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

- 1.1 Product identifier
- Trade name: Activator for glow stick

- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Application of the substance / the mixture TOY, PARTY ITEMS, DECORATION

- 1.3 Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  XIAMEN LONG AFTERGLOW CO., LTD
  NO. 1045, TONG JI ZHONG ROAD, TONG AN DISTRICT, XIAMEN, CHINA
  Tel: 0592-3675699
  E-mail: yolanda@glo-novelty.com
- Only Representative / other EU contact point: Not available
- Further information obtainable from: XIAMEN LONG AFTERGLOW CO., LTD

- 1.4 Emergency telephone number:
  Yolanda Hu
  Tel: 0086 592 3675699

  UNITED KINGDOM
  National Poisons Information Service
  Tel: +44 (0) 844 892 0111

- 1.5 Reference number: SHTY1504000006214-SH; SHATY1507843501

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008
  The product is not classified according to the CLP regulation.

- Information concerning particular hazards for human and environment:
  The product does not have to be labelled due to the calculation procedure of Regulation (EC) No 1272/2008.
- Classification system:

- 2.2 Label elements
- Labelling according to Regulation (EC) No 1272/2008: Not applicable
- Hazard pictograms: Not applicable
- Signal word: Not applicable
- Hazard-determining components of labelling: Not applicable
- Hazard statements: Not applicable
- Precautionary statements: Not applicable

- 2.3 Other hazards
- Results of PBT and vPvB assessment
- PBT: Not applicable
- vPvB: Not applicable

SECTION 3: Composition/information on ingredients

- 3.2 Mixtures
- Description:
  Mixture of the substances listed below with nonhazardous additions.
  For the wording of the listed risk phrases refer to section 16.

(Contd. on page 2)
Trade name: Activator for glow stick

- Composition:

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<th>131-11-3</th>
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<td>Skin Corr. 1A, H314;</td>
<td>Acute Tox. 4, H302; Acute Tox. 4, H332</td>
</tr>
</tbody>
</table>

(Contd. of page 1)

SECTION 4: First aid measures

- 4.1 Description of first aid measures
- After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
  If skin irritation continues, consult a doctor.
- After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:
  Rinse out mouth with water.
  Never give anything by mouth to an unconscious person.
  If symptoms persist consult doctor.

- 4.2 Most important symptoms and effects, both acute and delayed: No further relevant information available.

- 4.3 Indication of any immediate medical attention and special treatment needed
  No further relevant information available.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

- 5.2 Special hazards arising from the substance or mixture
  No further relevant information available.

- 5.3 Advice for firefighters
- Protective equipment:
  Wear fully protective suit.
  Mouth respiratory protective device.

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures
  Wear protective equipment. Keep unprotected persons away.
  Ensure adequate ventilation
  Use respiratory protective device against the effects of fumes/dust/aerosol.
  Avoid contact with eyes.
  Avoid contact with skin.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.

- 6.3 Methods and material for containment and cleaning up:
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  Dispose contaminated material as waste according to item 13.

(Contd. on page 3)
Trade name: Activator for glow stick

- 6.4 Reference to other sections
  See Section 7 for information on safe handling.
  See Section 8 for information on personal protection equipment.
  See Section 13 for disposal information.

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling
  Ensure good ventilation/exhaustion at the workplace.
  Keep receptacles tightly sealed.
  Keep away from heat and direct sunlight.
  Prevent formation of aerosols.
  Avoid contact with skin and eyes.

- Information about fire - and explosion protection:
  Protect from heat.
  Keep respiratory protective device available.

- 7.2 Conditions for safe storage, including any incompatibilities:
  - Requirements to be met by storerooms and receptacles:
    Store in a cool location.
    Store only in the original receptacle.
  - Information about storage in one common storage facility:
    Store away from foodstuffs.
    Store away from flammable substances.
  - Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.

- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters
  - Ingredients with limit values that require monitoring at the workplace:
    131-11-3 dimethyl phthalate (89,5%)
      WEL (Great Britain) Short-term value: 10 mg/m³
      Long-term value: 5 mg/m³
      VME (France)   Long-term value: 5 mg/m³
    7722-84-1 hydrogen peroxide (2,3%)
      MAK (Germany)  Long-term value: 0,71 mg/m³, 0,5 ppm
      WEL (Great Britain) Short-term value: 2,8 mg/m³, 2 ppm
      Long-term value: 1,4 mg/m³, 1 ppm
      VME (France)   Long-term value: 1,5 mg/m³, 1 ppm
  - DNELs: Not applicable
  - PNECs: Not applicable
  - Additional information: The lists valid during the making were used as basis.

