

MATERIAL SAFETY DATA

MSDS No.

DATE:

PRODUCT	PRODUCT NAME:	LIGHT STICK Activator Component
IDENTIFICATION	SYNONYMS:	LUMICA LIGHT Activator Component
	CHEMICAL FAMILY:	Mixture
	MOLECULAR FORMULA:	Mixture
	MOLECULAR WGT.:	Mixture

WARNING FLAMMABLE LIQUID AND VAPOR

HARMFUL IF INHALED
CAUSES EYE IRRITATION

OSHA REGULATED COMPONENTS	COMPONENT	CAS.No.	%	TWA/CEILING	REFERENCE
	Butanol,t-	000075-65-0	12-15	100ppm	OSHA/ACGIH
	Dimetyl phthalat	000131-11-3	80-83	5mg/M3	OSHA/ACGIH
	Hydrogen peroxic	007722-84-1	4-5	1ppm	OSHA/ACGIH

NFPA HAZARD RATING	Fire 3 Health 2 - Special	0 Reactivity	FIRE: Liquids and solids that ignited under almost all ambient temperature conditions. HEALTH: Materials which on intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical treatment is given. REACTIVITY: Materials which in themselves are normally stable, even under fire exposure conditions, and which are not reactive water.
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HEALTH HAZARD INFORMATION OVEREXPOSURE: EFFECTS OF The acute oral (rat) and acute (dermal) rabbit LD50 values are both greater than 5g/kg and greater than 10mL/kg, respectively.
Direct contact with this material can cause moderate eye irritation.

Toxicology information on regulated components of this product is as follows:
Acute overexposure to t-butyl alcohol vapor may cause headache, fatigue and dizziness as well as central nervous system depression. It also may be irritating to the mucos membranes. The rat oral LD50 is 3.5g/kg and the rabbit dermal LD50 is greater than 3.4g/kg.
The oral (rat) and the dermal (rabbit) LD50 values for dimethyl phtahlate are 6.9g/kg and 10.0mL/kg respectively. Dimethyl phthalate did not produce skin irritation or sensitization. The acute toxicity of dimethyl phthalate by inhalation is low.

Acute overexposure to hydrogen peroxide vapor can cause eye and respiratory tract irritation. The inhalation LC50 in rats after a 4 hour exposure is 2,000mg/m3. Hydrogen peroxide solution can cause severe irritation to the eyes and skin. The oral LD50 of a 75% solution of hydrogen peroxide in rats is 75mg/kg. The dermal LD50 of a 90% solution is 700mg/kg.

FIRST AID: In case of eye contact, immediately irrigate with plenty of water for 15 minutes. Obtain medical attention if irritation persists.

EXPOSURE Where this materials is not used in a closed system, good enclosure
CONTROL METHODS and local exhaust ventilation should be provided to control exposure. Food, beverages, and tobacco products should not be carried, stored, or consumed where this material is in use. Before eating, drinking, or smoking, wash face and hands woth soap and water. Avoid skin contact. Protective clothing such as impervious gloves, apron, workpants, long sleeve work shirt, or disposable coveralls are recommended to prevent skin contact. For operations where eye or face contact can occur, wear eye protection such as chemical splash proof goggles or face shield. Eyewash equipment and safety shower should be provided in areas of potential exposure. Where exposure are below the Permissible Exposure Limit (PEL), no respiratory protection is required. Where exposure exceed the PEL, use respirator approved by NIOSH for the material and level of exposure. See "GUIDE TO INDUSTRIAL RESPIRATORY PROTECTION" (NIOSH).

FIRE AND FLASH POINT: 83F(28C)
EXPLOSION METHOD: Setaflash Closed Cup
HAZARD FLAMMABLE LIMITS
INFORMATION (%BY VOL): 2.4 Lower; 8.0 Upper (values for t-butyl alcohol)
AUTOIGNITION TEMP: >900F(>482C)(values for t-butyl alcohol)
DECOMPOSITION TEMP: >167F(>75C)
FIRE FIGHTING: Use water spray, alcohol foam, carbon dioxide or dry chemical to extinguish fires. Water stream may be ineffective. Use water to keep containers cool. Water self-contained positive pressure breathing apparatus and full firefighting protective clothing. See Exposure Control Methods for special protective clothing.

REACTIVITY D/ STABILITY: Stable
CONDITIONS TO AVOID: None known
POLYMERIZATION: Will Not Occur
CONDITIONS TO AVOID: None known
INCOMPATIBLE MATERIALS: Strong oxidizing agents and reducing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition or combustion may produce carbon monoxide and/or carbon dioxide.

PHYSICAL APPEARANCE AND Water-white; aromatic
PROPERTIES ODER:

BOILING POINT:	Alcohol fraction boils @ ~ 181F; 83°C
	Dimethyl phthalate fraction boils @ ~ 540F; 282°C
MELTING POINT:	Not Available
VAPOR RPESSURE:	Not Available
SPECIFIC GRAVITY:	1.05
VAPOR DENSITY:	2.55 (air = 1)(value for t-butyl alcohol)
%VOLATILE(BY VOL):	23%
OCTANOL/H2O	
PARTITION COEF:	Not Available
pH:	Neutral
SATURATION IN AIR	
(BY VOL):	Not Available
EVAPORATION RATE:	Not Available
SOLUBILITY IN WATER:	Partial

SPILL OR LEAK STEPS TO BE TAKEN IN Where exposure levels is not known, wear NIOSH approved, positive
PROCEDURES CASE MATERIALS pressure, self contained respirator. Where exposure level is known,
RELEASED OR SPILLED: wear NIOSH approved respirator suitable for level of exposure. In
addition to the protective clothing/equipment in Exposure Control
Methods, wear impervious boots. Cover spills with some inert
absorbent material; sweep up and place in a waste disposal container.
Flush area with water.
Remove sources of ignition.

WASTE DISPOS Disposal must be made in accordance with applicable governmental
regulations.

SPECIAL HANDLING AND Areas containing this material should have fire-safe practices and
PRECAUTIONS STORAGE/OTHER: electrical equipment in accordance with Electrical and Fire Protection
codes (NFPA-30) governing Class I Flammable Liquids.

D.O.T.SHIPPING PROPER SHIPPING FLAMMABLE LIQUID, N.O.S.

INFORMATION NAME:

HAZARD CLASS:	FLAMMABLE LIQUID
UN/NA:	UN1993
D.O.T.HAZARDOUS	(Reportable Quantity of product)
SUBSTANCES:	DIMETHYL PHTHALATE (10.1 lbs-99%)
D.O.T.LABEL REQUIRED:	Flammable Liquid

TSCA This product is manufactured in compliance with all provisions of the
INFORMATION Toxic Substances Control Act, 15 U.S.C.

ENVIRONMENT The following components are defined as toxic chemicals subject to reporting requirements of

INFORMATION Section 313 of Title 111 and of 40 CFR 372 or other EPA regulations.

COMPONENT	CAS.NO.	SARA TITLE 111			RCRA	TCSA 12B	
		TPQ(1bs.)	RQ(1bs.)	SF			
Butanol,t-	0000-75-65-0	1	NONE	NONE	YI	NONE	NO
Dimethyl phthalate	000131-11-3	8	NONE	5,000	YI	U088	YES

PRODUCT CLASSIFICATION UNDER SECTION 311 OF SARA

ACUTE (Y) CHRONIC (N) FIRE (Y) REACTIVE (N) PRESSURE (N)
