

## SAFETY DATA SHEET

Preparation Date: 06/04/2015

Revision Date: 06/04/2015

Revision Number: G1

### 1. IDENTIFICATION

**Product identifier**

**Product code:** B1088  
**Product Name:** BENZOPHENONE, REAGENT

**Other means of identification**

**Synonyms:** Benzene, benzoyl-  
 Benzoylbenzene  
 Diphenyl ketone  
 Diphenylketone  
 Diphenylmethanone  
 Ketone, diphenyl  
 Methanone, diphenyl-  
 Phenyl ketone  
 alpha-Oxidiphenylmethane  
 alpha-Oxoditane

**CAS #:** 119-61-9  
**RTECS #** DI9950000  
**CI#:** Not available

**Recommended use of the chemical and restrictions on use**

**Recommended use:** Photostablizer.  
**Uses advised against** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
 14422 South San Pedro St.  
 Gardena, CA 90248  
 (310) 516-8000

**Order Online At:** <https://www.spectrumchemical.com>

**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

### 2. HAZARDS IDENTIFICATION

**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Serious eye damage/eye irritation	Category 2B
Carcinogenicity	Category 2

**Label elements**

## Warning

### Hazard statements

Suspected of causing cancer



### Hazards not otherwise classified (HNOC)

Not Applicable

### Other hazards

May be harmful in contact with skin

Causes mild skin irritation

Mild eye irritation

### Precautionary Statements - Prevention

Obtain special instructions before use

Do not handle until all safety precautions have been read and understood

Use personal protective equipment as required

Wash face, hands and any exposed skin thoroughly after handling

### Precautionary Statements - Response

*IF exposed or concerned: 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.

### Precautionary Statements - Storage

Store locked up

### Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS-No.	Weight %	Trade Secret
Benzophenone 119-61-9	119-61-9	100	*

## 4. FIRST AID MEASURES

### First aid measures

#### General Advice:

Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126).

#### Skin Contact:

Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention if irritation develops. Consult a physician if necessary.

#### Eye Contact:

Flush eye with water for 15 minutes. Get medical attention if irritation occurs. If symptoms persist, call a physician.

**Inhalation:** Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.

**Ingestion:** Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Obtain medical attention.

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

**Symptoms** Mild skin irritation. Mild eye irritation. Harmful in contact with skin. Suspected of causing cancer.

**Indication of any immediate medical attention and special treatment needed**

**Notes to Physician:** Treat symptomatically

**Protection of first-aiders**

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

**5. FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media:** Carbon dioxide (CO<sub>2</sub>). Dry chemical. Water spray mist or foam.

**Unsuitable Extinguishing Media:** No information available.

**Specific hazards arising from the chemical**

**Hazardous Combustion Products:** Carbon oxides

**Specific hazards:** May be combustible at high temperatures

**Special Protective Actions for Firefighters**

**Specific Methods:** No information available.

**Special Protective Equipment for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear

**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

**Personal Precautions:** Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Use personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid breathing dust. Avoid dust formation. Remove all sources of ignition. All equipment used when handling the product must be grounded.

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

**Methods and material for containment and cleaning up**

**Methods for containment** Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**Methods for cleaning up** Sweep up and shovel into suitable containers for disposal. Clean contaminated surface thoroughly.

## 7. HANDLING AND STORAGE

### Precautions for safe handling

#### **Technical Measures/Precautions:**

Provide sufficient air exchange and/or exhaust in work rooms. All equipment used when handling the product must be grounded. Avoid dust formation. Keep away from incompatible materials. Remove all sources of ignition.

#### **Safe Handling Advice**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe vapours/dust. Do not ingest. Do not smoke. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

### Conditions for safe storage, including any incompatibilities

#### **Technical Measures/Storage Conditions:**

Keep container tightly closed in a dry and well-ventilated place. Keep away from heat and sources of ignition. Store at room temperature in the original container. Store away from incompatible materials.

#### **Incompatible Materials:**

Strong oxidizing agents.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control parameters

#### **National occupational exposure limits**

##### **United States**

Components	OSHA	NIOSH	ACGIH	AIHA WHEEL
Benzophenone 119-61-9	None	None	None	= 0.5 mg/m <sup>3</sup> TWA

##### **Canada**

Components	Alberta	British Columbia	Ontario	Quebec
Benzophenone 119-61-9	None	None	None	None

