

Barristo Enterprises, Inc., dba SureHold®

SAFETY DATA SHEET

Legal Remark

Batteries and LED are Articles as defined under GHS and exempt from GHS classification criteria (Section 1.3.2.1.1 of GHS). Therefore, they are not subject to the requirements for information in the Supply Chain (Safety Data Sheets and Labels).

The Safety Data Sheet provides information about LightLock Glue's adhesive. In section 14 (Transport Information) and section 15 (Regulatory information), LightLock Glue's batteries and LED have also been considered for information only.

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Product Identifier Helios LightLock Glue, Part No. 22041

Relevant identified uses of the substance or mixture and uses advised against

Intended Use: Light-curing Adhesive

Details of the supplier of the safety data sheet

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2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

Flammable liquids	Category 4
Eye irritation	Category 2B

Label elements:

Hazard pictogram:	None
Single word:	Warning
Emergency Overview:	Combustible liquid. Causes eye irritation.
Precautionary Statement - Prevention	Keep away from heat – No smoking Wash skin thoroughly after handling Wear protective gloves//eye protection
Precautionary Statement - Response	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If eye irritation persists get medical advice/attention. IF ON SKIN: Wash with plenty of soap and water. Remove contaminated clothing and wash before reuse. IN CASE OF FIRE: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

Precautionary Statement – Storage Store in a well-ventilated place. Keep cool.

Precautionary Statement – Disposal Dispose of contents/container to an approved waste disposal plant.

Other hazards:
None if used properly.

3. COMPOSITION / INFORMATION ON INGREDIENTS

General chemical description: Cyanoacrylate Adhesive

Base substances of preparation: Cyanoacrylate

Chemical Name	CAS-No	EINECS Number Index Number REACH-Reg No.	Weight - %
2-Methoxyethyl Cyanoacrylate	27816-23-5	EC 248-670-5	>70-≤98%
Vinyl derivatives copolymer	----		1 -1 10%
Hydroquinone	123-31-9	204-617-8	0.01 - <0.1%

* The exact percentage (concentration) of composition has been withheld as a trade secret

4. FIRST AID MEASURES

Description of first aid measures

General advice	Avoid breathing gas/fumes/vapor/spray.
Inhalation:	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist, call a physician.
Skin contact:	IF ON SKIN: Do not pull bonded skin apart. It may be gently peeled apart using a blunt object such as a spoon, preferably after soaking in warm, soapy water. Cyanoacrylates give off heat on solidification. In rare cases a large drop will generate enough heat to cause a burn. Burns should be treated normally after the adhesive has been removed from the skin. If lips are accidentally stuck together, apply warm water to the lips and encourage maximum wetting and pressure from saliva inside the mouth. Peel or roll lips apart. Do not try to pull the lips apart with direct opposing action.
Eye contact:	IF IN EYES: If the eye is bonded closed, release eyelashes with warm water by covering with wet pad. Cyanoacrylate will bond to eye protein and will cause periods of weeping which will help to debond the adhesive. Keep eye covered until debonding is complete, usually within 1-3 days. Do not force eye open. Medical advice should be sought in case solid particles of cyanoacrylate trapped behind the eyelid cause any abrasive damage.
Ingestion:	Ensure that breathing passages are not obstructed. The product will polymerize immediately in the mouth making it impossible to swallow. Saliva will slowly separate the solidified product from the mouth (several hours).

Most important symptoms and effect, both acute and delayed

Eye:	Irritation, conjunctivitis
Skin:	Redness, inflammation.
Respiratory system:	Irritation, coughing, shortness of breath, chest tightness

Indication of any immediate medical attention and special treatment needed

See first aid measures.

5. FIRE FIGHTING MEASURES

Extinguishing media

Suitable extinguishing media:	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable extinguishing media:	High volume water jet.

Special hazards arising from the substance or mixture

In the event of fire, the following can be released: Carbon oxides, Nitrogen oxides (NOx).

Advice for firefighters

Wear self-contained breathing apparatus for fire-fighting, if necessary.

Further information

Use water spray to cool unopened containers.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Remove all sources of ignition.

For personal protection, see Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Methods and material for containment and cleaning up

Do not use cloth for clean-up. Flood with water to complete polymerization and scrape up the polymer. Cured material can be disposed as non-hazardous waste.

Reference to other sections

For personal protective equipment see Section 8 and for disposal instructions see Section 13.

7. HANDLING AND STORAGE**Precautions for safe handling**

Advice on safe handling

Ventilation (low level) is recommended when using large volumes. Use of dispensing equipment is recommended to minimize the risk of skin or eye contact.

Advice on general occupational hygiene:

Wash hands before work breaks and after finishing work. Do not eat, drink or smoke while working. Good industrial hygiene practices should be observed.

Conditions for safe storage, including and incompatibilities

For optimum shelf life, store in containers under refrigerated conditions at 2-8°C (35.6 – 46.4°F)

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Control parameters**

Chemical Name	ACGIH TLV	OSHA PEL	OTHER
2-Methoxyethyl Cyanoacrylate 27816-23-5	----	----	0.2 ppm TWA
Hydroquinone 123-31-9	1 mg/m ³ TWA	2 mg/m ³ TWA	

Exposure controls

Appropriate Engineering Controls:

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of the work day.

Eye/Face protection

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN166 (EU).

Skin/Body protection

Use impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection

Ensure adequate ventilation.

Environmental exposure controls

Prevent further leakage or spillage if safe to do so. Do not let product enter

drains.