- 8.2 Exposure controls
  - Based on composition shown in Section 3, the following measures are suggested for occupational safety measure:
    - Appropriate engineering controls: See Section 7 for information about design of technical facilities.
    - Personal protective equipment:
    - Respiratory protection: Suitable respiratory protective device recommended.
Trade name: Activator for glow stick

(Contd. of page 3)

- Protection of hands:

  Protective gloves

The glove material has to be impermeable and resistant to the product, substance, and preparation. Due to missing tests no recommendation to the glove material can be given for the product, substance, and preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion, and the degradation.

- Material of gloves:

  The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material:

  The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:

  Tightly sealed goggles

- Environmental exposure controls:

  Control measures must be made in accordance with Community environmental protection legislation.

---

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

  - Appearance:
    - Form: Liquid
    - Colour: Transparent
  
  - Odour:
    - Odourless
  
  - Odour threshold:
    - Data not available.

  - pH-value:
    - Data not available.

  - Change in condition
    - Melting point/Melting range: Data not available.
    - Boiling point/Boiling range: Data not available.
    - Freezing point: Data not available

  - Flash point: Data not available

  - Flammability (solid, gaseous): Not applicable

  - Auto-Ignition temperature: Data not available

  - Decomposition temperature: Date not available.

  - Self-igniting: Product is not self-igniting.

  - Explosive properties: Product does not present an explosion hazard.

  - Explosion limits:
    - Lower: Data not available.
    - Upper: Data not available.

  - Oxidising properties: Data not available.

  - Vapour pressure: Data not available.

(Contd. on page 5)
Trade name: Activator for glow stick

- Density: Data not available.
- Relative density: Data not available.
- Vapour density: Data not available.
- Evaporation rate: Data not available.

- Solubility in / Miscibility with water: Data not available

- Partition coefficient (n-octanol/water): Data not available.

- Viscosity:
  - Dynamic: Data not available.
  - Kinematic: Data not available.

- 9.2 Other information: No further relevant information available.

SECTION 10: Stability and reactivity

- 10.1 Reactivity: No decomposition if used according to specification.
- 10.2 Chemical stability: Stable under recommended storage conditions.
- 10.3 Possibility of hazardous reactions: No dangerous reactions known.
- 10.4 Conditions to avoid: No further relevant information available.
- 10.5 Incompatible materials: No further relevant information available.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects:
  - Acute toxicity

  - LD/LC50 values relevant for classification:
    131-11-3 dimethyl phthalate
    Oral LD50 6800 mg/kg (rat)
    Dermal LD50 >23800 mg/kg (rabbit)

    7722-84-1 hydrogen peroxide
    Oral LD50 376 mg/kg (rat)
    Dermal LD50 3000 mg/kg (rat)
    Inhalative LC50/4 h 2 mg/l (rat)

  - Primary irritant effect:
  - Skin corrosion/irritation: Irritating effect possible.
  - Serious eye damage/irritation: Irritating effect possible.
  - Respiratory or skin sensitisation: Sensitization possible.

  - Additional toxicological information:
    The product is not subjected to classification according to the calculation method based on the EU Directives 67/548/EEC, 1999/45/EC and Regulation 1272/2008/EC.
    Toxicokinetics, metabolism and distribution: Data not available
    Acute effects (acute toxicity, irritation and corrosivity): Data not available
    Repeated dose toxicity: Data not available
    CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): Data not available

(Commd. on page 6)
SECTION 12: Ecological information

- 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- 12.3 Bioaccumulative potential No further relevant information available.
- 12.4 Mobility in soil No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
- PBT: Not applicable.
- vPvB: Not applicable.
- 12.6 Other adverse effects No further relevant information available.
- 12.7 Additional ecological information:
  General notes: Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation: Smaller quantities can be disposed of with household waste.
- Uncleaned packaging:
  Recommendation: Disposal must be made according to official regulations.

SECTION 14: Transport information

- 14.1 UN-Number
  ADR, IMDG, IATA: Not applicable
- 14.2 UN proper shipping name
  ADR, IMDG, IATA: Not applicable
- 14.3 Transport hazard class(es)
  ADR, IMDG, IATA: Not applicable
- 14.4 Packing group
  ADR, IMDG, IATA: Not applicable
- 14.5 Environmental hazards
  Marine pollutant: No
- 14.6 Special precautions for user
  Not applicable.
- 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  Not applicable.
- UN "Model Regulation": -
**SECTION 15: Regulatory information**

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

  - MAK (German Maximum Workplace Concentration)
    - 7722-84-1 hydrogen peroxide
    - National regulations:
      - Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
  - Other regulations, limitations and prohibitive regulations
    - SVHC Candidate List of REACH Regulation Annex XIV Authorisation (17/12/2014)
      - None of the ingredients is listed.
    - REACH Regulation Annex XVII Restriction (2/3/2015)
      - None of the ingredients is listed.
    - REACH Regulation Annex XIV Authorization List (14/8/2014)
      - None of the ingredients is listed.

- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

- Relevant phrases
  - H271 May cause fire or explosion; strong oxidiser.
  - H302 Harmful if swallowed.
  - H314 Causes severe skin burns and eye damage.
  - H332 Harmful if inhaled.
  - R20/22 Harmful by inhalation and if swallowed.
  - R35 Causes severe burns.
  - R5 Heating may cause an explosion.
  - R8 Contact with combustible material may cause fire.


**DISCLAIMER OF LIABILITY**
The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

**Abbreviations and acronyms:**
- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHSA: Globally Harmonized System of Classification and Labelling of Chemicals
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- DNEC: Derived No-Effect Level (REACH)
- PNEC: Predicted No-Effect Concentration (REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- Ox. Liq. 1: Oxidising Liquids, Hazard Category 1
- Acute Tox. 4: Acute toxicity, Hazard Category 4
- Skin Corr. 1A: Skin corrosion/irritation, Hazard Category 1A
<table>
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<tr>
<th>Trade name: Activator for glow stick</th>
</tr>
</thead>
</table>

*(Concl. of page 7)*

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

- 1.1 Product identifier
  - Trade name: Chemiluminescer for red glow stick

- 1.2 Relevant identified uses of the substance or mixture and uses advised against
  - Application of the substance / the mixture: TOY, PARTY ITEMS, DECORATION

- 1.3 Details of the supplier of the safety data sheet
  - Manufacturer/Supplier: XIAMEN LONG AFTERGLOW CO., LTD
    NO. 1043, TONG JI ZHONG ROAD, TONG AN DISTRICT, XIAMEN, CHINA
    Tel: 0592-2675699
    Email: yolanda@glo-novelty.com
  - Only Representative / other EU contact point: Not available
  - Further information obtainable from: XIAMEN LONG AFTERGLOW CO., LTD

- 1.4 Emergency telephone number:
  - Yolanda Hu
  - Tel: 0086-592-3675699

UNITED KINGDOM
National Poisons Information Service
Tel: +44 (0) 844 892 0111

- 1.5 Reference Number: SHTY150500006287-SH; SHATY1507919701

SECTION 2: Hazards identification

- 2.1 Classification of the substance or mixture
  - Classification according to Regulation (EC) No 1272/2008

  ! GHS07

  Acute Tox. 4 H302 Harmful if swallowed.
  Skin Irrit. 2 H315 Causes skin irritation.
  Eye Irrit. 2 H319 Causes serious eye irritation.

  - Classification according to Directive 67/548/EEC or Directive 1999/45/EC

  ! Xa: Harmful
  R22: Harmful if swallowed.

  ! Xi: Irritant
  R36/38: Irritating to eyes and skin.

  - Information concerning particular hazards for human and environment:
    The product has to be labelled due to the calculation procedure of Regulation (EC) No 1272/2008.

  - Classification system:
    The classification is according to the latest edition of the Directive 67/548/EEC, 1999/45/EC and Regulation
    (EC) No. 1272/2008, and extended by company and literature data.

- 2.2 Label elements
  - Labelling according to Regulation (EC) No 1272/2008
    The product is classified and labelled according to the CLP regulation.

  - Hazard pictograms

  ! GHS07

  - Signal word Warning

(Concl. on page 2)
Trade name: Chemiluminescer for red glow stick

Hazard-determining components of labelling:
- butyl benzoate

Hazard statements:
- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.

Precautionary statements:
- P101 If medical advice is needed, have product container or label at hand.
- P102 Keep out of reach of children.
- P103 Read label before use.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P365+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P321 Specific treatment (see on this label).
- P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- P332+P313 If skin irritation occurs: Get medical advice/attention.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3 Other hazards
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

3.2 Mixtures
- Description:
  Mixture of the substances listed below with nonhazardous additions.
  For the wording of the listed risk phrases refer to section 16.

