Safety Data Sheet

Coomassie Protein Stain Solution

CAROLINA®
www.carolina.com

Section 1 Product Description

Product Name:	Coomassie Protein Stain Solution
Recommended Use:	Science education applications
Synonyms:	N/A
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

Highly flammable liquid and vapor. Causes severe skin burns and eye damage. Causes serious eye damage. May cause respiratory irritation. May cause drowsiness or dizziness.

GHS Classification:
Skin Corrosion/Irritation Category 1A, Serious Eye Damage/Eye Irritation Category 1, Flammable Liquid Category 2, Specific Target Organ Systemic Toxicity (STOT) - Single Exposure Category 3

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
2-Propanol	67-63-0	45
Water	7732-18-5	45
Acetic Acid, Glacial	64-19-7	9.75
Coomassie Brilliant Blue	6104-58-1	0.25

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. Wash contaminated clothing before reuse.
Ingestion:	IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

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:	Vapors may travel back to ignition source. Closed Containers exposed to heat may explode. In use, may form flammable/explosive vapor-air mixture.
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 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. Ventilate the contaminated area. 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. Shut off ignition sources; including electrical equipment and flames. Do not allow smoking in the area.

Section 7 Handling and Storage

Handling: Keep away from heat/sparks/open flames/hot surfaces. – No smoking. Keep container tightly closed. Use explosion-proof electrical/ventilating/lighting/…/ equipment. Use only non-sparking tools. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe dust/vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution. Do not ingest or take internally. Bond and ground containers when transferring liquid.

Storage: Store in a well-ventilated place. Keep container tightly closed. Store locked up. Suitable for any general chemical storage.
Avoid freezing to prevent bursting of the container.
Store above 17 C (62.6 F)

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)**
2-Propanol	200 ppm TWA	400 ppm STEL	400 ppm TWA; 980 mg/m3 TWA	N/A
Acetic Acid, Glacial	10 ppm TWA	15 ppm STEL	10 ppm TWA; 25 mg/m3 TWA	N/A

Control Parameters

Engineering Measures: No exposure limits exist for the constituents of this product. General room ventilation might be required to maintain operator comfort under normal conditions of use.

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

Respiratory Protection: No respiratory protection required under normal conditions of use.

Respirator Type(s): NIOSH approved air purifying respirator with organic vapor/acid gas cartridge and dust/mist 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, Nitrile - Extra Thick (8 mm)

Section 9 Physical Data

Formula: See Section 3
Molecular Weight: N/A
Appearance: Blue Liquid
Odor: Strong Alcohol Odor
Odor Threshold: No data available
pH: No data available
Melting Point: -89 C
Boiling Point: 83 C

Vapor Pressure: N/A
Evaporation Rate (BuAc=1): N/A
Vapor Density (Air=1): >1
Specific Gravity: N/A
Solubility in Water: Soluble
Log Pow (calculated): No data available
Autoignition Temperature: No data available
Decomposition Temperature: No data available

Flash Point: 12 C
Flammable Limits in Air: (Isopropanol) LEL: 2.5% UEL: 12.0%
Viscosity: No data available
Percent Volatile by Volume: N/A

Section 10 Reactivity Data

Reactivity: Not generally reactive under normal conditions.
Chemical Stability: Stable under normal conditions.
Conditions to Avoid: Sparks, open flame, other ignition sources, and elevated temperatures. Temperatures above the high flash point of this combustible material in combination with sparks, open flames, or other sources of ignition.
Incompatible Materials: Acids, Strong oxidizing agents, Strong reducing agents, Metals, Peroxides, Epoxides, Isocyanates, Water-reactive materials, Acetic anhydride, Acetaldehydes, Caustics (bases), Oxidizing materials, Halogens, Carbonates
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Inhalation, ingestion, eye or skin contact.
Symptoms (Acute): Eye disorders, Respiratory disorders
Delayed Effects: No data available

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
2-Propanol	67-63-0	Oral LD50 Rat 5045 mg/kg Oral LD50 Mouse 3600 mg/kg		INHALATION LC50 Rat 16000 ppm
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Acetic Acid, Glacial	64-19-7			INHALATION LC50 MAMMAL 11.4 GM/M3 INHALATION LC50 Mouse 5620 ppm

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
2-Propanol	67-63-0	Listed	Not listed	Not listed
Acetic Acid	64-19-7	Not listed	Not listed	Not listed

Chronic Effects:
Mutagenicity: No 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: Skin, Eyes, Respiratory system
Chronic: No information available, Teeth

Section 12 Ecological Data

Overview: Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife. Harmful to fish and other water organisms.
Mobility: No data
Persistence: Biodegradation
Bioaccumulation: No data
Degradability: No data
Other Adverse Effects: No data

Chemical Name	CAS Number	Eco Toxicity

2-Propanol	67-63-0	96 HR LC50 LEPOMIS MACROCHIRUS > 1400000 µG/L 96 HR LC50 PIMEPHALES PROMELAS 11130 MG/L [STATIC] 48 HR EC50 DAPHNIA MAGNA 13299 MG/L 72 HR EC50 DESMODESMUS SUBSPICATUS > 1000 MG/L 96 HR EC50 DESMODESMUS SUBSPICATUS > 1000 MG/L
Water	7732-18-5	No data available
Acetic Acid, Glacial	64-19-7	Aquatic LC50 (96h) Fathead Minnow 79 MG/L Aquatic EC50 (24h) Daphnia 47 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): D001

Section 14 Transport Information

Ground - DOT Proper Shipping Name:
UN 1219, Isopropyl alcohol solution, 3, II
Labels: Flammable

Air - IATA Proper Shipping Name:
UN 1219, Isopropyl alcohol solution, 3, II

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
2-Propanol	67-63-0	Isopropyl alcohol	No	No	No	No
Acetic Acid, Glacial	64-19-7	No	5000 lb RQ	5000 lb final RQ; 2270 kg final RQ	No	No

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