



# MATERIAL SAFETY DATA SHEET

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

Responsible Name: Diazyme Administration  
Effective 08/05/08

## SECTION 1: PRODUCT and COMPANY IDENTIFICATION

<b>PRODUCT NAME:</b>	<b>CATALOG #</b>
<b>Total Bile Acids Assay</b>	<b>DZ042A</b>
<b>Reagent R1</b>	<b>DZ042A-R1</b>
<b>Reagent R2</b>	<b>DZ042A-R2</b>

Supplier: **Diazyme Laboratories**  
12889 Gregg Court  
Poway, CA 92064, USA  
858-455-4754

Manufacturer: **Diazyme Laboratories**  
12889 Gregg Court  
Poway, CA 92064, USA  
858-455-4754

Authorized Representative: **MDSS GmbH**  
Schiffgraben 41  
30175 Hannover  
Germany

In case of Emergency: Call Diazyme Laboratories (858-455-4754)

Intended Use: Refer to the instruction booklet for proper and intended use. Otherwise, contact supplier for specific applications.

## SECTION 2: HAZARDOUS INGREDIENTS

Product	Ingredient	Amount	CAS #	EINECS #	Symbols	R-Phrase	S-Phrase
Reagent R1	None	N/A	N/A	N/A	N/A	N/A	N/A
Reagent R2	Triethanolamine	0.1%	102-71-6	203-049-8	None Listed	None Listed	24/25

NOTE: Physical and health hazard information on reagent mixtures has not been determined. Any physical and health information noted is based on 1) evaluation of data for the pure ingredients, and 2) concentration of ingredients as packaged.

## SECTION 3: HAZARD IDENTIFICATION

### TRIETHANOLAMINE

#### EMERGENCY OVERVIEW

*Hygroscopic (absorbs moisture from the air).*

#### Potential Health Effects

**Eye:** Contact produces irritation, tearing, and burning pain. May cause transient corneal injury.

**Skin:** May cause irritation with burning pain, itching and redness. Prolonged skin contact may cause injury especially if the skin is abraded. Skin contact may cause an allergic skin reaction (sensitization) in a small proportion of individuals.

**Ingestion:** Causes gastrointestinal irritation with nausea, vomiting and diarrhea.

**Inhalation:** Material has a very low vapor pressure and inhalation exposures are not expected unless material is heated or misted.

**Chronic:** May cause liver and kidney damage. Prolonged or repeated contact may cause skin necrosis and/or ulceration of the skin. Prolonged and/or repeated skin exposure may cause allergic dermatitis.

		Triethanolamine
HMIS RATING	HEALTH:	0
	FLAMMABILITY:	0
	REACTIVITY:	0
NFPA RATING	HEALTH:	0
	FLAMMABILITY:	0
	REACTIVITY:	0
HAZARD SYMBOLS:		N/A
R-Phrase:		None Listed
S-Phrase:		None Listed

## SECTION 4: FIRST AID MEASURES

### TRIETHANOLAMINE:

**Eyes:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.

**Skin:** In case of contact, immediately flush skin with soap and plenty of water. Remove contaminated clothing and shoes. Get medical aid if symptoms occur. Wash clothing before reuse.

**Ingestion:** If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.

**Inhalation:** If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

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Use process enclosure, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Exposure Limits**

CAS# 102-71-6:

Belgium - TWA: 5 mg/m<sup>3</sup> VLEGermany: 5 mg/m<sup>3</sup> TWA (inhalable fraction)Malaysia: 5 mg/m<sup>3</sup> TWANetherlands: 5 mg/m<sup>3</sup> MACSpain: 5 mg/m<sup>3</sup> VLA-ED**Personal Protective Equipment****Eyes:** Wear chemical splash goggles.**Skin:** Wear appropriate protective gloves to prevent skin exposure.**Clothing:** Wear appropriate protective clothing to prevent skin exposure.**Respirators:** A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****TRIETHANOLAMINE:****Physical State:** solid or liquid  
**Color:** viscous - colorless to pale yellow  
**Odor:** ammonia-like - weak odor  
**pH:** 10.5 (15 g/l H<sub>2</sub>O)  
**Vapor Pressure:** 3.59E-006 mm Hg @ 25 deg C  
**Viscosity:** 601 cps @ 25 deg C  
**Boiling Point:** 335 deg C (dec)  
**Freezing/Melting Point:** 21 deg C ( 69.80°F)  
**Autoignition Temperature:** 315 deg C ( 599.00 deg F)**Flash Point:** 179 deg C ( 354.20 deg F)  
**Explosion Limits: Lower:** 1.3  
**Explosion Limits: Upper:** 8.5  
**Decomposition Temperature:**  
**Solubility in water:** Soluble  
**Specific Gravity/Density:** 1.125  
**Molecular Formula:** (HOCH<sub>2</sub>CH<sub>2</sub>)<sub>3</sub>N  
**Molecular Weight:** 149.19**SECTION 10: STABILITY AND REACTIVITY****TRIETHANOLAMINE:****Chemical Stability:** Stable under normal temperatures and pressures. Darkens on exposure to light and air. Hygroscopic: absorbs moisture or water from the air.**Conditions to Avoid:** Light, moisture, exposure to air, excess heat.**Incompatibilities with Other Materials:** Strong oxidizing agents, strong acids, copper, copper alloys.**Hazardous Decomposition Products:** Nitrogen oxides, carbon monoxide, carbon dioxide.**Hazardous Polymerization:** Will not occur.



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### SECTION 11: TOXICOLOGICAL INFORMATION

#### TRIETHANOLAMINE:

**RTECS#:** CAS# 102-71-6: KL9275000  
**LD50/LC50:** RTECS:  
**CAS# 102-71-6:** Draize test, rabbit, eye: 20 mg Severe;  
Draize test, rabbit, eye: 10 mg Mild;  
Draize test, rabbit, skin: 560 mg/24H Mild;  
Oral, mouse: LD50 = 5846 mg/kg;  
Oral, rabbit: LD50 = 2200 mg/kg;  
Oral, rat: LD50 = 4920 uL/kg;  
Skin, rabbit: LD50 = >20 mL/kg;  
Skin, rat: LD50 = >16 mL/kg;.  
**Carcinogenicity:** Triethanolamine - IARC: Group 3 (not classifiable)  
**Other:** See actual entry in RTECS for complete information.

### SECTION 12: ECOLOGICAL INFORMATION

#### TRIETHANOLAMINE:

**Ecotoxicity:** Fish: Fathead Minnow: 5600 mg/L; 96H; LC50

### SECTION 13: DISPOSAL CONSIDERATIONS

#### TRIETHANOLAMINE:

Products considered hazardous for supply are classified as Special Waste and the disposal of such chemicals is covered by regulations which may vary according to location. Contact a specialist disposal company or the local authority or advice. Empty containers must be decontaminated before returning for recycling. Dispose of in a manner consistent with federal, state, and local regulations.

### SECTION 14: TRANSPORTATION INFORMATION

#### TRIETHANOLAMINE:

	IATA	IMO	RID/ADR
<b>Shipping Name:</b>	Not regulated.	Not regulated.	Not regulated.
<b>Hazard Class:</b>			
<b>UN Number:</b>			
<b>Packing Group:</b>			

### SECTION 15: REGULATORY INFORMATION

#### TRIETHANOLAMINE:

##### European/International Regulations

European Labeling in Accordance with EC Directives  
Hazard Symbols: Not available  
Risk Phrases:  
Safety Phrases:  
S 24/25 Avoid contact with skin and eyes.

WGK (Water Danger/Protection)  
CAS# 102-71-6: 1

Canada  
CAS# 102-71-6 is listed on Canada's DSL List

##### US Federal

TSCA  
CAS# 102-71-6 is listed on the TSCA Inventory.

### SECTION 16: OTHER INFORMATION

PREPARED BY: Diazyme Administration  
PHONE NO: 858-455-4754  
DATE PREPARED: 31 August 2006



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The information provided on this Material Safety Data Sheet is provided in the interest of promoting safe handling of the material. While this information is believed to be correct Diazyme makes no warranty in respect to any of the information disclosed. Observe all federal, provincial, state and local laws concerning health and pollution.