Safety Data Sheet

Carbol Fuchsin, Ziehl-Neelsen

CAROLINA®
www.carolina.com

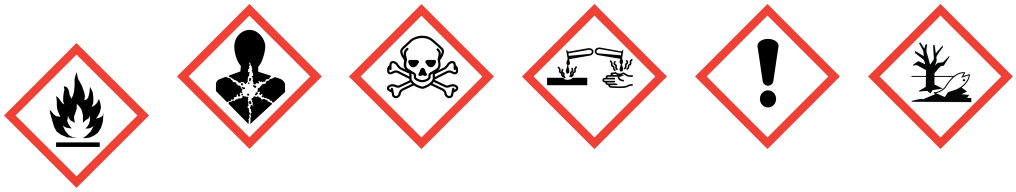
Section 1 Product Description

Product Name:	Carbol Fuchsin, Ziehl-Neelsen
Recommended Use:	Science education applications
Synonyms:	Carbol Fuchsin, Castellani's paint
Distributor:	Carolina Biological Supply Company 2700 York Road, Burlington, NC 27215 1-800-227-1150
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;

DANGER



Flammable liquid and vapor. Causes skin irritation. Causes serious eye damage. Toxic if inhaled. Suspected of causing genetic defects. May cause cancer. May cause damage to organs through prolonged or repeated exposure. Very toxic to aquatic life.

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

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

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Water	7732-18-5	85.81
Ethyl alcohol (Ethanol)	64-17-5	9.51
Phenol	108-95-2	4.39
Basic fuchsin	632-99-5	0.29

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. If skin irritation occurs: Get medical advice/attention.
Ingestion:	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

Section 5 Firefighting Procedures

Extinguishing Media: Use alcohol resistant foam, carbon dioxide, or dry chemical extinguishing agents. Water may be ineffective but water spray can be used extinguish a fire if swept across the base of the flames. Water can absorb heat and keep exposed material from being damaged by fire.

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

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.

Methods for Clean-up 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. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area. Contain the discharged material. Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Collect spillage.

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. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection.

Storage: Keep container tightly closed. Store in a well-ventilated place. 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.

Section 8 Protection Information

	ACGIH		OSHA PEL	
Chemical Name	**(TWA)**	**(STEL)**	**(TWA)**	**(STEL)**
Ethyl alcohol (Ethanol)	N/A	1000 ppm STEL	1000 ppm TWA; 1900 mg/m3 TWA	N/A
Phenol	5 ppm TWA	N/A	5 ppm TWA; 19 mg/m3 TWA	N/A

Control Parameters

Engineering Measures: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

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.

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

Section 9 Physical Data

Formula: See Section 3
Molecular Weight: This product is a mixture.
Appearance: Dark Red Liquid
Odor: Mild Alcohol Odor
Odor Threshold: No data available
pH: 4.7
Melting Point: Estimated 0 C
Boiling Point: Estimated 100 C 100 C
Flash Point: = 49 C
Flammable Limits in Air: 4.0% 20.0%

Vapor Pressure: (mm Hg): 14 [water]
Evaporation Rate (BuAc=1): (Water = 1): >1
Vapor Density (Air=1): (Air = 1): 0.7 [water]
Specific Gravity: Approximately 1.0
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: No data available

Section 10 Reactivity Data

Reactivity: Not generally reactive under normal conditions.
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Elevated temperatures
Incompatible Materials: Water-reactive materials, Oxidizing materials, Acetaldehydes, Mineral acids, Metals
Hazardous Decomposition Products: Carbon oxides
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Inhalation, ingestion, eye or skin contact.
Symptoms (Acute): Central Nervous System Disorders, Cardiovascular system, Impaired Kidney Function, Respiratory disorders, Numbness
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Phenol	108-95-2	Oral LD50 Rat 512 mg/kg	Dermal LD50 Rabbit 630 mg/kg	INHALATION LC50 Rat 316 MG/M3

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Ethyl alcohol (Ethanol)	64-17-5	Listed	Listed	Listed
Phenol	108-95-2	Not listed	Not listed	Not listed
Basic fuchsin	632-99-5	Listed	Not listed	Listed

