



ZYMO RESEARCH
The Beauty of Science is to Make Things Simple

Material Safety Data Sheet

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To promote safe handling, each customer or recipient should: (1) notify its employees, agents, contractors and others whom it knows or believes will use this material or the information in this MSDS and any other information regarding hazards or safety; (2) furnish this same information to each of its customers for the product; and (3) request its customers to notify their employees, customers, and other users of the product of this information.

Section 1 – Product and Company Information

Reagent/Buffer Name: Z-Comp 2X Stock Wash Buffer
Catalog Number: T3001-2-10, T3001-2-30

Company: Zymo Research Corp.
Street Address: 17062 Murphy Ave.
City, State, Zip Code, Country: Irvine, CA 92614 US
Phone: 949-679-1190
Fax: 949-266-9452

Section 2 – Ingredient Information/Composition

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous Components Name	CAS #	Formula	Concentration
N/A	N/A	N/A	N/A

According to the OSHR 29 CFR§1910_1200, a mixture that contains less than one percent by weight or volume of a non-carcinogenic hazardous component is not considered hazardous unless there is evidence to the contrary. However, we recommend the use of gloves, lab coats and eye protection when working with these or any chemical reagents.

Section 3 – Hazard Identification

Not applicable.

Section 4 – First Aid Measures

In Case of

Eye Contact: Flush contaminated eye(s) with copious volumes of water for at least 15 minutes. Get medical attention if eye(s) remain irritated.

Skin Contact: Wash contaminated areas with soap and water as contaminated clothing is removed. Do not wear contaminated clothing until after it has been properly cleaned.

Ingestion: Wash out mouth with water provided person is conscious.

Inhalation: Remove to fresh air. Give oxygen if breathing becomes difficult. Should breathing stop-give artificial respiration. Call a physician.

Section 5 – Fire Fighting Measures

Extinguishing Media:	Noncombustible. Use extinguishing media appropriate to surrounding fire conditions.
Special Fire Fighting Procedures:	Wear self-contained breathing apparatus and protective garments to prevent contact with skin and eyes.

Section 6 – Accidental Release Measures

General Information:	Wear self-contained breathing apparatus, chemical safety goggles, rubber boots, and heavy rubber gloves.
Spills / Leaks:	Absorb with sand or vermiculite and place in a bag for waste disposal. Ventilate area and wash spill site after material pickup is complete.

Section 7 – Handling and Storage

Storage:	Store tightly closed at room temperature.
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Section 8 – Exposure Controls / Personal Protection

Wear appropriate NIOSH / MSHA-Approved respirator, chemical resistant gloves, chemical safety goggles. Safety shower and eye both. Do not get into contact with eyes, skin and clothing. Wash hands thoroughly after handling. Store in a cool dry place.

Section 9 – Physical and Chemical Properties

Physical States / Form:	Liquid
Appearance:	Colorless

Section 10 – Stability and Reactivity

Substances To Be Avoided:	N/A
Hazardous, Combustion, Or Decomposition Products:	N/A
Hazardous Polymerization:	Will not occur.

Section 11 – Toxicological Information

Toxicity Data:	N/A
Acute Effects	
Inhalation:	May be harmful by inhalation.
Eye Contact:	May cause eye irritation.
Skin Contact:	May cause skin irritation.
Ingestion:	May be harmful if ingested.
Prolonged Exposure:	N/A
Chronic Effects:	N/A
RTECS Number:	N/A
Additional Information:	The product should be handled with the normal caution accorded to chemical handling. Additional harmful properties cannot be ruled out.

Section 12 – Ecological Information

No information available.

Section 13 – Disposal Considerations

No information available.

Section 14 – Transport Considerations

No information available.

Section 15 – Regulatory Information

No information available.

Section 16 – Other Information

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Section 1 – Product and Company Information

Reagent/Buffer Name: Z-Comp 2X Stock Competent Buffer
Catalog Number: T3001-3-10, T3001-3-30

Company: Zymo Research Corp.
Street Address: 17062 Murphy Ave.
City, State, Zip Code, Country: Irvine, CA 92614 US
Phone: 949-679-1190
Fax: 949-266-9452

Section 2 – Ingredient Information/Composition

Description: Mixture of the substances listed below with nonhazardous additions.

Dangerous Components Name	CAS #	EC No.	Formula	Percent
Glycerol	56-81-5	200-289-5	C ₃ H ₈ O ₃	50%

Section 3 – Hazard Identification

Target Organs: Kidneys

NFPA Ratings (scale 0 - 4) : Health = 1
Fire = 1
Reactivity = 0

HMIS Ratings (scale 0 – 4) : Health = 1
Fire = 1
Reactivity = 0

Potential Acute Health Effects: Slightly hazardous in case of skin contact (irritant), eye contact (irritant), ingestion, inhalation.

Potential Chronic Health Effects: May be toxic to kidneys. Repeated or prolonged exposure to the substance can produce target organs damage.

Section 4 – First Aid Measures

In Case of

Eye Contact: Flush contaminated eye(s) with copious volumes of water for at least 15 minutes. Get medical attention if eye(s) remain irritated.

Skin Contact:	Wash contaminated areas with soap and water as contaminated clothing is removed. Do not wear contaminated clothing until after it has been properly cleaned. Get medical attention if irritation develops.
Ingestion:	Wash out mouth with water provided person is conscious. Do NOT induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms appear.
Inhalation:	Remove victim to fresh air. Give oxygen if breathing becomes difficult. Should breathing stop-give artificial respiration. Get medical attention immediately.