Composition:
- CAS: 135-60-7 butyl benzoate
- EINECS: 205-252-7
- Xn R22; Xi R36/38
- Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319
  85.3%
- CAS: 75203-51-9 bis(2,3,5-trichloro-6-[(pentyloxy)carbonyl]phenyl) oxalate
- EINECS: 278-124-1
  14.5%
- CAS: 112100-07-9 N,N'-Bis(2,6-diisopropylphenyl) -1,6,7,12-tetraphenoxyperylene-3,4,9,10-tetracarboxdiamide
  0.2%

Remark:
All information of substance N,N'-Bis(2,6-diisopropylphenyl) -1,6,7,12-tetraphenoxyperylene-3,4,9,10-tetracarboxdiamide (CAS NO.112100-07-9) is provided by the formulation owner.

SECTION 4: First aid measures

4.1 Description of first aid measures
- General information:
  Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.
- After inhalation:
  Supply fresh air and to be sure call for a doctor.
  In case of unconsciousness place patient stably in side position for transportation.
- After skin contact:
  Immediately wash with water and soap and rinse thoroughly.
  If skin irritation continues, consult a doctor.
- After eye contact:
  Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

(Contd. on page 3)
Safety Data Sheet  

Printing date 22.05.2015  
Revision: 07.05.2015

Trade name: Chemiluminescer for red glow stick

- After swallowing:  
  Rinse out mouth with water.  
  Call for a doctor immediately.  
  Never give anything by mouth to an unconscious person.

- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.

- 4.3 Indication of any immediate medical attention and special treatment needed  
  No further relevant information available.

---

SECTION 5: Firefighting measures

- 5.1 Extinguishing media  
- Suitable extinguishing agents: Use fire extinguishing methods suitable to surrounding conditions.

- 5.2 Special hazards arising from the substance or mixture No further relevant information available.

- 5.3 Advice for firefighters  
- Protective equipment:  
  Wear fully protective suit.  
  Wear self-contained respiratory protective device.

---

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures  
  Ensure adequate ventilation.  
  Keep away from ignition sources.  
  Use respiratory protective device against the effects of fumes/dust/aerosol.  
  Avoid contact with eyes.  
  Avoid contact with skin.

- 6.2 Environmental precautions: Do not allow to enter sewers/surface or ground water.

- 6.3 Methods and material for containment and cleaning up:  
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
  Dispose contaminated material as waste according to item 13.  
  Ensure adequate ventilation.

- 6.4 Reference to other sections  
  See Section 7 for information on safe handling.  
  See Section 8 for information on personal protection equipment.  
  See Section 13 for disposal information.

---

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling  
  Ensure good ventilation/exhaustion at the workplace.  
  Keep receptacles tightly sealed.  
  Keep away from heat and direct sunlight.  
  Prevent formation of aerosols.  
  Avoid contact with eyes and skin.

- Information about fire - and explosion protection: Normal measures for preventive fire protection.

- 7.2 Conditions for safe storage, including any incompatibilities  
  Requirements to be met by storerooms and receptacles:  
  Store in a cool location.  
  Store only in the original receptacle.  

- Information about storage in one common storage facility:  
  Store away from foodstuffs.  
  Store away from flammable substances.

(Contd. on page 4)
Trade name: Chemiluminescer for red glow stick

Store away from oxidising agents.
Do not store together with alkaline materials.

- Further information about storage conditions:
  - Keep container tightly sealed.
  - Store in cool, dry conditions in well sealed receptacles.

- 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

- 8.1 Control parameters
  - Ingredients with limit values that require monitoring at the workplace:
    The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
  - DNELs: Not applicable.
  - PNECs: Not applicable.

- Additional information: The lists valid during the making were used as basis.

- 8.2 Exposure controls
  - Based on the composition shown in Section 3, the following measures are suggested for occupational safety measure
  - Appropriate engineering controls
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing.
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
    See Section 7 for information about design of technical facilities.
  - Personal protective equipment
  - Respiratory protection:
    In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
  - Protection of hands:

Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

- Material of gloves:
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material:
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

- Eye protection:

Tightly sealed goggles

(Contd. on page 5)
SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
  - **General Information**
  - **Appearance:**
    - **Form:** Liquid
    - **Colour:** Red
  - **Odour:** Odourless
  - **Odour threshold:** Data not available.
  - **pH-value:** Data not available.
  - **Change in condition:**
    - **Melting point/Melting range:** Data not available.
    - **Freezing point:** Data not available.
    - **Boiling point/Boiling range:** Data not available.
  - **Flash point:** Data not available.
  - **Flammability (solid, gaseous):** Not applicable.
  - **Auto-ignition temperature:** Data not available.
  - **Decomposition temperature:** Data not available.
  - **Self-igniting:** Product is not selfigniting.
  - **Explosive properties:** Product does not present an explosion hazard.
  - **Explosion limits**
    - **Lower:** Data not available.
    - **Upper:** Data not available.
  - **Oxidizing properties:** Data not available.
  - **Vapour pressure:** Data not available.
  - **Density:**
    - **Relative density:** Data not available.
    - **Vapour density:** Data not available.
    - **Evaporation rate:** Data not available.
  - **Solubility in Miscibility with water:** Data not available.
  - **Partition coefficient (n-octanol/water):** Data not available.
  - **Viscosity**
    - **Dynamic:** Data not available.
    - **Kinematic:** Data not available.
  - **9.2 Other information**
    - No further relevant information available.

SECTION 10: Stability and reactivity

- **10.1 Reactivity**
  - No decomposition if used according to specifications.
- **10.2 Chemical stability**
  - Stable under recommended storage conditions.
- **10.3 Possibility of hazardous reactions**
  - No dangerous reactions known.
- **10.4 Conditions to avoid**
  - No further relevant information available.
Trade name: Chemiluminescer for red glow stick

- 10.5 Incompatible materials: Strong oxidizing agents, Strong bases.
- 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- 11.1 Information on toxicological effects
  - Acute toxicity

<table>
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<tr>
<th>Toxicity</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD/LC50</td>
<td></td>
</tr>
</tbody>
</table>

- Primary irritant effect
- Skin corrosion/irritation Irritant to skin and mucous membranes.
- Serious eye damage/Irritation Irritating effect.
- Respiratory or skin sensitisation Sensitization possible.

- Additional toxicological information:
The product shows the following dangers according to the calculation method based on the EU Directives 67/548/EEC, 1999/45/EC and Regulation 1272/2008/EC:
- Harmful
- Irritant
- Toxicokinetics, metabolism and distribution: Data not available.
- Acute effects (acute toxicity, irritation and corrosivity): Data not available.
- Repeated dose toxicity: Data not available.
- CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction): Data not available.

SECTION 12: Ecological information

- 12.1 Toxicity
  - Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability: No further relevant information available.
- 12.3 Bioaccumulative potential: No further relevant information available.
- 12.4 Mobility in soil: No further relevant information available.
- 12.5 Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
- 12.6 Other adverse effects: No further relevant information available.
- 12.7 Additional ecological information:
  - General notes:
    Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water.
    Do not allow product to reach ground water, water course or sewage system.
    Danger to drinking water if even small quantities leak into the ground.

SECTION 13: Disposal considerations

- 13.1 Waste treatment methods
- Recommendation:
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.

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- Uncleaned packaging
- Recommendation: Disposal must be made according to official regulations.

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SECTION 14: Transport information

- 14.1 UN-Number
  - ADR, IMDG, IATA: Not applicable.

- 14.2 UN proper shipping name
  - ADR, IMDG, IATA: Not applicable.

- 14.3 Transport hazard class(es)
  - ADR, IMDG, IATA: Not applicable.
  - Class: Not applicable.

- 14.4 Packing group
  - ADR, IMDG, IATA: Not applicable.

- 14.5 Environmental hazards
  - Marine pollutant: No

- 14.6 Special precautions for user
  - Not applicable.

- 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
  - Not applicable.

- UN "Model Regulation":

SECTION 15: Regulatory information

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

  - MAK (German Maximum Workplace Concentration)
    - None of the ingredients is listed.

  - National regulations:
    - Water hazard class: Water hazard class 2 (Self-assessment): hazardous for water.

  - Other regulations, limitations and prohibitive regulations

  - SVHC Candidate List of REACH Regulation Annex XIV Authorisation (17/12/2014)
    - None of the ingredients is listed.

  - REACH Regulation Annex XVII Restriction (2/3/2015)
    - None of the ingredients is listed.

  - REACH Regulation Annex XIV Authorisation List (14/8/2014)
    - None of the ingredients is listed.

- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

- Relevant phrases
  - H302 Harmful if swallowed.
  - H315 Causes skin irritation.
  - H319 Causes serious eye irritation.
  - R22 Harmful if swallowed.
  - R36/38 Irritating to eyes and skin.

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The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable.

Abbreviations and acronyms:
ADR: Accord européen sur le transport des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
IMDG: International Maritime Code for Dangerous Goods
IATA: International Air Transport Association
GHS: Globally Harmonised System of Classification and Labelling of Chemicals
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
DNEL: Derived No-Effect Level (REACH)
PNEC: Predicted No-Effect Concentration (REACH)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
Acute Tox. 4: Acute toxicity, Hazard Category 4
Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
Eye Irrit. 2: Serious eye damage/eye irritation, Hazard Category 2

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