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**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

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**1.1 PRODUCT IDENTIFIERS**

Product Name : ACS Material LumioTech™ mCPCN  
Chemical Name : 19-(3-(9H-Carbazol-9-yl)phenyl)-9H-carbazole-3-carbonitrile  
CAS-No. : 1392506-99-8  
EC no. : n/a  
INDEX no. : n/a  
Reach registration no. : not applicable

**1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE AND USES ADVISED AGAINST**

Identified uses : **Error! No bookmark name given.**

**1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET**

Company : **Error! No bookmark name given.**

Address : **Error! No bookmark name given.**

959 E Walnut St. Suite 100  
Pasadena, CA 91106, USA

Telephone : +1 866-227-0656  
E-mail : contact@acsmaterial.com  
Office Hours : 8:30 — 17:00 (PST)

**1.4 EMERGENCY TELEPHONE NUMBER**

Europe : 112 or 999  
Asia : 110 (China, Japan, Taiwan), 119  
North America : 911  
South America : 911  
Africa : As appropriate for your country  
Australia : 000 (Australia), 111 (New Zealand)

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**SECTION 2: HAZARDS IDENTIFICATION**

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**2.1 CLASSIFICATION OF THE SUBSTANCE/MIXTURE**

Regulation (EC) No. 1272/2008 (CLP)      Skin Irrit.2: Causes skin irritation  
Eye Dam.1: Causes serious eye damage  
STOT SE May cause respiratory irritation

## 2.2 LABEL ELEMENTS

According to Regulation (EC) No. 1272/2008 (CLP)

Product name mCPCN

Hazard Pictograms



Signal word

GHS05 GHS07

Danger

Hazard statements

H315: Causes skin irritation

H318: Causes serious eye damage

H335: May cause respiratory irritation

Precautionary statements

P280: Wear protective gloves/protective clothing/eye protection.

P302 + P352: IF ON SKIN: Wash with plenty of water.

P305 + P310 + P351 + P338: IF IN EYES: Immediately call a POISON CENTER or doctor. Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

P312: Call a POISON CENTER or doctor if you feel unwell.

## 2.3 OTHER HAZARDS

This substance/mixture does not include any components that are deemed to be persistent, bioaccumulative, and toxic (PBT) or very persistent and very bioaccumulative (vPvB) at concentrations of 0.1% or more. This safety data sheet contains additional precautionary statements in other sections.

## 2.4 ADDITIONAL INFORMATION

Not applicable.

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

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### 3.1 SUBSTANCES

Chemical name : 9-(3-(9H-Carbazol-9-yl)phenyl)-9H-carbazole-3-carbonitrile

Synonyms : mCPCN

Chemical formula : C<sub>31</sub>H<sub>19</sub>N<sub>3</sub>

Molecular weight : 433.5g/mol

### 3.2 MIXTURES

not applicable

## SECTION 4: FIRST AID MEASURES

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### 4.1 DESCRIPTION OF FIRST AID MEASURES

General Advice

Seek medical advice and display this safety data sheet to the attending doctor. Leave the hazardous area immediately. First aid personnel should make sure that they have taken the necessary precautions to prevent exposure (refer to Section 8 for suggested personal protective equipment).

#### Inhalation

Take the individual to an area with clean air and ensure they are comfortable for breathing. Seek medical attention if any discomfort or illness is experienced.

#### Skin contact

Remove contaminated clothing and shoes. Cleanse affected areas with water and soap.

Take the affected person to the hospital right away and seek medical advice.

Rinse the skin with water, and if any irritation is noticed, seek medical advice or attention.

#### Eye contact

Carefully rinse with water for several minutes. If contact lenses are being worn, remove them if it's easy to do so, and continue flushing. Rinse the affected area with abundant water for at least 15 minutes and seek medical advice.

#### Ingestion

Wash mouth with water. If you experience any discomfort or illness, seek medical attention. Do not induce vomiting and refrain from giving anything by mouth to an unconscious person.

#### 4.1 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

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#### 4.2 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

Treat symptomatically.

### SECTION 5: FIREFIGHTING MEASURES

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#### 5.1 EXTINGUISHING MEDIA

Suitable extinguishing

As appropriate for surrounding fire.

Unsuitable extinguishing

As appropriate for surrounding fire.

#### 5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

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#### 5.3 ADVICE FOR FIREFIGHTERS

Error! No bookmark name given.

#### 5.4 FURTHER INFORMATION

n/a

### SECTION 6: ACCIDENTAL RELEASE MEASURES

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**6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES**

Abide by the safe handling guidance and use the suggested personal protective equipment (section 8). Ensure there is sufficient ventilation, wear respiratory protection, and avoid producing dust. Stay clear of inhaling gas, mist, or vapors. Make sure that there is adequate ventilation and evacuate individuals to a secure location. Do not undertake any action without proper protective gear. Section 8 provides guidelines for personal protection.

**6.2 Environmental precautions**

Avoid release to the environment.

