

# MATERIAL SAFETY DATA SHEET



Conforms to 93/112/EC and ISO 11014-1

## 1. Chemical Product and Company Identification

**Product Name:** ProtoGel Quick-Cast 12%**Product Number:** EC-895

### Chemical Names/

### Description:

Aqueous solution of acrylamides and buffer salts.

### Manufacturer

National Diagnostics  
305 Patton Drive  
Atlanta, GA 30338

### Telephone Numbers

(800) 526-3867  
(404) 699-2121

### Emergency Number

Chemtrec  
(800) 424-9300

## 2. Composition/Information on Ingredients

Component	% Comp.	CAS #	EINECS #
ACRYLAMIDES	12%	79-06-1	201-173-7

Proprietary Electrophoresis Buffers

Flash Point Method

N.A.

Flammable Limits

N.A.

Autoignition  
temperature

N.A.

### Extinguishing media

Use media appropriate to the primary cause of fire.

### Protective Equipment

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

### Hazardous Combustion Products

Thermal decomposition products may include toxic oxides of nitrogen and carbon.

### Unusual Fire and Explosion Hazards

N.A.

NFPA Codes: Health 2 Flammability 1 Reactivity 1

## 6. Accidental Release Measures

## **Steps to be taken in case material is released or spilled**

Contain and clean up spill immediately, prevent from entering floor drains. Contain liquids using absorbents. Shovel all spill materials into disposal drum. Scrub spill area with detergent, flush with copious amounts of water.

### **Waste Disposal Method**

Disposal must be made in accordance with applicable federal, state, and local regulations.

### **Personal Precautions**

If water solvent has evaporated, wear NIOSH approved air-purifying respirator.

## **7. Handling and Storage**

### **Handling**

Avoid contact and inhalation. Do not get in eyes, on skin, on clothing. Wash thoroughly after handling. Wear special protective equipment (Sec. 8) where exposures may exceed established levels.

### **Storage**

Keep in a tightly closed container, stored in a cooled, dry, ventilated area. Protect from physical damage. Isolate from incompatible materials (section 10).

### **Storage Temperature**

(20 C)

### **Disposal**

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (dust, solids).

## **8. Exposure Controls/Personal Protection**

### **Airborne Exposure Limits**

Component: ACRYLAMIDES

ACGIH Threshold Limit Value (TLV): 0.03 mg/m<sup>3</sup> (TWA) (skin) for solid

OSHA Permissible Exposure Limit (PEL): 0.3 mg/m<sup>3</sup> (TWA) (skin) for solid

### **Engineering Controls**

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborn Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

### **Respiratory Protection**

If exposure limits are exceeded, wear a full-face respirator with organic vapor cartridge and high efficiency dust mist filter. Beyond fifty times exposure limits or when exposure levels are not known, wear a full-face piece positive pressure respirator.

### **Eye Protection**

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

### **Skin Protection**

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

### **Other Control Measures**

Weekly examinations for skin peeling of hands and fingers. Comments: Stress good personal cleanliness and housekeeping to prevent skin contact. Wear clean work clothing daily. Do not home launder.

## 9. Physical Properties

<b>Boiling point</b>	220 F	<b>Evaporation Rate</b>	1.0
<b>Melting point</b>	N.A.	<b>Solubility in water</b>	Soluble
<b>Vapor pressure (mmHg)</b>	Water	<b>pH</b>	Neutral
<b>Vapor density (Air = 1)</b>	N.A.	<b>Specific gravity (H2O = 1)</b>	1.15
<b>% volatile by volume</b>	51%		

## 10. Stability and Reactivity

### Stability

Stable under ordinary conditions of use and storage.

### Conditions to Avoid

Heat, shock, UV light, and incompatibles.

### Hazardous Decomposition Products

Upon heating, may produce ammonia, nitrogen oxides, cyanuric acid, cyanic acid, biuret, carbon dioxide, carbon monoxide, and hydrogen.

### Hazardous Polymerization

May occur

### Incompatibles

ACRYLAMIDES:

Acrylamide reacts with acids, oxidizing agents, and bases. Spontaneously reacts with hydroxyl-, amino-, and sulfhydryl- containing compounds. Avoid vinyl polymerization initiators or contamination with aluminum, iron, copper, brass, and bronze.

Proprietary Electrophoresis Buffers:

Tris-Base:

No incompatibility data found.

Glycine:

No incompatibility data found.

## 11. Toxicological Information

### Product LD50 Values

ProtoGel Quick-Cast 12%	Oral Rat LD50 (mg/kg):	1667
ProtoGel Quick-Cast 12%	Dermal Rabbit LD50 (mg/kg):	7283

### Component Cancer List Status

	NTP Carcinogen		IARC Category
	Known	Anticipated	
ACRYLAMIDES	No	Yes	2A
Proprietary Electrophoresis Buffers	No	No	None
Tris-Base	No	No	None
Glycine	No	No	None

## 12. Ecological Information

## ACRYLAMIDES

When pure acrylamide is released into the soil, this material may biodegrade to a moderate extent.

When released into the soil, this material is expected to leach into groundwater. This material is not expected to significantly bioaccumulate. When released into the air, this material may be removed from the atmosphere to a moderate extent by wet deposition.

### Proprietary Electrophoresis Buffers

No information found.

### Tris-Base

No information found on either the environmental fate or environmental toxicity of this material.

### Glycine

No information found.

## 13. Disposal Considerations

Observe all national, state, and local regulations regarding product disposal. Containers of this material may be hazardous when empty since they retain product residues (dust, solids).

## 14. Transport Information

### D.O.T.

Proper Shipping Name: Not Regulated

Hazard Class: N.A.

UN Number: N.A.

Packing Group: N.A.

### I.A.T.A.

Proper Shipping Name: Not Regulated

Hazard Class: N.A.

UN Number: N.A.

Packing Group: N.A.

### I.M.O.

Proper Shipping Name: Not Regulated

Hazard Class: N.A.

UN Number: N.A.

Packing Group: N.A.

## 15. Regulatory Information

### United States

#### TSCA Regulatory Statement

All intentional ingredients are listed on the TSCA Inventory.

#### SARA 311/312 Hazard Categories

Component	Fire	Pressure	Reactivity	Acute	Chronic
ACRYLAMIDES	No	No	No	Yes	Yes
Proprietary Electrophoresis Buffers	No	No	No	Yes	Yes
Tris-Base	No	No	No	Yes	No
Glycine	No	No	No	No	No

### Europe

## EEC Regulatory

All intentional ingredients are listed on the European EINECS Inventory.

### EEC LABEL SYMBOL AND CLASSIFICATION



**R: 45-46-24/25-48/23/24/25**

**May cause cancer. May cause heritable genetic damage. Also toxic in contact with skin and if swallowed. Danger of serious damage to health by prolonged exposure through inhalation, in contact with skin or if swallowed.**

**S: 53-45**

**Avoid exposure, obtain special instructions before use. In case of accident or if you feel ill, seek medical advice immediately (show the label where possible).**

## 16. Other Information

**NFPA Codes: Health 2 Flammability 1 Reactivity 1**

MANUFACTURER DISCLAIMER: The information given herein is offered in good faith as accurate, but without guarantee. Conditions of the use and suitability of the product for particular uses are beyond our control. All risks of use of the product are therefore assumed by the user. Nothing is intended as a recommendation for uses which infringe valid patents or as extending license under valid patents. Appropriate warnings and safe handling procedures should be provided to handlers and users.