Chronic Effects:
Mutagenicity: Evidence of a mutagenic effect.
Teratogenicity: No evidence of a teratogenic effect (birth defect).
Sensitization: No evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: Kidneys, Central Nervous System, Cardiovascular system, Lungs
Chronic: Kidneys, Liver

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Section 12 Ecological Data

Overview: Moderate ecological hazard. This product may be dangerous to plants and/or wildlife.
Mobility: This material is expected to have very high mobility in soil. It does not absorb to most soil types.
Persistence: No data
Bioaccumulation: No data
Degradability: Biodegrades quickly.
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Ethyl alcohol (Ethanol)	64-17-5	96 HR LC50 PIMEPHALES PROMELAS 13400 - 15100 MG/L [FLOW-THROUGH] 96 HR LC50 PIMEPHALES PROMELAS > 100 MG/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 12 - 16 ML/L [STATIC] 48 HR EC50 DAPHNIA MAGNA 2 MG/L [STATIC] 24 HR EC50 DAPHNIA MAGNA 10800 MG/L 48 HR LC50 DAPHNIA MAGNA 9268 - 14221 MG/L
Phenol	108-95-2	96 HR LC50 ORYZIAS LATIPES 23.4 - 36.6 MG/L [STATIC] 96 HR LC50 ORYZIAS LATIPES 33.9 - 43.3 MG/L [FLOW-THROUGH] 96 HR LC50 CYPRINUS CARPIO 0.00175 MG/L [SEMI-STATIC] 96 HR LC50 BRACHYDANIO RERIO 27.8 MG/L 96 HR LC50 POECILIA RETICULATA 31 MG/L [SEMI-STATIC] 96 HR LC50 POECILIA RETICULATA 34.09 - 47.64 MG/L [STATIC] 96 HR LC50 LEPOMIS MACROCHIRUS 11.5 MG/L [SEMI-STATIC] 96 HR LC50 LEPOMIS MACROCHIRUS 11.9 - 25.3 MG/L [FLOW-THROUGH] 96 HR LC50 LEPOMIS MACROCHIRUS 13.5 MG/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 5 - 12 MG/L 96 HR LC50 ONCORHYNCHUS MYKISS 4.23 - 7.49 MG/L [SEMI-STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 7.5 - 14 MG/L [STATIC] 96 HR LC50 ONCORHYNCHUS MYKISS 5.449 - 6.789 MG/L [FLOW-THROUGH] 96 HR LC50 PIMEPHALES PROMELAS 32 MG/L 96 HR LC50 PIMEPHALES PROMELAS 20.5 - 25.6 MG/L [STATIC] 96 HR LC50 PIMEPHALES PROMELAS 11.9 - 50.5 MG/L [FLOW-THROUGH] 48 HR EC50 DAPHNIA MAGNA 10.2 - 15.5 MG/L 48 HR EC50 DAPHNIA MAGNA 4.24 - 10.7 MG/L [STATIC] 72 HR EC50 DESMODESMUS SUBSPICATUS 187 - 279 MG/L [STATIC] 96 HR EC50 PSEUDOKIRCHNERIELLA SUBCAPITATA 0.0188 - 0.1044 MG/L [STATIC] 96 HR EC50 PSEUDOKIRCHNERIELLA SUBCAPITATA 46.42 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): U188 - Phenol

Section 14 Transport Information

Ground - DOT Proper Shipping Name:
UN1992; Flammable liquids, toxic, n.o.s., (Ethyl alcohol, Phenol solution); 3; III;

Air - IATA Proper Shipping Name:
UN1992; Flammable liquids, toxic, n.o.s., (Ethyl alcohol, Phenol solution); 3; III;

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	108-95-2	Phenol	1000 lb RQ	1000 lb final RQ; 454 kg final RQ	500 lb lower TPQ; 10000 lb upper TPQ	No

California Prop 65: No California Proposition 65 ingredients

Section 16 Additional Information

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