

## SAFETY DATA SHEET

Creation Date 03-May-2010

Revision Date 25-May-2017

Revision Number 3

### 1. Identification

**Product Name** Benzophenone

**Cat No. :** AC219680000; AC219680010; AC219680050; AC219680500;  
AC219682500

**Synonyms** Diphenyl ketone; Diphenylmethanone

**Recommended Use** Laboratory chemicals.

**Uses advised against** Not for food, drug, pesticide or biocidal product use

#### Details of the supplier of the safety data sheet

##### Company

Fisher Scientific  
One Reagent Lane  
Fair Lawn, NJ 07410  
Tel: (201) 796-7100

Acros Organics  
One Reagent Lane  
Fair Lawn, NJ 07410

##### **Emergency Telephone Number**

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11  
Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99  
**CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

### 2. Hazard(s) identification

#### Classification

Classification under 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Carcinogenicity	Category 2
Combustible dust	Yes

#### Label Elements

##### **Signal Word**

Warning

##### **Hazard Statements**

May form combustible dust concentrations in air  
Suspected of causing cancer



##### **Precautionary Statements**

**Prevention**

Obtain special instructions before use  
Do not handle until all safety precautions have been read and understood  
Wear protective gloves/protective clothing/eye protection/face protection

**Response**

IF exposed or concerned: Get medical attention/advice

**Storage**

Store locked up  
Store in a well-ventilated place. Keep container tightly closed

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

Very toxic to aquatic life with long lasting effects

WARNING! This product contains a chemical known in the State of California to cause cancer.

### 3. Composition / information on ingredients

Component	CAS-No	Weight %
Benzophenone	119-61-9	>95

### 4. First-aid measures

<b>Eye Contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention if symptoms occur.
<b>Skin Contact</b>	Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.
<b>Inhalation</b>	Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.
<b>Ingestion</b>	Do not induce vomiting. Get medical attention if symptoms occur.
<b>Most important symptoms/effects</b>	No information available.
<b>Notes to Physician</b>	Treat symptomatically

### 5. Fire-fighting measures

<b>Suitable Extinguishing Media</b>	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
<b>Unsuitable Extinguishing Media</b>	No information available
<b>Flash Point</b>	143 °C / 289.4 °F
<b>Method -</b>	No information available
<b>Autoignition Temperature</b>	No information available
<b>Explosion Limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Sensitivity to Mechanical Impact</b>	No information available
<b>Sensitivity to Static Discharge</b>	No information available

**Specific Hazards Arising from the Chemical**

Fine dust dispersed in air may ignite. Dust can form an explosive mixture in air. Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products**

Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>)

**Protective Equipment and Precautions for Firefighters**

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA**

**Health**  
1

**Flammability**  
1

**Instability**  
0

**Physical hazards**  
N/A

**6. Accidental release measures****Personal Precautions**

Use personal protective equipment. Remove all sources of ignition. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing.

**Environmental Precautions**

Should not be released into the environment. See Section 12 for additional ecological information.

**Methods for Containment and Clean Up**

Remove all sources of ignition. Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

**7. Handling and storage****Handling**

Wear personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition.

**Storage**

Keep containers tightly closed in a dry, cool and well-ventilated place.

**8. Exposure controls / personal protection****Exposure Guidelines**

This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

**Engineering Measures**

Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations and safety showers are close to the workstation location.

**Personal Protective Equipment****Eye/face Protection**

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection**

Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection**

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures**

Handle in accordance with good industrial hygiene and safety practice.

**9. Physical and chemical properties****Physical State**

Solid

**Appearance**

Off-white

**Odor**

aromatic

**Odor Threshold**

No information available

**pH**

No information available

**Melting Point/Range**

47 - 49 °C / 116.6 - 120.2 °F

**Boiling Point/Range**

305 °C / 581 °F

**Flash Point**

143 °C / 289.4 °F

**Evaporation Rate**

No information available

<b>Flammability (solid,gas)</b>	No information available
<b>Flammability or explosive limits</b>	
<b>Upper</b>	No data available
<b>Lower</b>	No data available
<b>Vapor Pressure</b>	No information available
<b>Vapor Density</b>	No information available
<b>Specific Gravity</b>	1.11 (H <sub>2</sub> O=1)
<b>Solubility</b>	No information available
<b>Partition coefficient; n-octanol/water</b>	No data available
<b>Autoignition Temperature</b>	No information available
<b>Decomposition Temperature</b>	No information available
<b>Viscosity</b>	No information available
<b>Molecular Formula</b>	C <sub>13</sub> H <sub>10</sub> O
<b>Molecular Weight</b>	182.22

