Safety Data Sheet

Specimens in 10% Formalin Solution

4-17-2023: File reviewed, more current MSDS/SDS not available. JMC

CAROLINA®
www.carolina.com

Section 1 Product Description

Product Name: Specimens in 10% Formalin 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

Combustible Liquid Harmful if swallowed. Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May cause cancer. Harmful to aquatic life.

GHS Classification:
Serious Eye Damage/Eye Irritation Category 1, Skin Sensitisation Category 1, Carcinogenicity Category 1A, Skin Corrosion/Irritation Category 2, Hazardous to the aquatic environment - Acute Category 3, Flammable Liquid Category 4, Acute Toxicity - Oral Category 4

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

Section 3 Composition / Information on Ingredients

Chemical Name	CAS #	%
Water	7732-18-5	96.8
Formaldehyde	50-00-0	2.5
Methanol	67-56-1	0.7

Composition percentages are for solution only. Animal specimens account for ~50% of the total volume in the container. {EMSFORM_03SDS_COMP_NOTE}

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: 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: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. If skin irritation or rash occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Ingestion: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

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. Vapors may travel back to ignition source. Closed Containers exposed to heat may explode.

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 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. Absorb the liquid and scrub the area with detergent and water. Pick up wash liquid with additional absorbent and place in a disposable container. Contain spilled liquid with sand clay DO NOT use combustible materials such as sawdust.

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. Avoid breathing dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do no 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. Do not breathe dust/vapor. Do not get in eyes, on skin, or on clothing. Retained residue may make empty containers hazardous; use caution.

Storage: Store in a well-ventilated place. Keep cool. Store locked up. Suitable for any general chemical storage.

Storage Code: Blue - Toxic. Store separately in a secured area.

Section 8 Protection Information

	ACGIH		OSHA PEL	
Chemical Name	**(TWA)**	**(STEL)**	**(TWA)**	**(STEL)**
Formaldehyde	N/A	N/A	0.75 ppm TWA	2 ppm STEL (see 29 CFR 1910.1048)
Methanol	200 ppm TWA	250 ppm STEL	200 ppm TWA; 260 mg/m3 TWA	N/A

Control Parameters

Engineering Measures: Local exhaust ventilation, process enclosures, or other engineering controls are necessary 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. Wear a NIOSH approved respirator if levels above the exposure limits are possible.

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, Neoprene, Polyvinyl chloride

Section 9 Physical Data

Formula: CH2O in H2O
Molecular Weight: 30.02 g/mol
Appearance: Colorless Liquid
Odor: Strong Alcohol Odor Pungent
Odor Threshold: No data available
pH: No data available

Vapor Pressure: 0.002 hPa at 25 °C
Evaporation Rate (BuAc=1): Less than 1
Vapor Density (Air=1): 1.03 (air = 1)
Specific Gravity: Approx. 1.0
Solubility in Water: Soluble
Log Pow (calculated): No data available

Melting Point: No data available
Boiling Point: 100 C Estimated 100 C
Flash Point: 85
Flammable Limits in Air: N/A N/A

Autoignition Temperature: No data available
Decomposition Temperature: No data available
Viscosity: No data available
Percent Volatile by Volume: < 5%

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.
Incompatible Materials: Water-reactive materials, Acids, Metals, Metal Salts, Oxidizing materials, Peroxides, Strong reducing agents
Hazardous Polymerization: Will not occur

Section 11 Toxicity Data

Routes of Entry Inhalation, ingestion, eye or skin contact.
Symptoms (Acute): Gastrointestinal,
Delayed Effects: Listed by NTP, IARC as causing cancer.

Acute Toxicity:

Chemical Name	CAS Number	Oral LD50	Dermal LD50	Inhalation LC50
Water	7732-18-5	Oral LD50 Rat 90000 mg/kg		
Formaldehyde	50-00-0	Oral LD50 Mouse 385 mg/kg	Dermal LD50 Rabbit 270 UL/KG	INHALATION LC50 Mouse 505 MG/M3
Methanol	67-56-1	Oral LD50 Mouse 7300 mg/kg		INHALATION LC50 Rat 64000 ppm

Carcinogenicity:

Chemical Name	CAS Number	IARC	NTP	OSHA
Formaldehyde	50-00-0	Listed	Listed	Listed
Methanol	67-56-1	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: Evidence of a sensitization effect.
Reproductive: No evidence of negative reproductive effects.
Target Organ Effects:
Acute: Eyes, Skin, Respiratory system
Chronic: Respiratory system, Eyes, Skin

Section 12 Ecological Data

Overview: Slight ecological hazard. In high concentrations, this product may be dangerous to plants and/or wildlife.
Mobility: No data
Persistence: Evaporation into atmosphere, dissolved in water. , Biodegradation
Bioaccumulation: Bioconcentration is not expected to occur.
Degradability: Biodegrades quickly.
Other Adverse Effects: Material has microbiocidal properties.

Chemical Name	CAS Number	Eco Toxicity
Water	7732-18-5	No data available
Formaldehyde	50-00-0	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
Methanol	67-56-1	96 HR LC50 PIMEPHALES PROMELAS > 100 MG/L [STATIC]

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 Transport by DOT

Air - IATA Proper Shipping Name:
Not Regulated for 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
Formaldehyde	50-00-0	Formaldehyde	100 lb RQ	100 lb final RQ; 45.4 kg final RQ	500 lb TPQ	No
Methanol	67-56-1	Methanol	No	5000 lb final RQ; 2270 kg final RQ	No	No

California Prop 65:

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

Section 16 Additional Information

Revised: 08/21/2018 **Replaces: 06/27/2018** **Printed: 08-25-2018**

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