

Safety Data Sheet

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

Identification of the substance or mixture

Product code Product name <u>Company/undertaking identification</u>

EG24508 LightNing[®] DrallI

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For Research Use Only. Not for use in diagnostic procedures.

SECTION 2: Hazards identification

| GHS Classification | |
|---|---|
| Signal Word | None |
| Health hazards | Not classified |
| Physical hazards | Not classified |
| Hazard Statements | Not Applicable |
| Precautionary Statements | Not Applicable |
| <u>Principle Routes of Exposure</u> Potential Health Effects Eyes | May cause eye irritation with susceptible persons |
| Skin | May cause skin irritation in susceptible persons |
| Inhalation | May be harmful by inhalation. |
| ingestion | May be harmful if swalloweed |
| Specific effects | |
| Carcinogenic effects | None |



| Mutagenic effects | None |
|-----------------------|----------------------------------|
| Reproductive toxicity | None |
| Sensitization | None |
| Target Organ Effects | None under normal use conditions |

Other hazards

Not Applicable

HMIS

| Health | 0 |
|--------------|---|
| Flammability | 0 |
| Reactivity | 0 |

SECTION 3: Composition/information on ingredients

| Chemical Name | OSHA PEL | OSHA PEL (Ceiling) | ACGIH OEL (TWA) | ACGIH OEL (STEL) |
|---------------|---------------------|-----------------------|--------------------|---------------------|
| Glycerol | 15 mg/m³ 5 mg/m³ | None | None | None |

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

SECTION 4: First aid measures

Description of first aid measures

| Inhalation | Remove to fresh air. If symptoms persist, call a physician. If not breathing, giveartificial respiration | |
|--------------------|--|--|
| Eye contact | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. | |
| Skin contact | Rinse cautiously with water for several minutes. If symptoms occur, obtain medicaladvice. | |
| Ingestion | Never give anything by mouth to an unconscious person. If symptoms persist, calla physician. Do not induce vomiting without medical advice | |
| Note to physicians | Treat symptomatically. | |
| | | |

Most important symptoms and effects, both acute and delayed



Not Applicable.

Indication of any immediate medical attention and special treatment needed None.

SECTION 5: Firefighting measures

| Extinguishing media |
|----------------------------------|
| Suitable extinguishing media |
| Special protective equipment for |
| firefighters |

Water spray. Carbon dioxide (CO₂). Foam. Dry chemical.

Wear self-contained breathing apparatus and protectivesuit.

Special hazards arising from the substance or mixture Not known

Advice for firefighters

Standard procedure for chemical fires.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation Always wear recommended Personal Protective Equipment Use personal protection equipment See section 8 for more information

Environmental precautions

Prevent further leakage or spillage if safe to do so

Methods and material for containment and cleaning up

Soak up with inert absorbent material.

Reference to other sections

See section 8 for more information.

SECTION 7: Handling and storage

Precautions for safe handling

Use personal protective equipment as required. No special handling advices are necessary.

Storage Conditions

Store at -25℃ to -15℃.

Specific end use(s)

For research use only.



SECTION 8: Exposure controls/personal protection

| Control parameters | |
|---------------------------------|---|
| Exposure Limits | Contains no substances with occupational exposure limit values. |
| Engineering measures | Ensure adequate ventilation, especially in confined areas |
| Exposure controls | |
| Personal Protective Equipment | |
| Respiratory protection | In case of insufficient ventilation wear respirators and components tested and approved under appropriate government standards. |
| Hand protection | Wear suitable gloves. Glove material: Compatible chemical- resistant gloves. |
| Eye protection | Tight sealing safety goggles |
| Skin and Body Protection | Wear suitable protective clothing. |
| Hygiene measures | Handle in accordance with good industrial hygiene and safety practice |
| Environmental exposure controls | No special environmental precautions required. |

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| Physical state | liquid |
|--|-------------|
| | • |
| Color | Transparent |
| Odor | No data |
| Molecular Weight | No data |
| Melting point / melting range | No data |
| Boiling point / boiling range | No data |
| Flammability (solid, gas) | No data |
| Lower explosion limit | No data |
| Upper explosion limit | No data |
| Flash point | No data |
| Autoignition Temperature | No data |
| Decomposition temperature | No data |
| рН | No data |
| Evaporation rate | No data |
| Viscosity | No data |
| Solubility | No data |
| Partition coefficient: n-octanol/water | No data |
| | |



| Vapor Pressure | No data |
|--------------------------|---------|
| Specific gravity | No data |
| Relative density | No data |
| Vapor density | No data |
| Explosive properties | No data |
| Oxidizing properties | No data |
| Particle characteristics | No data |