## 10. Stability and reactivity

<b>Reactive Hazard</b>	None known, based on information available
<b>Stability</b>	Stable under normal conditions.
<b>Conditions to Avoid</b>	Avoid dust formation. Incompatible products. Keep away from open flames, hot surfaces and sources of ignition.
<b>Incompatible Materials</b>	Strong oxidizing agents, Strong reducing agents
<b>Hazardous Decomposition Products</b>	Carbon monoxide (CO), Carbon dioxide (CO <sub>2</sub> )
<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

## 11. Toxicological information

### Acute Toxicity

**Product Information** No acute toxicity information is available for this product

### **Component Information**

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Benzophenone	LD50 > 10 g/kg ( Rat )	LD50 = 3535 mg/kg ( Rabbit )	Not listed

**Toxicologically Synergistic Products** No information available

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

<b>Irritation</b>	No information available
<b>Sensitization</b>	No information available
<b>Carcinogenicity</b>	The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
Benzophenone	119-61-9	Group 2B	Not listed	Not listed	X	Not listed

**Mutagenic Effects** No information available

**Reproductive Effects** No information available.

**Developmental Effects** No information available.

**Teratogenicity** No information available.

STOT - single exposure None known  
 STOT - repeated exposure None known

Aspiration hazard No information available

Symptoms / effects, both acute and delayed No information available

#### Endocrine Disruptor Information

Component	EU - Endocrine Disruptors Candidate List	EU - Endocrine Disruptors - Evaluated Substances	Japan - Endocrine Disruptor Information
Benzophenone	Group III Chemical	Not applicable	Not applicable

**Other Adverse Effects** The toxicological properties have not been fully investigated. See actual entry in RTECS for complete information.

## 12. Ecological information

### Ecotoxicity

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

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Benzophenone	Not listed	Pimephales promelas: LC50 = 15.3 mg/L 96h Oryzias latipes: LC50 = 27 mg/L 48h	EC50 = 8.92 mg/L 30 min	LC50 = 0.27 mg/L 24h

**Persistence and Degradability** No information available

**Bioaccumulation/ Accumulation** No information available.

### Mobility

Component	log Pow
Benzophenone	3.2

## 13. Disposal considerations

**Waste Disposal Methods** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

## 14. Transport information

### DOT

UN-No UN3077  
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.  
 Proper technical name (BENZOPHENONE)  
 Hazard Class 9  
 Packing Group III

### TDG

UN-No UN3077  
 Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCES, SOLID, N.O.S.  
 Hazard Class 9  
 Packing Group III

### IATA

UN-No UN3077  
 Proper Shipping Name Environmentally hazardous substance, solid, n.o.s  
 Hazard Class 9  
 Packing Group III

### IMDG/IMO

UN-No UN3077  
 Proper Shipping Name Environmentally hazardous substance, solid, n.o.s

Hazard Class 9  
Packing Group III

## 15. Regulatory information

### International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Benzophenone	X	X	-	204-337-6	-		X	X	X	X	X

#### Legend:

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

### U.S. Federal Regulations

#### TSCA 12(b)

Component	TSCA 12(b)
Benzophenone	Section 4

SARA 313 Not applicable

#### SARA 311/312 Hazard Categories

Acute Health Hazard	No
Chronic Health Hazard	Yes
Fire Hazard	Yes
Sudden Release of Pressure Hazard	No
Reactive Hazard	No

CWA (Clean Water Act) Not applicable

Clean Air Act Not applicable

OSHA Occupational Safety and Health Administration  
Not applicable

#### CERCLA

Not applicable

California Proposition 65 This product contains the following proposition 65 chemicals

Component	CAS-No	California Prop. 65	Prop 65 NSRL	Category
Benzophenone	119-61-9	Carcinogen	-	Carcinogen

### U.S. State Right-to-Know Regulations

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Benzophenone	-	-	-	X	-

### U.S. Department of Transportation

Reportable Quantity (RQ): N

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DOT Marine Pollutant	N
DOT Severe Marine Pollutant	N

**U.S. Department of Homeland Security**

This product does not contain any DHS chemicals.

**Other International Regulations****Mexico - Grade** No information available**16. Other information**

<b>Prepared By</b>	Regulatory Affairs Thermo Fisher Scientific Email: EMSDS.RA@thermofisher.com
<b>Creation Date</b>	03-May-2010
<b>Revision Date</b>	25-May-2017
<b>Print Date</b>	25-May-2017
<b>Revision Summary</b>	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS). SDS sections updated. 2.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

**End of SDS**