

SAFETY DATA SHEET

Date: May 15, 2015
Revision Date:**1. PRODUCT & COMPANY IDENTIFICATION**

PRODUCT NAME : LUMICA 8" 50 GREEN
 PRODUCT CODE : 08017
 COMPANY IDENTIFICATION : LUMICA CORPORATION
 Company name : LUMICA CORPORATION
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2. HAZARD IDENTIFICATION

GHS CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

PHYSICAL HAZARDS
 Flammable liquids : Not classified
 Oxidizing liquids : Not classified
 HEALTH HAZARDS
 Acute toxicity(oral) : Not classified
 Acute toxicity(skin) : Not classified
 Acute toxicity(inhalation: vapor) : Category 5
 Skin corrosion / irritation : Category 3
 Serious eye damages / eye irritation : Not classified
 Germ cell mutagenicity : Not classified
 Reproductive toxicity : Not classified
 Specific target organ toxicity; single exposure : Category 3 (anesthetic action)

ENVIRONMENTAL HAZARDS
 Aquatic environmental toxicity : Not classified

GHS LABEL ELEMENTS
PICTOGRAMS OR HAZARD SYMBOLS

SIGNAL WORD : Warning
 HAZARD STATEMENTS : May be harmful if inhaled
 Causes mild skin irritation
 May cause respiratory irritation (anesthetic action)

PRECAUTIONARY STATEMENTS (For the content liquid)

PREVENTION
 •Wear protective gloves/eye protection/face protection.
 •Wash thoroughly after handling.
 •Avoid release to the environment.

RESPONSE
 •If on skins: Wash with plenty of soap and water.
 •If on skins (or hair): Remove/take off immediately all contaminated clothing.
 Rinse skin with water/shower. Wash contaminated clothing before reuse.
 •If inhaled: Remove person to fresh air and keep comfortable for breathing.
 •if skin irritation occurs: Get medical advice/attention.
 •If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 •If eye irritation persists: Get medical advice/attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

SUBSTANCE/MIXTURE : Mixture

CHEMICAL NAME & COMPOSITION (wt. %)		
(1) Polyethylene		76.2%
(2) Glass		8.7%
(3) Acetyl Tributyl Citrate		6.5%
(4) Dimethyl Phthalate		4.2%
(5) Benzyl Benzoate		1.7%
(6) Diethylene Glycol Monoethyl Ether		1.51%
(7) CPPO		0.93%
(8) Hydrogen Peroxide		0.16%
(9) Fluorescer		< 0.1%
(10) Catalyst		< 0.1%
(11) Antioxidant		< 0.1%

CAS No.	(3) Acetyl Tributyl Citrate	77-90-7
	(4) Dimethyl Phthalate	131-11-3
	(5) Benzyl Benzoate	120-51-4
	(6) Diethylene Glycol Monoethyl Ether	111-90-0
	(7) CPPO	30431-54-0
	(8) Hydrogen Peroxide	7722-84-1

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4. FIRST-AID MEASURES (For the content liquid)

INHALATION
 •Remove victim to fresh air and keep at rest in a position comfortable for breathing.
 •Get medical advice/attention immediately.

SKIN CONTACT
 •Remove/Take off immediately all contaminated clothing and wash thoroughly before reuse.
 •Wash with soap and water.
 •Rinse skin with water/shower.
 •If skin irritation/rash occurs or feel unwell, seek medical advice/attention.

EYES CONTACT
 •Rinse cautiously with water several minutes or more. Remove contact lenses, if present and easy to do. Continue rinsing.
 •If eye irritation persists, get medical advice/attention.
 •Even if it is very small amount contact, rinse by clean water for 15 minutes or more, and seek ophthalmologist's advice/attention.

INGESTION
 •Get medical advice/attention if you feel unwell.

5. FIRE-FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA
 Dry chemical powder, carbon dioxide, large volume of foam.

SPECIFIC EXTINGUISHING METHOD
 •Fighters should work from the windward side.
 •Evacuate all personnel from affected area.

SPECIAL PROTECTIVE FOR FIRE-FIGHTERS

- In the extinction work, an appropriate protective equipment (gloves, glasses, and mask) has to be worn.
- During a fire, hazardous gases may be generated, fire-fighters have to wear self-contained breathing apparatus and other protective equipment.

6. ACCIDENTAL RELEASE MEASURES**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

- Wear appropriate personal protective equipments while clearing up the spills.
- Workers should work from the windward side.
- Evacuate all person downwind from affected area.

ENVIRONMENTAL PRECAUTIONS

Disposal is to be done in compliance with federal, state/provincial and local regulations.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, sawdust). In case of large amount of spillage, surround it by banking to avoid the spills spread out. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. HANDLING AND STORAGE**HANDLING (For the content liquid)****TECHNICAL MEASURE**

Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapor or mist. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust ventilation if vapor or aerosol will be generated. Keep away from heat/sparks/open flames/hot surfaces.

ADVICE ON SAFE HANDLING

Avoid all contact!
Confirm in advance if peroxides exist when operations involving heating such as distillation are carried out.

STORAGE**STORAGE CONDITION**

- Keep container tightly closed. Store in a cool and dark place.
- Store under inert gas.
- Protect from moisture.
- Store in a lockable place.
- Store away from incompatible materials such as oxidizing agents.

PACKING MATERIALS

• Containers which are compliant to the Fire and Disaster Management Act and UN transport regulations should be used.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION (For the content liquid)**FACILITY AND EQUIPMENT MEASURES**

- Provide eye washing tools and safety shower.
- Provide local exhaust ventilation.

