

Safety Data Sheet

Carolina's Perfect Solution® Concentrate, with Phenol

CAROLINA®
www.carolina.com

Section 1 Product Description

Product Name: Carolina's Perfect Solution® Concentrate, with Phenol

Recommended Use: Science education applications

Synonyms: Carosafe 2000

Distributor: Carolina Biological Supply Company
2700 York Road, Burlington, NC 27215
1-800-227-1150

Chemical Information: 336-584-0381 (8am-5pm (ET) M-F)

Chemtrec: 703-527-3887 (Transportation Spill Response 24 hours)

Section 2 Hazard Identification

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

DANGER



Highly flammable liquid and vapor. Toxic if swallowed or in contact with skin. Causes severe skin burns and eye damage. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing genetic defects. May cause cancer. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life.

GHS Classification:

Skin Corrosion/Irritation Category 1B, Serious Eye Damage/Eye Irritation Category 1, Skin Sensitisation Category 1, Carcinogenicity Category 1A, Flammable Liquid Category 2, Germ Cell Mutagenicity Category 2, Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 2, Hazardous to the aquatic environment - Acute Category 2, Acute Toxicity - Dermal Category 3, Acute Toxicity - Oral Category 3

Section 3 Composition / Information on Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>%</u>
Carolina's Perfect Solution® Concentrate	N/A	90
Phenol	108-95-2	10

Composition of Carolina's Perfect Solution® Concentrate is a trade secret.

Section 4 First Aid Measures

Emergency and First Aid Procedures

Inhalation: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Eyes: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Skin Contact: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF ON SKIN: Wash with plenty of soap and water. Remove/Take off immediately all contaminated clothing. Wash contaminated clothing before reuse. If skin irritation or rash occurs: Get medical advice/attention.

Ingestion: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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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:	Hydrocarbons, Nitrogen containing gases

Section 6

Spill or Leak Procedures

Steps to Take in Case Material Is Released or Spilled:	<p>Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits.</p> <p>Exposure to the spilled material may be severely irritating or highly toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Ventilate the contaminated area. Keep upwind of the spilled material and isolate exposure. Remove soiled clothing and launder before reuse. Isolate area. Keep unnecessary personnel away. 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. Use an inert absorbent such as sand or vermiculite. Place in properly labeled closed container. Ensure clean-up measures are in compliance with OSHA (29 CFR 1910.120). Ventilate the contaminated area. Isolate area. Keep unnecessary personnel away.</p>
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Section 7

Handling and Storage

Handling:	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting/.../ equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Use personal protective equipment as required. Keep container tightly closed in a cool, well-ventilated place. Avoid contact with skin and eyes. Take off immediately all contaminated clothing. Wear suitable protective clothing, gloves and eye/face protection.
Storage:	Keep container tightly closed. Store in a well-ventilated place. Keep cool. Store locked up. Keep container tightly closed in a cool, well-ventilated place.
Storage Code:	Red - Flammables. Store in approved flammable containers. Store away from oxidizing materials.

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Section 8

Protection Information

<u>Chemical Name</u>	<u>ACGIH</u>		<u>OSHA PEL</u>	
	<u>(TWA)</u>	<u>(STEL)</u>	<u>(TWA)</u>	<u>(STEL)</u>
Alcohol	N/A	1000 ppm STEL	1000 ppm TWA; 1900 mg/m ³ TWA	N/A
Phenol	5 ppm TWA	N/A	5 ppm TWA; 19 mg/m ³ TWA	N/A
Aldehyde	N/A	N/A	0.75 ppm TWA	2 ppm STEL (see 29 CFR 1910.1048)

Control Parameters

Engineering Measures:

Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure. Good general room ventilation should be sufficient to control airborne contaminants to safe levels.

Personal Protective Equipment (PPE):

Lab coat, apron, eye wash, safety shower.

Respiratory Protection:

No respiratory protection required under normal conditions of use. Wear a NIOSH approved respirator if levels above the exposure limits are possible.

Respirator Type(s):

NIOSH approved air purifying respirator with organic vapor cartridge and HEPA filter.

Eye Protection:

Wear chemical splash goggles when handling this product. Have an eye wash station available.

Skin Protection:

Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. 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:

Nitrile - Extra Thick (8 mm), Neoprene, Butyl rubber

Section 9

Physical Data

Formula: See Section 3

Molecular Weight: N/A

Appearance:

Odor: Moderate

Odor Threshold: No data available

pH: No data available

Melting Point: Not available

Boiling Point: 66 C

Flash Point: = 33 C

Flammable Limits in Air: N/A

Vapor Pressure: 19.897 mmHg

Evaporation Rate (BuAc=1): 5.0 (Carolina's Perfect Solution®)

Vapor Density (Air=1): 0.9887

Specific Gravity: .99 (Carolina's Perfect Solution®)

Solubility in Water: Soluble

Log Pow (calculated): No data available

Autoignition Temperature: No data available

Decomposition Temperature: No data available

Viscosity: No data available

Percent Volatile by Volume: N/A

Section 10

Reactivity Data

Reactivity:

No data available

Chemical Stability:

Stable under normal conditions.

Conditions to Avoid:

Sparks, open flame, other ignition sources, and elevated temperatures. Elevated temperatures

Incompatible Materials:

Oxidizing materials, Acetaldehydes, Mineral acids, Metals, Acids, Metal Salts, Peroxides, Strong reducing agents

Hazardous Decomposition Products:

Nitrogen containing gases, Hydrocarbons

Hazardous Polymerization:

Will not occur

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Section 11

Toxicity Data

Routes of Entry: Inhalation, Skin and Eye contact.
Symptoms (Acute): Respiratory disorders
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Phenol		Oral LD50 Rat 512 mg/kg	Dermal LD50 Rabbit 630 mg/kg	INHALATION LC50 Rat 316 MG/M3
Aldehyde		Oral LD50 Mouse 385 mg/kg	Dermal LD50 Rabbit 270 UL/KG	INHALATION LC50 Mouse 505 MG/M3

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Aldehyde		Listed	Listed	Listed

Chronic Effects:

Mutagenicity: Evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: Evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: See Section 2
Chronic: To the best of our knowledge, the toxicological properties of this mixture have not been thoroughly evaluated.

Section 12

Ecological Data

Overview: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility: No data
Persistence: Evaporation into atmosphere, dissolved in water.
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: Material has microbiocidal properties.

Chemical Name	CAS Number	Eco Toxicity
Alcohol		96 HR LC50 PIMEPHALES PROMELAS > 100 MG/L [STATIC] 48 HR EC50 DAPHNIA MAGNA 2 MG/L [STATIC] 24 HR EC50 DAPHNIA MAGNA 10800 MG/L
Phenol		48 HR LC50 DAPHNIA MAGNA 9268 - 14221 MG/L 96 HR LC50 BRACHYDANIO RERIO 27.8 MG/L 96 HR LC50 LEPOMIS MACROCHIRUS 13.5 MG/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 5 - 12 MG/L 96 HR LC50 PIMEPHALES PROMELAS 32 MG/L 48 HR EC50 DAPHNIA MAGNA 10.2 - 15.5 MG/L 96 HR EC50 PSEUDOKIRCHNERIELLA SUBCAPITATA 46.42 MG/L
Aldehyde		96 HR LC50 BRACHYDANIO RERIO 41 MG/L [STATIC] 96 HR LC50 LEPOMIS MACROCHIRUS 1510 µG/L [STATIC] 48 HR LC50 DAPHNIA MAGNA 2 MG/L

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

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Section 14

Transport Information

Ground - DOT Proper Shipping Name:

UN1992, Flammable Liquid, Toxic, NOS (Alcohols, Phenol); PG III, 3, 6.1

Air - IATA Proper Shipping Name:

UN1992, Flammable Liquid, Toxic, NOS (Alcohols, Phenol); PG III, 3, 6.1

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
Phenol		No	No	No	No	No
Aldehyde		No	No	No	No	No

California Prop 65:WARNING: Cancer and Reproductive Harm – www.P65Warnings.ca.gov

Section 16

Additional Information

Revised: None**Replaces: 04/23/2013****Printed: 02-04-2019**

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