**6.3 Methods and materials for containment and cleaning up**

Clean up the spilled material by sweeping, but try to avoid generating dust. Where feasible, use vacuum equipment to collect the spilt substance. Dispose of the contents based on the local, state, or national laws.

**6.5 Reference to other sections**

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**SECTION 7: HANDLING AND STORAGE**

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**7.1 PRECAUTIONS FOR SAFE HANDLING****Advice on safe handling**

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**Hygiene measures**

Keep away from food and drink. Wash hands after handling, before breaks, and at the end of workday.

**Fire protection**

Normal measures for preventive fire protection.

**7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES****General**

Store in a well-ventilated place. Keep container tightly closed and dry.

**Storage temperature**

Ambient

**Storage life**

Product may be moisture sensitive. Handle and store under inert gas.

**Incompatible materials**

Not known

**Storage class**

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**7.3 SPECIFIC END USE(S)**

Error! No bookmark name given.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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### 8.1 CONTROL PARAMETERS

#### 8.1.1 OCCUPATIONAL EXPOSURE LIMITS

No occupational exposure limit assigned.

### 8.2 EXPOSURE CONTROLS

#### 8.2.1 APPROPRIATE ENGINEERING CONTROLS

Make certain that there is sufficient ventilation and/or exhaust. Ensure that there is a washing facility with water available for the purpose of cleansing the eyes and skin.

#### 8.2.2 PERSONAL PROTECTION EQUIPMENT

##### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

##### Hand protection

Use gloves. Before using gloves, inspect them carefully. Use an appropriate technique to remove the gloves, ensuring that the outer surface of the gloves is not touched to avoid coming into contact with the substance. After use, dispose of contaminated gloves according to the appropriate regulations and good laboratory practices. Wash and dry hands after removing gloves. The gloves selected must meet the specifications of Regulation (EU) 2016/425 and the standard EN 374.

##### Body Protection

Select appropriate body protection depending on the type, concentration, and quantity of hazardous substances present and the particular workplace conditions.

##### Respiratory protection

Under normal circumstances, there is no need for personal respiratory protection.

##### Thermal hazards

Not known.

#### 8.2.3 ENVIRONMENTAL EXPOSURE CONTROLS

##### Control of environmental exposure

Avoid release to the environment.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

Physical state	solid
Color	white to pale yellow
Odor	n/a
Odor Threshold	n/a

pH	n/a
Melting point/freezing point	222°C
Initial boiling point and boiling range	n/a
Flammability	n/a
Evaporation rate	n/a
Flammability (solid, gas)	n/a
Lower and upper explosion limit	n/a
Flash point	n/a
Auto-ignition temperature(°C)	n/a
Decomposition temperature	n/a
Kinematic viscosity	n/a
Solubility (IES)	water: not known other: chloroform, tetrahydrofuran, toluene
Partition coefficient: n-octanol/water(Log value)	n/a
Vapor pressure	n/a
Density	n/a
Relative density	n/a
Relative vapor density	n/a
Particle characteristics	n/a

**9.2 OTHER INFORMATION**  
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**SECTION 10: STABILITY AND REACTIVITY**

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- 10.1 REACTIVITY**  
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- 10.2 CHEMICAL STABILITY**  
Error! No bookmark name given.
- 10.3 POSSIBILITY OF HAZARDOUS REACTIONS**  
n/a.
- 10.4 CONDITIONS TO AVOID**  
n/a.
- 10.5 INCOMPATIBLE MATERIALS**  
n/a.
- 10.6 HAZARDOUS DECOMPOSITION PRODUCTS**  
Error! No bookmark name given.

**SECTION 11: TOXICOLOGICAL INFORMATION**

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**11.1 INFORMATION ON TOXICOLOGICAL EFFECTS**

Acute toxicity - ingestion	n/a
Acute toxicity – skin contact	n/a
Acute toxicity - inhalation	n/a
Skin corrosion/irritation	n/a
Serious eye damage/irritation	n/a
Skin sensitization data	n/a
Respiratory sensitization data	n/a
Germ cell mutagenicity	n/a
Carcinogenicity	n/a
Reproductive toxicity	n/a
Lactation	n/a
Stot – single exposure	n/a
Stot – repeated exposure	n/a
Aspiration hazard	n/a

**11.2 INFORMATION ON OTHER HAZARDS**

According to current knowledge there has not been a comprehensive investigation of the chemical, physical and toxicological characteristics.

**11.2.1. ENDOCRINE DISRUPTING PROPERTIES**

n/a

**11.2.2. INFORMATION ON OTHER HAZARDS**

n/a

**SECTION 12: ECOLOGICAL INFORMATION****12.1 TOXICITY**

Toxicity – aquatic invertebrates	n/a
Toxicity - fish	n/a
Toxicity - algae	n/a
Toxicity – sediment compartment	not classified
Toxicity - terrestrial compartment	not classified

**12.2 PERSISTENCE AND DEGRADATION**

n/a.

**12.3 BIOACCUMULATIVE POTENTIAL**

Error! No bookmark name given.

**12.4 MOBILITY IN SOIL**

n/a.

**12.5 RESULTS OF PBT AND VPVB ASSESMENT**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**12.6 ENDOCRINE DISRUPTING PROPERTIES**

n/a

**12.7 OTHER ADVERSE EFFECTS**

n/a.

**SECTION 13: DISPOSAL CONSIDERATIONS**

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**13.1 WASTE TREATMENT METHODS**

Dispose of the product in accordance with the regulations of the local, state or national authorities. Recycling should be carried out only for fully emptied packaging. The recommended method for disposal is through incineration managed by a licensed disposal contractor. Alternatively, send the product to a licensed recycler, reclaimer or incinerator.

**13.2 ADDITIONAL INFORMATION**

Disposal should be in accordance with local, state or national legislation.

**SECTION 14: TRANSPORT INFORMATION**

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**14.1. UN NUMBER**

ADR/RID	-	IMDG	-	IATA	-
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**14.2. UN PROPER SHIPPING NAME**

ADR/RID	Not dangerous
IMDG	Not dangerous
IATA	Not dangerous

**14.3. TRANSPORT HAZARD CLASS(ES)**

ADR/RID	-	IMDG	-	IATA	-
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**14.4. PACKAGING GROUP**

ADR/RID	-	IMDG	-	IATA	-
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**14.5. ENVIRONMENTAL HAZARDS**

ADR/RID	no	IMDG	no	IATA	no
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**14.6. SPECIAL PRECAUTIONS FOR USER****Further Information**

This substance does not meet the criteria for classification as hazardous according to transportation regulations.

**SECTION 15: REGULATORY INFORMATION**

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**15.1. SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS/LEGISLATION SPECIFIC FOR THE SUBSTANCE OR MIXTURE**

European regulations - authorizations and/or restrictions on use

Candidate list of substances of very high concern for authorization	not listed
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Reach: annex list of substances subject to authorization	not listed
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Reach: annex xvii restrictions on the manufacture, placing on the market and use	not listed
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Of certain dangerous substances, mixtures and articles



Community rolling action plan (CORAP)	not listed
Regulation (EC) N°850/2004 of the European parliament and of the council on persistent organic pollutants	not listed
regulation (EC) N° 1005/2009 on substances that deplete the ozone layer	not listed
Regulation (Eu) N° 649/2012 of the European parliament and of the council Concerning the export and import of hazardous chemicals	not listed

### National regulations

Other not known

## 15.2. CHEMICAL SAFETY ASSESSMENT

For this product a chemical safety assessment was not carried out.

## SECTION 16: OTHER INFORMATION

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### THE FOLLOWING SECTIONS CONTAIN REVISIONS OR NEW STATEMENTS:

n/a

## LEGEND

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### ACRONYMS

ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CAS	Chemical Abstracts Service
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
DNEL	Derived No Effect Level
EC	European community
EINECS	European Inventory of Existing Commercial Chemical Substances
IATA	International Air Transport Association
IBC	Intermediate Bulk Container
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods
LTEL	Long term exposure limit
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
REACH	Registration, Evaluation, Authorization and Restriction of Chemicals
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
STEL	Short term exposure limit
STOT	Specific Target Organ Toxicity

UN United Nations  
vPvB very Persistent and very Bioaccumulative

**DISCLAIMER:** This MSDS has been prepared to the best of Noctiluca S.A. ability using currently available information. However, Noctiluca S.A. cannot guarantee the accuracy of the data and hazard assessments provided. Before using the product, it is important to thoroughly research and understand the relevant laws, regulations, and potential hazards. It is recommended to use the product as soon as possible after purchase with safety in mind. Any updates or changes will be added as necessary. The listed precautions are for normal handling, but if special handling is required, additional safety measures should be taken. Chemical products should be considered potentially hazardous and toxic, with the degree of risk dependent on various factors. Only those with specialized knowledge and experience or under the guidance of such individuals should handle the product from opening to storage and disposal. Each user is responsible for establishing safe usage conditions and obtaining any necessary intellectual property permission related to the use of product, compliance with all applicable regulatory requirements and generally accepted industry standards, and conducting all necessary testing and verification, including for fitness for the intended purpose. Noctiluca S.A. makes no representation or warranty of any kind, express or implied, including merchantability or fitness for a particular use regarding the product, its application or any information provided in connection therewith. The foregoing information and suggestions are also provided without warranty of non-infringement as to intellectual property rights of third parties and shall not be construed as any inducement to infringe the rights of third parties. Noctiluca S.A. shall not be liable for incidental, consequential, indirect, exemplary or special damages of any kind including, without limitation, liability for any damage resulting from handling or from contact with the above product, in particularly all risk and liability for loss, damage or injury to persons or to property or others arising out of the transport, storage or use of product, including infringement of any third-party intellectual property rights resulting from use of product. In addition, Noctiluca S.A. shall not be liable for incidental, consequential, indirect, exemplary or special damages of any kind, including, without limitation, liability for loss of use, loss of work in progress, loss of revenue or profits, cost of substitute equipment, facilities or services, downtime costs, damage to reputation, product recall or business interruption or any liability of purchaser to a third party.