Concentration
<b>TRIBUTYL o-ACETYL CITRATE</b>		
CAS No 77-90-7	<i>No environmental hazard, No tox haz, Combust Liq</i>	90 - 95%
EC No 201-067-0		

<b>TERT-BUTANOL</b>		
CAS No 75-65-0	Flam Liq 2, Acute Tox 4vapour; H225, H332	1 - 5%
EC No 200-889-7	Xn F; R11 R20 R36/37	
Index No 603-005-00-1		
<b>HYDROGEN PEROXIDE</b>		
CAS No 7722-84-1	Ox Liq 1, Acute Tox 4oral, Acute Tox 4vapour, Skin Corr 1A; H271, H302, H332, H314	0,5 - 1%
EC No 231-765-0	H314	
Index No 008-003-00-9	C O; R5 R8 R35 R20/22	

Occurrence of any impurity, stabilising additive, or individual ingredients other than the main ingredient is indicated by the chemical name and the purity level.

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

#### Generally

No special measures are considered to be necessary: if symptoms do occur however, call a doctor/physician.

#### Upon breathing in

Let the injured person rest in a warm place with fresh air; If symptoms remain call a doctor/physician.

#### Upon contact with the eyes

Immediately rinse with lukewarm water for 15 - 20 minutes with eyes kept wide open; If symptoms persist, call a doctor/physician.

#### Upon skin contact

Flush with lots of water for at least 5 minutes.

#### Upon ingestion

First rinse your mouth carefully and SPIT OUT the water. Then drink at least half a litre of water, if possible with active carbon, and then induce vomiting. Contact Poison Information Centre (emergency number 112).

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

Information on symptoms are ambiguous or missing for this product.

## SECTION 5: FIREFIGHTING MEASURES

### 5.0 General measures in case of fire or imminent fire

Alert the Fire Department tel 112 (in Europe). Save persons in danger, first. Remove gas cylinders, flammable articles and oxidising material.

### 5.1. Extinguishing media

#### Recommended extinguishing agents

Extinguish with materials intended for the surrounding fire.

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

#### Dangerous combustion gases

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning.

Produces fumes containing harmful gases (carbon monoxide and carbon dioxide) when burning, and, in case of incomplete combustion, aldehydes and other toxic, harmful, irritant or environmentally harmful substances.

#### Particular risks upon fire extinguishing

### 5.3. Advice for firefighters

In case of fire use a respirator mask.

### 5.4. Other information

#### Fire properties of the product

The product is not hazardous in the flammable sense.

The product does not oxidise.

#### Particular risks in case of fire

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Use suitable allergy-tested protective gloves when cleaning up.

### 6.2. Environmental precautions

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

Adsorb the liquid with an inert adsorbent, Vermiculite, for example. Collect the material for disposal at a waste disposal facility.

Contaminated products should be treated as chemical waste and declared as non-hazardous goods.

### 6.4. Reference to other sections

For choice of gloves, c.f. Section 8.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

#### 7.1.1.a Recommendations specified to allow safe handling of the substance or mixture

#### 7.1.2. Advice on general occupational hygiene

Not indicated

Not indicated

### 7.2. Conditions for safe storage, including any incompatibilities

#### 7.2.b3 How to control the effects of temperature

Do not store above normal room temperature.

#### 7.2.d2 Specific designs for storage rooms or vessels

#### 7.2.d4 Packaging compatibilities

Store only in the original package.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### 8.1.1. National limit values, Sweden

TERT-BUTANOL

Time-weighted-average exposure limit (TWA) 50 ppm 150 mg/m<sup>3</sup> Short term exposure limit (STEL) 75 ppm 250 mg/m<sup>3</sup>

Other ingredients (cf. Section 3) have no hygienic limit values.

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

For the safety and health protection of workers, no special measures is needed for this product besides the general obligations in EU directive 89/391 and national occupational legislation.


#### 8.2.2. Individual protection measures, such as personal protective equipment

##### 8.2.2.a Eye/face protection.

Use protective glasses, safety goggles, or a visor.


Eye protection should be worn if there is any danger of direct exposure or splashing.

##### 8.2.2.b1 Hand protection.

Protective gloves are normally not needed due to the properties of this product, but may be necessary for other reasons, e.g. mechanical risks, temperature conditions or microbiological risks. Very sensitive persons can use gloves of PVC or polyethylene labelled "Low Chemical resistant" or "Waterproof" or with the pictogram indicated here 

Use of gloves of the following materials are dissuaded due to the risk of allergy: Natural rubber, mixture of neoprene- and natural rubber, nitrile- or acrylonitrile-butadiene rubber. Also note that added powder or other lubricants may contain allergens. Never apply such products without consulting the manufacturer or occupational expert.

Protection gloves shall only exceptionally be used for longer time than one hour. For service work or work lasting more than 30 minutes choose gloves of high quality (Class 4-6). For work up to 30 minutes gloves Class 2, and up to 10 minutes Class 1 are sufficient. The gloves shall cover as much of the forearms as needed for the work.

Choose mechanical strength dependant on the kind of work according to this pictogram with four digits, indicating resistance against abrasion, blade cut, tear and puncture, where 1 is lowest performance and 4 or 5 is best 

##### 8.2.2.b2 Other skin protection.

##### 8.2.2.c Respiratory protection.

Protective breathing equipment should only be required in extreme work-situations. Consult the manufacturer if this is the case.

Dust filter IIb (P2) may be required.

### 8.2.3. Environmental exposure controls

For limitation of environmental exposure, see Section 12.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### 9.1. Information on basic physical and chemical properties

a) Appearance	State of aggregation: Solid article
	Colour: Not indicated
d) pH	Not applicable
g) Flash point	Not applicable
m) Relative density	1,05 kg/L
s) Explosive properties	C.f. section 2 and 10

## SECTION 10: STABILITY AND REACTIVITY

### Stability

The product is stable.