Section 5 – Fire Fighting Measures

Flammability:	May be combustible at high temperature.
Extinguishing Media:	Dry chemical powder, water spray, fog or foam.
Products of Combustion:	Carbon oxides (CO, CO ₂), irritating and toxic fumes.
Fire Hazards in Presence of Various Substances:	Slightly flammable to flammable in presence of open flames and sparks, of heat, of oxidizing materials. Non-flammable in presence of shocks.
Explosion Hazards in Presence of Various Substances:	Explosive in presence of oxidizing materials.

Section 6 – Accidental Release Measures

General Information:	Wear self-contained breathing apparatus, safety goggles, rubber boots, full suit, and protective gloves.
Spills / Leaks:	Absorb with an inert dry material and place in an appropriate waste disposal container for waste disposal. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Eliminate all ignition sources. Dispose of according to local and regional authority requirements. Ventilate area and wash spill site after material pickup is complete.

Section 7 – Handling and Storage

Handling:	Keep away from sources of ignition, heat, and incompatibles such as oxidizing agents. Ground all equipment containing material. Wear suitable protective clothing. Do not ingest. Do not breathe gas/fumes/ vapor/spray.
Storage:	Keep container tightly closed in a cool, well-ventilated area. Hygroscopic.

Section 8 – Exposure Controls / Personal Protection

Provide appropriate ventilation or local exhaust. Respiratory protection is not necessary for normal handling. Wear protective gloves, safety glasses, lab coat. Provide safety showers and eye stations proximal to the work-station location. Use a vapor respirator under conditions where exposure to the substance is apparent and/or engineering controls are not feasible. Be sure to use an approved/certified respirator or equivalent. Do not breathe vapor. Avoid contact with eyes, skin and clothing. Avoid prolonged or repeated exposure. Keep tightly closed. Wash thoroughly after handling.

Exposure Limits:	TWA: 10 (mg/m ³) from ACGIH (TLV) [United States] [1999] Inhalation Total. TWA: 15 (mg/m ³) from OSHA (PEL) [United States] Inhalation Total. TWA: 10 STEL: 20 (mg/m ³) [Canada] TWA: 5 (mg/m ³) from OSHA (PEL) [United States] Inhalation Respirable. Consult local authorities for acceptable exposure limits.
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Section 9 – Physical and Chemical Properties

Physical States / Form:	Liquid
Appearance:	Colorless

Melting Point:	19°C
Boiling Point:	290°C
Autoignition Temperature:	369°C
Flash Point:	160°C
Vapor Pressure:	0 kPa 20°C
Specific Gravity:	1.261
Vapor Density:	3.1
Solubility:	Miscible in water and alcohol.

Section 10 – Stability and Reactivity

Stability:	Stable.
Substances To Be Avoided:	Strong oxidizing agents, strong bases.
Conditions To Be Avoided:	Avoid contact with incompatible materials, excess heat and ignition, sources, moisture.
Corrosivity:	Non-corrosive in presence of glass.
Hazardous Polymerization:	Will not occur.

Section 11 – Toxicological Information

Acute Effects	
Inhalation:	Inhalation of mist may cause respiratory tract irritation.
Eye Contact:	Causes eye irritation.
Skin Contact:	Causes skin irritation. May be absorbed through the skin.
Ingestion:	Low hazard. Low toxicity except with very large doses. Prolonged or repeated ingestion may affect the blood, endocrine system, respiratory system, and may cause kidney injury.
Route Of Entry::	Eye contact. Skin absorption.
RTECS Number:	MA8050000

Toxicity Data:

Route	Organism	Dose	Reference
Oral	Rat	LD50: 12600 mg/kg	FEPR7 4,142,1945
Intraperitoneal	Rat	LD50: 4420 mg/kg	RCOCB8 56,125,1987
Subcutaneous	Rat	LC50: 100 mg/kg	NIIRDN 6,215,1982
Intravenous	Rat	LD50: 5566 mg/kg	ARZNAD 26,1581,1976
Oral	Mouse	LD50: 4090 mg/kg	FRZKAP (6),56,1977
Intraperitoneal	Mouse	LC50: 8700 mg/kg	ARZNAD 28,1579,1978
Subcutaneous	Mouse	LC50: 91 mg/kg	NIIRDN 6,215,1982
Intravenous	Mouse	LD50: 4250 mg/kg	JAPMA8 39,583,1950
Oral	Rabbit	LD50: 27 gm/kg	DMDJAP 31,276,1959
Intravenous	Rabbit	LD50: 53 gm/kg	NIIRDN 6,215,1982
Oral	Guinea Pig	LC50: 7750 mg/kg	JHTAB 23,259,1941

Only selected registry of toxic effects of chemical substances (RTECS) data is presented here. See actual entry in RTECS for complete information.

Additional Information:	The product should be handled with the normal caution accorded to chemical handling. Additional harmful properties cannot be ruled out.
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Section 12 – Ecological Information

Environmental Toxicity: This material is not expected to be toxic to aquatic life.

Section 13 – Disposal Considerations

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Do not dispose with household garbage.

Section 14 – Transport Considerations

DOT Classification: Not a DOT controlled material (United States).

Section 15 – Regulatory Information

Federal and State Regulations:

TSCA 8(b) Inventory: Glycerine

California Proposition 65 Warnings:

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: No products were found.

California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: No products were found.

Other Regulations:

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

EINECS: This product is on the European Inventory of Existing Commercial Chemical Substances.

AICS: Listed

Canadian Domestic Substance List (DSL): Listed

National Inventory (ENCS): Listed

National Inventory (KECI): Listed

National Inventory (PICCS): Listed

Other Classifications:

DSCL (EEC): N/A

Canada – WHMIS: Not controlled under WHMIS (Canada).

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Prolonged Exposure:	N/A
Chronic Effects:	N/A
RTECS Number:	N/A

Additional Information:

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