##### **Australia and Mexico**

Components	Australia	Mexico
Benzophenone 119-61-9	None	None

### Appropriate engineering controls

#### **Engineering measures to reduce exposure:**

Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

### Individual protection measures, such as personal protective equipment

#### **Personal Protective Equipment**

**Eye protection:** Safety glasses with side-shields

**Skin and body protection:** Long sleeved clothing. apron. Gloves.

**Respiratory protection:** Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent..

**Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b> Solid.	<b>Appearance:</b> Crystalline solid.	<b>Color:</b> Colorless.
<b>Odor:</b> Sweet. Rose-like.	<b>Taste</b> No information available	<b>Molecular/Formula weight:</b> 182.22
<b>Formula:</b> (C <sub>6</sub> H <sub>5</sub> ) <sub>2</sub> CO	<b>Flammability:</b> No information available	<b>Flash point (°C):</b> No data available
<b>Flashpoint (°C/°F):</b> No information available.	<b>Flash Point Tested according to:</b> Not available	<b>Autoignition Temperature (°C/°F):</b> No information available
<b>Lower Explosion Limit (%):</b> No information available	<b>Upper Explosion Limit (%):</b> No information available	<b>pH:</b> No information available
<b>Melting point/range(°C/°F):</b> 49°C/ 120.0°F	<b>Boiling point/range(°C/°F):</b> 305.4°C/ 581.7°F	<b>Bulk density:</b> No information available
<b>Decomposition temperature(°C/°F):</b> No information available	<b>Density (g/cm<sup>3</sup>):</b> No information available	<b>Specific gravity:</b> 1.1108
<b>Vapor pressure @ 20°C (kPa):</b> No information available	<b>Evaporation rate:</b> No information available	<b>Vapor density:</b> No information available
<b>VOC content (g/L):</b> No information available	<b>Odor threshold (ppm):</b> No information available	<b>Partition coefficient (n-octanol/water):</b> 3.18
<b>Viscosity:</b> No information available	<b>Miscibility:</b> No information available	<b>Solubility:</b> Easily soluble in acetone Soluble in Methanol Soluble in diethyl ether Insoluble in cold water

## 10. STABILITY AND REACTIVITY

### Reactivity

Reactive with strong oxidizing agents

### Chemical stability

#### **Stability:**

Stable under recommended storage conditions.

#### **Possibility of Hazardous Reactions:**

Hazardous polymerization does not occur

#### **Conditions to avoid:**

Heat. Ignition sources. Incompatible materials.

#### **Incompatible Materials:**

Strong oxidizing agents.

#### **Hazardous decomposition products:**

Carbon oxides.

### Other Information

#### **Corrosivity:**

No information available

**Product code:** B1088

**Product name:** BENZOPHENONE,  
REAGENT

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**Special Remarks on Corrosivity:** No information available

## 11. TOXICOLOGICAL INFORMATION

### Information on likely routes of exposure

**Principal Routes of Exposure:**

Eyes. Ingestion. Inhalation.

### Acute Toxicity

### Component Information

*Benzophenone - 119-61-9*

**LD50/oral/rat** = > 10 g/kg Oral LD50 Rat

**LD50/oral/mouse** = 2895 mg/kg

**LD50/dermal/rat** = No information available

**LD50/dermal/rabbit** = 3535 mg/kg Dermal LD50Rabbit

**LC50/inhalation/rat** = No information available

**LC50/inhalation/mouse** = No information available

**Other LD50 or LC50 information** = No information available

### Product Information

**LD50/oral/rat** =

**VALUE- Acute Tox Oral** = > 10000mg/kg

**LD50/oral/mouse** =

**Value - Acute Tox Oral** = 2895mg/kg

**LD50/dermal/rabbit**

**VALUE-Acute Tox Dermal** = 3535mg/kg

**LD50/dermal/rat**

**VALUE -Acute Tox Dermal** = No information available

**LC50/inhalation/rat**

**VALUE-Vapor** = No information available

**VALUE-Gas** = No information available

**VALUE-Dust/Mist** = No information available

**LC50/Inhalation/mouse**

**VALUE-Vapor** = No information available

**VALUE - Gas** = No information available

**VALUE - Dust/Mist** = No information available

### Symptoms

**Skin Contact:** May be harmful in contact with skin. It may cause mild skin irritation.

**Eye Contact:** May cause slight or mild eye irritation.

**Inhalation** May cause respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Aspiration hazard** No information available

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Chronic Toxicity** Prolonged or repeated ingestion may affect the liver (hepatitis).