9. PHYSICAL AND CHEMICAL PROPERTIES**Information on basic physical and chemical properties**

Physical state:	Liquid
Odor:	Odorless
pH:	No data available.
Melting point/freezing point:	No data available/Not applicable.
Initial boiling point and boiling range:	No data available/Not applicable.
Flash point	80-93.3°C
Evaporation rate (Butyl acetate = 1):	No data available/Not applicable.
Flammability:	No data available/Not applicable.
Vapor Pressure (25°C):	No data available/Not applicable.
Vapor Density (Air=1):	No data available/Not applicable.
Relative Density:	1.19g/cm ³
Solubility:	Polymerizes in the presence of water.
Partition coefficient:	No data available/Not applicable.
Auto-ignition temperature:	No data available/Not applicable.
Decomposition temperature:	No data available/Not applicable.
Viscosity	No data available/Not applicable.
Explosive properties:	No data available/Not applicable.
Oxidizing properties:	No data available/Not applicable.

Other information

Specific gravity:	No data available/Not applicable.
VOC content:	No data available/Not applicable.

10. STABILITY AND REACTIVITY**Reactivity**

No data available/Not applicable.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

No data available/Not applicable.

Conditions to avoid

Heat, flames and sparks.

Incompatible materials

Reducing agents, water, amines, alcohols, alkali metals, oxidizing agents.

Hazardous decomposition products

No data available/Not applicable

11. TOXICOLOGICAL INFORMATION**Information on likely routes of exposure**

Inhalation	Irritating to the respiratory system.
Eye contact	No data available/Not applicable.
Skin contact	No data available/Not applicable.
Acute toxicity:	Acute oral toxicity: No data available/Not applicable. Acute dermal toxicity: No data available/Not applicable.

Chemical Name CAS-No	Oral LD50	Dermal LD50	Inhalation LC50
Hydroquinone 123-31-9	NOAEL \geq 250mg/kg (Rat) 14 days, 5 days/week, 12 doses	Sensitizing (Guinea pig)	----

Information on toxicological effects**Symptoms** No information available**Delayed and immediate effects as well as chronic effects from short and long-term exposure****Sensitization** No information available**Germ cell mutagenicity** No information available**Carcinogenicity** According to NTP, OSHA, ACGIH and IARC, the substance is not carcinogen.**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Biological and chemical oxygen demands (BOD and COD) are insignificant. Do not empty into drains/ surface water/ ground water. Do not allow uncontrolled leakage of product into the environment.

Persistence and degradability: No information available.

Bioaccumulative potential: No information available.

Mobility in soil: No information available.

Results of PBT and vPvB Assessment: PBT: Not applicable as chemical safety assessment not required/conducted.
vPvB: Not applicable as chemical safety assessment not required/conducted.

Other adverse effects: No further relevant information available.

13. DISPOSAL CONSIDERATIONS**Waste treatment methods**

Disposal of wastes This combustible material may be burned in a chemical incinerator equipped with an afterburner and scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a professional waste disposal service to dispose of this material.

Contaminated packaging Do not reuse container. Dispose of as unused product.

14. TRANSPORT INFORMATION

All batteries in all forms of transportation (ground, air or sea) must be packed in a safe and responsible manner. Regulatory concerns from all agencies for safe packaging require batteries to be packed in a way that prevents short circuits and to be contained in strong outer packaging to prevent spillage of contents. All original packaging for LightLock Glue are compliant with these regulatory concerns.

Lithium metal batteries contained in LightLock Glue are exempt from the classification as dangerous goods as they meet the requirements of the special provisions listed below. Essentially, this means the batteries are properly packaged and labeled, they contain less than 1 g of lithium and pass the tests defined in UN's Manual Tests and Criteria, part III, sub-section 38-3.

Regulatory Body	Special Provisions
UN	UN3091
IATA, ICAO	Packing instruction P970, Section II, A48, A99, A154, A164,, A181, A185
IMGD	188, 230, 957
ARD	188, 230, 376, 377, 636
RID	188, 230, 360, 376, 377, 636
ADN	188, 230, 360, 376, 377, 636

Although lithium metal batteries contained in LightLock Glue are classified as non-dangerous goods, there is a limitation of 5 kg net quantity of batteries per outer package when shipped by air. This means that a maximum of 1,562 units of LightLock Glue can be shipped per package by air. For additional information, please refer to the phone number in Section 1 of this document.

<u>DOT</u>	Proper shipping name	Combustible liquid, N.O.S.(Cyanoacrylate Ester)
	UN/ID No.:	NA1993
	Hazardous Class:	Combustible liquid
	Packaging Group:	III
	Exceptions:	(Not more than 450 Liters), Unrestricted.
<u>IATA</u>	Proper shipping name	Aviation Regulated Liquid, N.O.S. (Cyanoacrylate Ester)
	UN/ID No.:	UN 3334
	Hazardous Class:	9
	Packaging Group:	None
<u>IMGD</u>	Proper shipping name	Not regulated
	UN/ID No.:	None.
	Hazardous Class:	None.
	Packaging Group:	None.

15. REGULATORY INFORMATION

<u>TSCA 8 (b) Inventory Status</u>	All Components are listed or are exempt from listing on the Toxic Substances Control Act Inventory
<u>TSCA 12 (b) Export Notification</u>	None above the reporting De Minimis.
<u>SARA 302 Components</u>	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
<u>SARA 313 Components</u>	Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.
<u>SARA 313/312 Hazard Categories</u>	Immediate Health, Delayed Health, Fire, Reactive

California Proposition 65

This product does not contain any chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

NFPA	Health hazards	Flammability	Instability	---
HMIS	Health hazards	Flammability	Physical hazards	Personal protection

NFPA (National Fire Protection Association)
HMIS (Hazardous Material Information System)

Further information This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties. Substances have been classified in accordance with Regulation (EC) 1272/2008 (CLP).