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**SECTION 1: IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY**

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**1.1 Product identifiers**

Product Name : ACS Material LumioTech™ BTB  
Chemical Name : 4,4-Bis(4,6-diphenyl-1,3,5-triazin-2-yl)biphenyl  
CAS-No. : 266349-83-1  
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 : These chemicals are intended solely for use in laboratory experiments or research and development. They are not suitable for either drug or household use.

**1.3 Details of the supplier of the safety data sheet**

Company : ACS Material LLC  
Address : ACS Material LLC  
959 E Walnut, Suite 100  
Pasadena, CA 91106, USA  
Telephone : +1 (866)-227-0656  
E-mail : [contacts@acsmaterial.com](mailto:contacts@acsmaterial.com)  
Office Hours : 9:00 — 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 or mixture**

Regulation (EO) No. 1272/2008 (OLP) Not a hazardous substance or mixture according to Regulation (EO) No 1272/2008.

**2.2 Label elements**

According to Regulation (EO) No. 1272/2008 (OLP)

Product name BTB

Hazard Pictograms The product does not need to be labelled in accordance with EO directives or respective national laws.

Signal word -

Hazard statement(s) -

Precautionary statements -

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

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 : 4,4-Bis(4,6-diphenyl-1,3,5-triazin-2-yl)biphenyl  
Synonyms : 4,4-Bis-[2-(4,6-diphenyl-1,3,5-triazinyl)]-1,10-biphenyl  
Chemical formula : C<sub>42</sub>H<sub>28</sub>N<sub>6</sub>  
Molecular weight : 520.62 g/mol

### 3.2 Mixture

not applicable

## SECTION 4: FIRST AID MEASURES

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### 4.1 Description of first aid measures

#### General advice

First aiders should ensure they have taken adequate steps to protect themselves from exposure (see Section 8 for recommended personal protection equipment) Show this safety data sheet to the doctor in attendance.

#### If inhaled

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.

#### In case of 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.

**In case of 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.

**If swallowed**

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.

**4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and impacts are outlined in the labelling (see section 2.2) and/or in section 11.

**4.3 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 media**

Use dry chemical, foam, water spray, carbon dioxide.

**Unsuitable extinguishing media**

No data

**5.2 Special hazards arising from the substance or mixture**

In combustion toxic fumes may form.

Carbon oxides.

Nitrogen oxides (NO<sub>x</sub>)

**5.3 Advice for firefighters**

Firefighters should wear complete protective clothing including self-contained breathing apparatus.

**5.4 Further information**

Use a water spray to control (reduce) gases/vapors/mists and avoid contamination of surface water or the groundwater system by the water used to extinguish the fire.

**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.

**6.4 Reference to other sections**

For disposal see section 13.

**SECTION 7: HANDLING AND STORAGE**

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**7.1 Precautions for safe handling****Advice on safe handling**

Avoid breathing, swallowing, and making contact with the skin and eyes. Only use the substance in a places with good ventilation. Put on protective clothing as advised in section 8.

**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**

Stable under normal conditions.

**Incompatible materials**

Not known

**7.3 Specific end use(s)**

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

**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.

### 8.3 Personal protective 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).

#### Skin 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.

#### Control of environmental exposure

Avoid release to the environment.

#### Thermal hazards

Not known

## 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	362°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: n/a other: n/a
Partition Coefficient: n-octanol/water	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 safety information

n/a

## SECTION 10: STABILITY AND REACTIVITY

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### 10.1 Reactivity

None anticipated.

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions.

### 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

In case of fire: see SECTION 5.

## 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 eye	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

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### 12.1 Toxicity

Toxicity – aquatic invertebrates	n/a
Toxicity - fish	n/a
Toxicity - algae	n/a
Toxicity – sediment compartment	n/a
Toxicity - terrestrial compartment	n/a

### 12.2 Persistence and degradability

n/a.

### 12.3 Bioaccumulative potential

n/a.

### 12.4 Mobility in soil

n/a.

### 12.5 Results of PBT and vPvB assessment

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

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

### 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

### 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

### 14.4. Packaging group

ADR/RID - IMDG - IATA

### 14.5. Environmental hazards

ADR/RID no IMDG no IATA

### 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
Reach: annex list of substances subject to authorization	not listed
Reach: annex xvii restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	not listed
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****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

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