**Sensitization:** No information available

**Mutagenic Effects:** No information available

**Carcinogenic effects:** Suspected of causing cancer.

Components	IARC	ACGIH - Carcinogens	NTP	OSHA HCS - Carcinogens	Australia - Prohibited Carcinogenic Substances	Australia - Notifiable Carcinogenic Substances
Benzophenone	Monograph 101 [2012]	Not listed	Not listed	Not listed	Not listed	Not listed

**Reproductive toxicity** No data is available

**Reproductive Effects:** No information available  
**Developmental Effects:** No information available  
**Teratogenic Effects:** No information available

**Specific Target Organ Toxicity**

**STOT - single exposure** liver.  
**STOT - repeated exposure** No information available  
**Target Organs:** Liver.

**12. ECOLOGICAL INFORMATION**

**Ecotoxicity**

**Ecotoxicity effects:** Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

*Benzophenone - 119-61-9*

**Freshwater Fish Species Data:** 13.2-15.3 mg/L LC50 Pimephales promelas 96 h flow-through 1

**Water Flea Data:** 0.28 mg/l LC50 Daphnia Magna

**Persistence and degradability:** No information available

**Bioaccumulative potential:** No information available

**Mobility:** No information available

**13. DISPOSAL CONSIDERATIONS**

**Disposal Methods**

### 13. DISPOSAL CONSIDERATIONS

#### Waste from residues / unused products:

Waste must be disposed of in accordance with Federal, State and Local regulation.

#### Contaminated packaging:

Empty containers should be taken for local recycling, recovery or waste disposal

Components	RCRA - F Series Wastes	RCRA - K Series Wastes	RCRA - P Series Wastes	RCRA - U Series Wastes
Benzophenone	None	None	None	None

### 14. TRANSPORT INFORMATION

#### DOT

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** None  
**ERG No:** No information available  
**Marine Pollutant:** No data available  
**DOT RQ (lbs):** No information available

#### TDG (Canada)

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Description:** No information available

#### ADR

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Packing Group:** No information available  
**Subsidiary Risk:** No information available  
**Classification Code:** No information available  
**Description:** No information available  
**CEFIC Tremcard No:** No information available

#### IMO / IMDG

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Description:** No information available  
**IMDG Page:** No information available  
**Marine Pollutant:** No information available  
**MFAG:** No information available  
**Maximum Quantity:** No information available

#### RID

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available



## 14. TRANSPORT INFORMATION

**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Classification Code:** No information available  
**Description:** No information available

### ICAO

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Description:** No information available

### IATA

**UN-No:** Not Regulated  
**Proper Shipping Name:** No information available  
**Hazard Class:** No information available  
**Subsidiary Risk:** No information available  
**Packing Group:** No information available  
**Description:** No information available

## 15. REGULATORY INFORMATION

### International Inventories

Components	U.S. TSCA	KOREA KECL	Philippines (PICCS)	Japan ENCS	CHINA	Australia (AICS)	EINECS-No.
<i>Benzophenone</i>	Present T	Present KE-02716	Present	Present (4)-125 (4)-124 (3)-1258	Present	Present	Present 204-337-6

### U.S. Regulations

#### *Benzophenone*

Minnesota - Hazardous Substance List: Present

FDA - Direct Food Additives 21 CFR 172.515

FDA - 21 CFR - Total Food Additives 172.515 177.2600

#### California Prop. 65: Safe Drinking Water and Toxic Enforcement Act of 1986.

#### Chemicals Known to the State of California to Cause Cancer:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

#### Chemicals Known to the State of California to Cause Reproductive Toxicity:

This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Components	Carcinogen	Developmental Toxicity	Male Reproductive Toxicity	Female Reproductive Toxicity:
<i>Benzophenone</i>	Not Listed	Not Listed	Not Listed	Not Listed

### CERCLA/SARA

Components	CERCLA - Hazardous Substances and their Reportable Quantities	Section 302 Extremely Hazardous Substances and TPQs	Section 302 Extremely Hazardous Substances and RQs	Section 313 - Chemical Category	Section 313 - Reporting <i>de minimis</i>
<i>Benzophenone</i>	None	None	None	None	None

**U.S. TSCA**

Components	TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS)	TSCA 8(d) -Health and Safety Reporting
Benzophenone	Not Applicable	Not Applicable

**Canada****WHMIS hazard class:**

Non-controlled

**Benzophenone**

Uncontrolled product according to WHMIS classification criteria

**Canada Controlled Products Regulation:**

This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

**Inventory**

Components	Canada (DSL)	Canada (NDSL)
Benzophenone	Present	Not Listed

Components	CEPA Schedule I - Toxic Substances	CEPA - 2010 Greenhouse Gases Subject to Mandatory Reporting
Benzophenone	Not listed	Not listed

**EU Classification****R-phrase(s)**

R43 - May cause sensitization by skin contact.

R36/38 - Irritating to eyes and skin.

**S -phrase(s)**

none

Components	Classification	Concentration Limits:	Safety Phrases
Benzophenone		No information	

The product is classified in accordance with Annex VI to Directive 67/548/EEC

**Indication of danger:**

Xi - Irritant.



## 16. OTHER INFORMATION

**Preparation Date:** 06/04/2015  
**Revision Date:** 06/04/2015  
**Prepared by:** Sonia Owen

**Disclaimer:**

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

**End of Safety Data Sheet**