## SECTION 11: TOXICOLOGICAL INFORMATION

### General or unspecific toxicity

The product is not classified as toxic.

### Toxicokinetics, metabolism and distribution

#### acute effects

Not classified as an acutely toxic substance.

### Corrosive and irritating effects

The product is not corrosive. Minor irritation cannot be ruled out for persons who are prone/susceptible.

### Other toxicologic information.

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

#### General information

This product consists of easily degradable naturally occurring or nature identical substances, mainly obtained from renewable sources, whereby the global environmental load may be considered to be negligible. In the local environment minor ecological effects may occur in case of large discharge.

### Mobility

#### Persistence and degradability

The product degrades in the natural environment.

#### Bioaccumulative potential

Neither this product, nor its contents, accumulates in nature.

### Other harmful effects

#### Effect on the local environment

This product degrades rapidly but large emission within a short period of time may be harmful to the local environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste handling for the product

#### General guidelines for waste handling

Also take local regulations for dealing with waste into account.

Cf. also national waste regulations.

#### Recycling of the product

This product is not usually recycled.

### Transportation of waste

#### Classification of waste in accordance with ADR-S Supplement S (Updated: SRVFS 2005:8)

Waste class J(0) - Does not have adverse effects on health or the environment.

## SECTION 14: TRANSPORT INFORMATION

Not classified as dangerous goods

## SECTION 15: REGULATORY INFORMATION

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

Not applicable.

### 15.2. Chemical safety assessment

Assessment and chemical safety report in accordance with 1907/2006 Annex I has not yet been performed.

## SECTION 16: OTHER INFORMATION

### 16a. Indication of where changes have been made to the previous version of the safety data sheet

#### Revisions of this document

This is the first version.

### 16b. Legend to abbreviations and acronyms used in the safety data sheet

#### Full texts for Hazard Class and Category Code mentioned in section 3

<i>No environmental hazard</i>	Not classified to have any environmental hazard
<i>No tox haz</i>	Not classified as toxic
<i>Combust Liq</i>	Combustible liquids with flash points > 93 C
<i>Flam Liq 2</i>	Flammable liquid (Category 2)
<i>Acute Tox 4vapour</i>	Acute toxicity (Category 4 vapours)
<i>Ox Liq 1</i>	Oxidising liquids (Category 1)
<i>Acute Tox 4oral</i>	Acute toxicity (Category 4 oral)
<i>Skin Corr 1A</i>	Corrosive (Category 1A)

### 16c. Key literature references and sources for data

#### Sources for data

Primary data for the calculation of the hazards have preferentially been taken from the official European classification list, 1272/2008 Annex I, as updated to 2012-02-06.

Where such data is lacking, in the second place the documentation on which this official classification is based, e.g. IUCLID (International Uniform Chemical Information Database) was used. In the third place was used information from reputable international chemical suppliers, and in the fourth from other available information, e.g. safety data sheet from other companies or information from non-profit associations, whereby the reliability of the source was judged by an expert. If, in spite of that, reliable information was not found, the hazards were judged by expert, based on the properties of similar substances, and according to the principles in 1907/2006 and 1272/2008.

#### Full texts for Regulations mentioned in this Safety Data Sheet

453/2010	COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)
1272/2008	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006
1999/45/EG	DIRECTIVE 1999/45/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 31 May 1999 concerning the approximation of the laws, regulations and administrative provisions of the Member States relating to the classification, packaging and labelling of dangerous preparations
67/548	Council Directive 67/548/EEC of 27 June 1967 on the approximation of laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances DIRECTIVES COMMISSION DIRECTIVE 2008/58/EC of 21 August 2008 amending, for the purpose of its adaptation to technical progress, for the 30th time, Council Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances
1907/2006	REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC Article 3 COMMISSION REGULATION (EC) No 552/2009 of 22 June 2009 amending Regulation (EC) No

- 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) as regards Annex XVII
- 89/391 COUNCIL DIRECTIVE (89/391/EEC of 12 June 1989 on the introduction of measures to encourage improvements in the safety and health of workers at work
- 1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC Annex I
- 1272/2008 REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 Annex I
- 1907/2006 REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC

**16d. Methods of evaluating information referred to in 1272/2008 article 9 which was used for the purpose of classification**

The calculation of the hazards of this mixture has been performed as an evaluation by applying a weight of evidence determination using expert judgement in accordance with 1272/2008 Annex I weighing all available information having a bearing on the determination of the hazards of the mixture, and in accordance with 1907/2006 Annex XI.

**16e. List of relevant R phrases, hazard statements, safety phrases and/or precautionary statements**

**Full text for risk phrases mentioned in section 3**

- R11 Highly flammable
- R20 Harmful by inhalation
- R36/37 Irritating to eyes and respiratory system
- R5 Heating may cause an explosion
- R8 Contact with combustible material may cause fire
- R35 Causes severe burns
- R20/22 Harmful by inhalation and if swallowed

**Full texts for hazard statements mentioned in section 3**

- H225 Highly flammable liquid and vapour
- H332 Harmful if inhaled
- H271 May cause fire or explosion; strong oxidizer
- H302 Harmful if swallowed
- H314 Causes severe skin burns and eye damage

**16f. Advice on any training appropriate for workers to ensure protection of human health and the environment**

**Warning for misuse**

This product can cause injuries if not used properly. The manufacturer, the distributor or the supplier are not responsible for adverse effects if the product is not handled in accordance with its intended use.

**Other relevant information**

**Label information in accordance with 1999/45/EG**

Articles do not apply to 67/548 and 1999/45/EG.