

# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product:** DNazol® Direct  
**Cat No:** DN-131

Molecular Research Center, Inc.  
5645 Montgomery Rd.  
Cincinnati, Ohio 45212  
1-888-841-0900

Product Name: DNazol® Direct (Sample Processing Reagent for Direct PCR)  
Chemical Formula: A formulation  
Molecular Weight: A formulation

NFPA RATINGS: (scale 0-4) Health=1 Fire=1 Reactivity=0  
HMIS RATINGS: (scale 0-4) Health=1 Fire=1 Reactivity=0 PPE=C

CHEMTREC EMERGENCY NUMBER: Only in the event of an emergency involving a spill, leak, fire exposure or accident. USA: 1-800-424-9300; International: 1-703-527-3887

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## 2. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	CAS No.	Percent
Polyethylene Glycol	25322-68-3	< 70 %
Nonhazardous Ingredients	N/A	Proprietary Information

Toxicological Data	Polyethylene glycol
Oral (LD50)	Acute: 4,000 mg/kg [rat], 20,000 mg/kg [mouse]
Dermal (LD50)	Acute: 20,000 mg/kg [rabbit]

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## 3. HEALTH HAZARD IDENTIFICATION

### ROUTES OF ENTRY:

Inhalation: No  
Skin: Yes  
Ingestion: Yes

**EFFECTS OF OVEREXPOSURE:** A slightly hazardous product, which can irritate skin and eyes and possible ingestion toxicity. To the best of our knowledge, the chemical, physical and toxicological properties have not been thoroughly investigated.

### ACUTE EFFECTS

**EYE EXPOSURE:** May cause reddening and irritation of the eye. Prolonged exposure may be corrosive to eye and mucus membranes.

**SKIN OVEREXPOSURE:** May cause irritation or reddening. Prolonged exposure may be corrosive to skin. Skin inflammation is characterized by itching, scaling, reddening or occasionally blistering.

**INHALATION:** May cause irritation of the throat, coughing and respiratory tract irritation. Avoid inhalation of fumes after heating the solution.

**INGESTION:** May be harmful if swallowed.

#### 4. FIRST AID

**FIRST AID FOR EYES:** Check for and remove contact lenses. Flush with water in an eyewash for at least 15 minutes, holding eyelids open. Obtain medical attention if discomfort or medical symptoms persist.

**FIRST AID FOR SKIN:** Remove contaminated clothing. Flush area with water for 10-15 min. Use deluge safety shower to decontaminate large areas of body surface with running water and nonabrasive soap. Obtain medical attention if discomfort or symptoms persist.

**FIRST AID FOR INHALATION:** Remove person to fresh air. Monitor for respiratory distress and start artificial respiration, if needed. Obtain medical attention if discomfort or symptoms persist.

**FIRST AID FOR INGESTION:** Remove dentures, if any and rinse mouth with water provided person is conscious. Have conscious person drink several glasses of water or milk. Do not induce vomiting unless directed to do so by medical personnel. Obtain medical attention.

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#### 5. FIRE AND EXPLOSION HAZARD DATA

Combustible: May be combustible at high temperature

Flash point: N.D.A.

Autoignition temperature: N.D.A.

**EXTINGUISHING MEDIA:** Fire is possible at elevated temperatures. Use water spray, carbon dioxide, dry chemical powder, or polymer foam.

**FIREFIGHTING PROCEDURES:** Wear positive pressure, self-contained breathing apparatus and protective clothing. Prevent contact with skin and eyes. Combustion products include carbon oxides (CO, CO<sub>2</sub>).

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#### 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PROTECTIVE EQUIPMENT FOR SPILL CONDITIONS:** Use gloves, boots, and impermeable clothing to avoid skin contact. Use chemical goggles, face shield, or other appropriate eye protection.

**SPILL AND LEAK RESPONSE:** Evacuate area, allowing trained personnel to use pre-planned procedures to perform cleanup. Wear personal protective equipment as required and provide adequate ventilation. Contain liquid with absorbent material such as sand or vermiculite and transfer to appropriate waste container. Further decontaminate spill area by washing surface with soap and water. Dispose of contaminated material in accordance with federal, state and local hazardous waste disposal regulations.

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#### 7. HANDLING AND STORAGE

**IRRITANT:** Keep container tightly closed in a cool, dry area. Avoid contact with acids. Avoid skin contact and eye contact. Wear eye protection and gloves when handling. Store reagent at room temperature (15-30 C), under standard atmospheric conditions. Keep container tightly sealed. Suitable for most laboratory storage areas. Avoid eating and smoking in work areas. Wash hands thoroughly after using this material.

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#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

##### GENERAL PROTECTION AND PRECAUTIONS

Ensure availability of safety shower and eyewash before using. Provide exhaust ventilation to minimize airborne vapors.

**ROUTINE OPERATIONS:** For routine use, latex gloves, chemical safety goggles, and lab coat are considered the minimum body protection. Avoid generation of aerosols. Wash hands thoroughly after handling.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and odor:	clear liquid with no odor.
Vapor density:	N.D.A
Evaporation rate:	N.D.A.
Melting point:	N/A
Boiling point:	N.D.A.
Specific gravity:	>1
Vapor press.mmHG@20C	N.D.A.
Solubility:	Easily soluble in cold water, hot water and methanol.
pH	< 13.5

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## 10. STABILITY AND REACTIVITY

**STABILITY:** Stable under normal temperature and pressure. May corrode metal containers and metal surfaces.

**INCOMPATIBILITIES:** Strong oxidizing agents and strong acids. Incompatible with polymerization catalysts such as peroxides and persulfates.

**HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS:** Carbon monoxide and carbon dioxide may form when heated to decomposition. Hazardous polymerization will not occur.

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## 11. TOXICOLOGICAL INFORMATION

**TOXICITY DATA:** Causes eye and skin irritation. Material is an irritant to mucous membranes and upper respiratory tract. Only selected data is presented here. To the best of our knowledge, the properties of this formulation have not been thoroughly investigated.

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## 12. ECOLOGICAL INFORMATION

**ENVIRONMENTAL FATE:** Possible hazardous short-term degradation products are not likely. However, more toxic long-term degradation products may arise.

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## 13. DISPOSAL CONSIDERATIONS

Note that treatment and disposal activities may be subject to laws and regulations that may include before-the-fact permitting as well as reporting requirements. It is the purchaser's responsibility to comply.

**DISPOSAL BY INCINERATION:** Keep in sealed containers between use and final disposal. May be incinerated in a hazardous waste incinerator equipped with appropriate controls for oxides. All waste disposal activities are subject to federal, state and local laws and regulations.

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## 14. TRANSPORT INFORMATION

This material is not a hazardous material as defined by 49 CFR 172.101 by the U.S. DOT.

## 15. REGULATORY INFORMATION

Note that it is the responsibility of the purchaser and of those handling this material to comply with applicable laws and regulations that are site and activity specific.

TSCA: 8(b) INVENTORY Polyethylene glycol 200

SARA: NO RQ LISTED.

SAFETY PHRASE: S24/25 AVOID CONTACT WITH SKIN AND EYES.

## 16. OTHER INFORMATION

Reviewed by BW, MJ

Creation date 1/10/06

Revision date 2/01/09

This information is believed to be accurate and represents the information currently available to us. However, we make no warranty of merchantability or any other warranty, expressed or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

### Abbreviations:

N/A

Not Available

N.D.A

No data available

TLV-STEL

Threshold Limit Values (Short-Term Exposure Limit)

TLV-TWA

Threshold Limit Values (Time-Weighted Average)

OSHA PEL-TWA

OSHA Permissible Exposure Level