CONTROL LIMIT

: Not established

OCCUPATIONAL EXPOSURE LIMITS**•ACGIH**

: TLV-TWA

Dimethyl Phthalate ³ 5 mg/m³

: TLV-TWA

Hydrogen Peroxide ^ε 1 ppm

PERSONAL PROTECTIVE EQUIPMENT

- Respiratory protection : Gas mask, simple gas mask, etc.
- Eye protection : Protection glasses with shroud, or protection surface.
- Hand protection : Protective gloves.
- Skin and body protection : Protective clothing and protection boots.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Columnar solid
Odour	: Odorless
pH	: No data
Melting point	: No data
Boiling point	: No data
Flash point (contents)	: 110 °C (Closed Cup)
Explosion properties	: No data
Vapor pressure	: No data
Vapor density	: No data
Specific gravity	: 0.98 (stick) 1.07 (inner solution)
Solubility in water	: Slightly soluble
Octanol/water partition coefficient	: No data
Ignition point	: No data
Decomposition temperature	: No data

10. STABILITY AND REACTIVITY

STABILITY	: Stable under proper conditions.
REACTIVITY	: No special reactivity has been reported.
CONDITIONS TO AVOID	: Very high or low temperatures and light.
HAZARDOUS DECOMPOSITION PRODUCTS	: Carbon monoxide, Carbon dioxide, Hydrogen chloride ^{1) - 10)}

11. TOXICOLOGICAL INFORMATION

Acute toxicity(oral)	: Not classified. The oral toxicity of this product is estimated to be 49,332 mg/kg based on an assessment of the ingredients ^{2), 4), 5), 8), 9)}
Acute toxicity(skin)	: Not classified. The skin toxicity of this product is estimated to be 147,561 mg/kg based on an assessment of the ingredients ^{2) - 4), 6), 8), 11)}
Acute toxicity(inhalation: vapor)	: Category 5. The inhalation toxicity of this product is estimated to be 1,042.55 mg/L based on an assessment of the ingredients ^{3), 4), 7) - 9)}
Skin corrosion / irritation	: Category 3. The skin corrosion/irritation of this product was classified as Category 3 based on an assessment of the ingredients ^{1) - 10)}
Serious eye damages / eye irritation	: Not classified. The serious eye damages / eye irritation of this product was classified as Not classified based on an assessment of the ingredients ^{1) - 10)}
Respiratory or skin sensitization	: No data available
Germ cell mutagenicity	: Not classified. Chemicals of Category 1 is not contained more than 0.1% and category 2 is not contained more than 1.0%.
Carcinogenicity	: No data available
Reproductive toxicity	: Not classified. Chemicals of Category 1 is not contained more than 0.3% and category 2 is not contained more than 3.0%.
Specific target organ systemic toxicity; single exposure	: Category 3 (anesthetic action). This product contains Dimethyl Phthalate.
Specific target organ systemic toxicity; repeated exposure	: Not classified. Chemicals of Category 1 is not contained more than 1.0% and category 2 is not contained more than 1.0%.
Aspiration hazard	: No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity	: No data
Persistence/degradability	: No data
Bioaccumulative potential(BCF)	: No data
Mobility in soil	: No data

13. DISPOSAL CONSIDERATIONS

- Let a licensed disposal company handle the surplus and non-recyclable solutions.
- Observe all federal, state and local regulations when disposing of the substance.

14. TRANSPORT INFORMATION

HAZARD CLASS	: Does not correspond to the classification standard of the United Nations
UN-No.	: Not Listed
INTERNATIONAL REGULATIONS	

15. JAPANESE REGULATORY INFORMATION (For the content liquid)

Fire Defense Law	: Class-4 No.3 petroleum Dangerous grade 3
ISHL(Article 57)	: Dangerous or Harmful Substances Subject to Notify their Names, etc.
ISHL(Article 57-2)	: Dangerous or Harmful Substances Subject to Notify their Names, etc.
Marine Pollution Prevention law	: Noxious liquid substance, "Category Z" (Execution Law, Separate Table 1)

16. OTHER INFORMATION

REFERENCES

1. The Material Safety Data Sheet (MSDS) of Acetyl Tributyl Citrate by Tokyo Chemical Industry Co., Ltd. (2012)
2. M. Hirata et al., *Bull. Natl. Inst. Health Sci.*, **2012**, 130, 31-42.
3. The Material Safety Data Sheet (MSDS) of Dimethyl Phthalate by Wako Pure Chemical Industries, Ltd. (2010)
4. The Material Safety Data Sheet (MSDS) of Benzyl Benzoate published by Nakalai tesque, Ink. (2002)
5. The Material Safety Data Sheet (MSDS) of Diethylene Glycol Monoethyl Ether published by Tokyo Chemical Industry Co., Ltd. (2012)
6. The Material Safety Data Sheet (MSDS) of Diethylene Glycol Monoethyl Ether published by Junsei Chemical Co., Ltd. (2001)
7. The Material Safety Data Sheet (MSDS) of Diethylene Glycol Monoethyl Ether published by Sigma Aldrich. (2012)
8. The Material Safety Data Sheet (MSDS) of Bis-(3, 4, 6-trichloro-2-(pentyloxycarbonyl)phenyl)oxalate by Tokyo Chemical Industry Co., Ltd. (2012)
9. The Material Safety Data Sheet (MSDS) of Hydrogen Peroxide published by Wako Pure Chemical Industries, Ltd. (2011)
10. EU-RAR(2003)

This SDS was prepared based on the information we can get at the time of preparation, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. Products are supposed to be used promptly after purchase in consideration of safety. New information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation.