

# Safety Data Sheet

## Phenolphthalein

**CAROLINA**<sup>®</sup>  
www.carolina.com

### Section 1

### Product Description

**Product Name:** Phenolphthalein  
**Recommended Use:** Science education applications  
**Synonyms:** 3,3-Bis-(4-hydroxyphenyl)-1-(3H)-isobenzofuranone, 2,2-Bis(P-hydroxyphenyl)phthalide, 3,3-Bis(4-Hydroxyphenyl)phthalide, alpha-(P-Hydroxyphenyl)-alpha-(4-oxo-2,5-cyclohexadien-1-ylidene)-O-Toluic Acid

**Distributor:** Carolina Biological Supply Company, 2700 York Road, Burlington, NC 27215-3398  
**Chemical Information:** 800-227-1150 (8am-5pm (ET) M-F)  
**Chemtrec:** 800-424-9300 (Transportation Spill Response 24 hours)

### Section 2

### Hazard Identification

Classification of the chemical in accordance with paragraph (d) of §1910.1200;

**Wear the following PPE when handling:**

**DANGER**



Gloves  
Goggles  
Face mask  
Lab coat

Suspected of causing genetic defects. May cause cancer. Suspected of damaging fertility or the unborn child.

**GHS Classification:**

Carcinogenicity Category 1B, Germ Cell Mutagenicity Category 2, Reproductive Toxicity Category 2

**Other Safety Precautions:** IF exposed or concerned: Get medical advice/attention.

**Acute Toxicity Oral Contains** 100 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Dermal Contains** 100 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Inhalation Gas Contains** 100 % of the mixture consists of ingredient(s) of unknown toxicity  
**Acute Toxicity Inhalation Dust/Mist Contains** 100 % of the mixture consists of ingredient(s) of unknown toxicity

### Section 3

### Composition / Information on Ingredients

Chemical Name	CAS #	%
Phenolphthalein	77-09-8	100

### Section 4

### First Aid Measures

**Emergency and First Aid Procedures**

**Inhalation:** In case of accident by inhalation: remove casualty to fresh air and keep at rest.  
**Eyes:** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**Skin Contact:** After contact with skin, wash immediately with plenty of water.  
**Ingestion:** If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

### Section 5

### Firefighting Procedures

**Extinguishing Media:** Use dry chemical, CO2 or appropriate foam.  
**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.  
**Fire and/or Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products.  
**Hazardous Combustion Products:** Carbon dioxide, Carbon monoxide

### Section 6

### Spill or Leak Procedures

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## Steps to Take in Case Material Is Released or Spilled:

Exposure to the spilled material may be irritating or harmful. Follow personal protective equipment recommendations found in Section 8 of this SDS. Additional precautions may be necessary based on special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred. Also consider the expertise of employees in the area responding to the spill.

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation.

## Section 7

## Handling and Storage

**Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required. Do not breathe dust.

**Storage:** Store locked up. Keep container tightly closed in a cool, well-ventilated place.

**Storage Code:** Green - general chemical storage

## Section 8

## Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>	<u>OSHA PEL</u>		
	(TWA)	(STEL)	(TWA)	(STEL)
Phenolphthalein	N/A	N/A	N/A	N/A

### Control Parameters

**Engineering Measures:** No exposure limits exist for the constituents of this product. Use local exhaust ventilation or other engineering controls to minimize exposures and maintain operator comfort.

**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.

**Respiratory Protection:** Respiratory protection may be required to avoid overexposure when handling this product. General or local exhaust ventilation is the preferred means of protection. Use a respirator if general room ventilation is not available or sufficient to eliminate symptoms. None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

**Respirator Type(s):**

**Eye Protection:** Wear chemical splash goggles when handling this product. Have an eye wash station available.

**Skin Protection:** Wear protective gloves. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

**Gloves:** Butyl rubber, Neoprene, Nitrile, Polyvinyl chloride

## Section 9

## Physical Data

<b>Formula:</b> C <sub>20</sub> H <sub>14</sub> O <sub>4</sub>	<b>Vapor Pressure:</b> No data available
<b>Molecular Weight:</b> 318.3	<b>Evaporation Rate (BuAc=1):</b> No data available
<b>Appearance:</b> White to off-white Solid	<b>Vapor Density (Air=1):</b> No data available
<b>Odor:</b> No data available	<b>Specific Gravity:</b> 1.299
<b>Odor Threshold:</b> No data available	<b>Solubility in Water:</b> Slightly Soluble
<b>pH:</b> 7.4	<b>Log Pow (calculated):</b> 2.41
<b>Melting Point:</b> 258 - 262 C	<b>Autoignition Temperature:</b> No data available
<b>Boiling Point:</b> No data available	<b>Decomposition Temperature:</b> No data available
<b>Flash Point:</b> No data available	<b>Viscosity:</b> No data available
<b>Flammable Limits in Air:</b> No data available	<b>Percent Volatile by Volume:</b> No data available

## Section 10

## Reactivity Data

**Reactivity:** Not generally reactive under normal conditions.

**Chemical Stability:** Stable under normal conditions.

**Conditions to Avoid:** None known.

**Incompatible Materials:** Strong oxidizing agents

**Hazardous Decomposition Products:** Carbon dioxide, Carbon monoxide

**Hazardous Polymerization:** Will not occur

## Section 11

## Toxicity Data

**Routes of Entry** Ingestion.

**Symptoms (Acute):** Allergies, Laxative effect

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**Delayed Effects:** Gastrointestinal,  
Blood disorders  
Pulmonary Edema  
Liver disorders  
Impaired Kidney Function

**Acute Toxicity:**  
**Chemical Name**  
Phenolphthalein

**CAS Number**  
77-09-8

**Oral LD50**  
Not applicable

**Dermal LD50**  
Not applicable

**Inhalation LC50**  
Not applicable

**Carcinogenicity:**  
**Chemical Name**  
Phenolphthalein

**CAS Number**  
77-09-8

**IARC**  
Listed

**NTP**  
Listed

**OSHA**  
Listed

**Chronic Effects:**

**Mutagenicity:** Evidence of a mutagenic effect.  
**Teratogenicity:** Evidence of a teratogenic effect (birth defect).  
**Sensitization:** No evidence of a sensitization effect.  
**Reproductive:** Evidence of negative reproductive effects.

**Target Organ Effects:**

**Acute:** Kidneys, Liver, Gastrointestinal tract  
**Chronic:** Kidneys, Liver, Gastrointestinal tract

## Section 12

## Ecological Data

**Overview:** This material is not expected to be harmful to the ecology.  
**Mobility:** This material is expected to have moderate mobility in soil. It absorbs to most soil types.  
**Persistence:** Adsorbs to soil/solids  
**Bioaccumulation:** Bioconcentration may occur.  
**Degradability:** No data  
**Other Adverse Effects:** No data

**Chemical Name**  
Phenolphthalein

**CAS Number**  
77-09-8

**Eco Toxicity**

## Section 13

## Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.  
**Waste Disposal Code(s):** Not Determined

## Section 14

## Transport Information

**Ground - DOT Proper Shipping Name:**  
Not regulated for ground transport by US DOT.

**Air - IATA Proper Shipping Name:**  
Not regulated for air transport by IATA.

## Section 15

## Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

Chemical Name	CAS Number	§ 313 Name	§ 304 RQ	CERCLA RQ	§ 302 TPQ	CAA 112(2) TQ
Phenolphthalein	77-09-8	Phenolphthalein	No	No	No	No

**California Prop 65:**

WARNING: This product contains a chemical known to the state of California to cause cancer, birth defects or other reproductive harm.

## Section 16

## Additional Information

**Revised:** 04/01/2013

**Replaces:** 12/19/2012

**Printed:** 06-21-2013

# Safety Data Sheet

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

## Glossary

ACGIH	American Conference of Governmental Industrial Hygienists	NTP	National Toxicology Program
CAS	Chemical Abstract Service Number	OSHA	Occupational Safety and Health Administration
CERCLA	Comprehensive Environmental Response, Compensation, and Liability Act	PEL	Permissible Exposure Limit
DOT	U.S. Department of Transportation	ppm	Parts per million
IARC	International Agency for Research on Cancer	RCRA	Resource Conservation and Recovery Act
N/A	Not Available	SARA	Superfund Amendments and Reauthorization Act
		TLV	Threshold Limit Value
		TSCA	Toxic Substances Control Act
		IDLH	Immediately dangerous to life and health