Other information

Information with regard to physical hazard classes No information available

Other safety characteristics No information available

SECTION 10: Stability and reactivity

| Reactivity | None known. |
|-------------------------------------|--|
| Chemical stability | Stable under normal conditions. |
| Possibility of hazardous reactions | Hazardous reaction has not been reported. |
| Conditions to avoid | No information available. |
| Incompatible materials | Strong acids and oxidizing agents. Acetic anhydride. Isocyanates. Ammonia. Bases. |
| Hazardous decomposition products | Carbon oxides. |

SECTION 11: Toxicological information

Acute Toxicity

| Chamical Nama | LD50 | LD50 | LC50 |
|--------------------------------|---------------------|------------------------|------------------|
| Chemical Name (oral,rat/mouse) | (dermal,rat/rabbit) | (inhalation,rat/mouse) | |
| Glycerol | = 12600 mg/kg Oral | No data available | >570 mg/m³ (Rat) |

Information on toxicological effects

There is no evidence available indicating acute toxicity.

| Principal Routes of Exposure | |
|------------------------------|--|
| Acute toxicity | Data are conclusive but insufficient for classification. |
| Skin corrosion/irritation | May cause skin irritation in susceptible persons. |



| Serious eye damage/irritation | May cause eye irritation with susceptible persons. |
|--|--|
| Respiratory or skin sensitization | Data are conclusive but insufficient for classification. |
| Specific target organ toxicity (STOT)–single exposure | None under normal use conditions. |
| Specific target organ toxicity (STOT)–repeated exposure | None under normal use conditions |
| Carcinogenicity | None. |
| Germ cell mutagenicity | Data are conclusive but insufficient for classification. |
| Reproductive toxicity | None. |
| Aspiration hazard | Data are conclusive but insufficient for classification. |

SECTION 12: Ecological information

Toxicity

Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

| Mobility in soil | see log Pow. |
|-------------------------------|---------------------------------|
| Persistence and degradability | No information available. |
| Bioaccumulative potential | Material does not bioaccumulate |

Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other adverse effects

No information available

SECTION 13: Disposal considerations

Waste treatment methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

SECTION 14: Transport information



IATA / ADR / DOT-US / IMDG

Not regulated in the meaning of transport regulation

| UN number or ID number UN proper shipping name Transport hazard class(es) Packing group | Not Applicable No dangerous good in sense of these transport regulations Not Applicable Not Applicable | |
|--|---|--|
| Environmental hazards | Not Applicable | |
| Special precautions for user | Not Applicable | |
| Maritime transport in bulk according to IMO instruments | | |

Not Applicable

SECTION 15: Regulatory information

US Federal Regulations

SARA 313

This product is not regulated by SARA.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain HAPs.

US State Regulations

California Proposition 65 This product does not contain any Proposition 65 chemicals.

WHMIS Hazard Class

Non-controlled

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

National Regulations – Brazil

Not regulated.

SECTION 16: Other information

References

- ECHA: http://echa.europa.eu/
- TOXNET: http://toxnet.nlm.nih.gov/
- eChemPortal: http://www.echemportal.org/
- LOLI database: https://www.chemadvisor.com/loli-database

Abbreviations and acronyms



TWA - Time-Weighted Average **OELs** - Occupational Exposure Limits STEL - Short Term Exposure Limit DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List **KECL** - Korean Existing and Evaluated Chemical Substances **ENCS** - Japan Existing and New Chemical Substances **IECSC** - China Inventory of Existing Chemical Substances PICCS - Philippines Inventory of Chemicals and Chemical Substances AICS - Australian Inventory of Chemical Substances NZIOC - New Zealand Inventory of Chemicals EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances TSCA - United States Toxic Substances Control Act Section 8(b) Inventory **CEPA** - Canadian Environmental Protection Act **EPA** - Environmental Protection Agency OSHA - Occupational Safety and Health Administration of the US Department of Labor IATA - International Air Transport Association **DOT** - Department of Transportation IMDG - International Maritime Dangerous Goods ACGIH - American Conference of Governmental Industrial Hygienists NIOSH - National Institute for Occupational Safety and Health AIHA - American Industrial Hygiene Association HMIS - Department of Defense Hazardous Materials Information System NTP - National Toxicology Program

IARC - International Agency for Research on Cancer

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the Company cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein.

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End of Safety Data Sheet