Material Safety Data Sheet

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

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For Information Call: 1-800-638-4835
Web Site: http://www.biomerieux-usa.com/index.htm

EMERGENCY CONTACT
1-800-424-9300 (Chemtrec)
Or Contact Your Local
Poison Control Center

Product Number: 70492
Product Name: PYZ Reagent
Product Description: Reagent for *in vitro* diagnostic use and microbiological control.

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

WARNING! Combustible liquid and vapor. May cause irritation to the eyes and skin. Inhalation of vapor or mists may cause upper respiratory irritation, dizziness, nausea, narcosis. Absorbed through the skin. Reproductive hazard. May damage fertility and the unborn child. Do not get in eyes, on skin or clothing. Do not breathe vapors. Keep away from heat, sparks, and flames.

US OSHA Classification (29CFR1910.1200): Toxic, Target Organ Effects, Combustible liquid
EU Classification (1999/45/EC): Toxic, Flammable, R10, R20/21/22, R60, R61, S43, S53
(See section 16 for full text of R and S Phrases.)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

CAS#	COMPONENT	PERCENTAGE
109-86-4	2-Methoxyethanol	93%
7758-94-3	Ferrous Chloride	1%
50-81-7	Ascorbic Acid	6%

SECTION 4: FIRST AID MEASURES

Inhalation: Immediately remove the victim to fresh air. If breathing has stopped administer artificial respiration. Get immediate medical attention.

Skin Contact: Immediately remove contaminated clothing. Flush contacted area with large amounts of water for at least 15 minutes. Get medical attention.

Eye Contact: Immediately flush eyes with large amounts of water for at least 15 minutes while holding the eyelids open to assure that the entire surface is flushed. Get immediate medical attention.

Ingestion: Immediately call poison control and follow their instructions. Never give anything by mouth to an unconscious or convulsing person. Do not induce vomiting unless directed to do so by medical personnel. Get immediate medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Extinguishing Media: Dry chemical, CO_2, water spray or alcohol foam.

Special Fire Fighting Procedures: Firefighters should wear self-contained breathing apparatus and full protective clothing.

Unusual Fire and Explosion Hazards: Combustible and forms explosive mixtures with air. Can react with air or oxidizers to form explosive peroxides.

Hazardous Combustion Products: Oxides of carbon, hydrogen chloride.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Remove all sources of ignition. Wear protective equipment (gloves, respirator, suit, goggles). Ventilate the area. Contain and collect spill with an inert, non-combustible absorbent, place in container for disposal.

SECTION 7: HANDLING AND STORAGE

Follow the directions on the package insert. Follow prudent laboratory practices of avoiding contact (breathing, touching, smoking, etc.) with a laboratory reagent. Do not breathe vapors. Prevent contact with the skin and eyes. Wash thoroughly after handling. Use only with adequate ventilation.

Follow use storage instructions on the product label and package insert. Keep away from all sources of ignition. Store in the dark at 2-8°C. Reagents are sensitive to light.

SECTION 8: EXPOSURE CONTROLS AND PERSONAL PROTECTION

Component	Exposure Limits
2-Methoxyethanol	0.1 ppm TWA ACGIH TLV 25 ppm TWA OSHA PEL
Ferrous Chloride (as soluble iron salts)	1 mg/m^3 TWA ACGIH TLV (as Fe)
Ascorbic Acid	None Established

Ventilation: Use only with adequate local exhaust ventilation to maintain exposure levels below the occupational exposure limits.

Respiratory Protection: If exposures exceed the occupational exposure limits wear an approved organic vapor respirator or supplied air respirator. Follow all applicable regulations in the selection and use of respirators.

Gloves: Impervious gloves such as butyl rubber.

Eye Protection: Chemical safety goggles.

Other Protective Equipment/Clothing: Appropriate impervious clothing as needed to prevent contact.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: Clear, pale yellow liquid with a mild ethereal odor. The odor threshold for 2-methoxyethanol is reported to be 0.2 ppm in air.

pH: Not available	**Boiling Point:** 255°F/124.5°C
Vapor Pressure: 6.2 mmHg @ 20°C	**Melting Point:** -121°F/-85°C
Vapor Density: 2.62	**Percent Volatile:** 93%
Evaporation Rate Approx. 1	**Specific Gravity:** 0.96
Water Solubility: Complete	**Coefficient of Oil/Water:** Not determined
Flash Point: 108°F/42°C	**Autoignition Temp:** 550°F/285°C
Flammability Limits: **LEL:** 2.3% **UEL:** 24.5%	

SECTION 10: STABILITY AND REACTIVITY

Stability: Stable under normal temperatures and pressures.
Conditions to Avoid: Avoid excessive heat and all sources of ignition.

Incompatibility: Strong oxidizers. 2-Methoxyethanol reacts in air to form highly explosive peroxides.
Hazardous Decomposition Products: Oxides of carbon and hydrogen chloride.
Hazardous Polymerization: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

ACUTE HEALTH HAZARDS

Inhalation: Inhalation of vapors or mists may cause irritation to the mucous membranes and upper respiratory tract, headache, dizziness, nausea, and narcosis.

Skin Contact: Contact may cause mild irritation. Readily absorbed through the skin causing symptoms similar to inhalation exposures.

Eye Contact: Contact may cause irritation and temporary corneal clouding.

Ingestion: May cause abdominal pain, vomiting, dizziness, blurring of vision, back pain, convulsions, and coma. Kidney damage, cardiac failure, and pulmonary edema may develop.

Chronic Health Hazards: Chronic exposure to 2-methoxyethanol may cause damage to the liver, kidneys, central nervous system and blood system. 2-Methoxyethanol has been found to cause birth defects and adverse effects on fertility.

Carcinogen Status: None of the components of this product is listed as a carcinogen or suspected carcinogen by ACGIH, IARC, NTP or OSHA.

Medical Conditions Aggravated by Exposure: Individuals with pre-existing respiratory, liver, kidney, and blood disease may be at increased risk from exposure to this product.

Acute Toxicity Values:
2-Methoxyethanol: Oral rat LD50: 2370 mg/kg; Inhalation rat LC50: 1500 ppm/7 hr. Mutation Data. Reproductive Effects Data.
Ferrous Chloride: Oral rat LD50: 450 mg/kg. Mutation Data.

SECTION 12: ECOLOGICAL INFORMATION

2 Methoxyethanol: LD50 Goldfish: >5000 mg/L/24 hr; LC50 Rainbow trout fingerlings: 15,520 ppm/96 hr 12°C.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Method: Dispose of product in accordance with all local, state/provincial and federal regulations.

Container Disposal: Empty containers should be collected for proper disposal.

SECTION 14: TRANSPORT INFORMATION

U.S. DOT HAZARD CLASSIFICATION

Proper Shipping Name: Ethylene glycol monomethyl ether solution
Technical Name: None
UN Number: UN1188
Hazard Class/Packing Group: 3, PG III
Labels Required: Flammable liquid
DOT Packaging Requirements: 49 CFR 173.203 and 49 CFR 173.242
Exceptions: 49 CFR 173.150

IATA/ICAO AIR TRANSPORTATION

Proper Shipping Name: Ethylene glycol monomethyl ether solution
Technical Name:
UN Number: UN1188
Hazard Class/Packing Group: 3, III
Labels Required: Flammable liquid (60-220 L – Cargo Aircraft Only)
IATA Packaging Requirements: Passenger Aircraft-309; Cargo Aircraft-310
Comment: Up to 180-5mL bottles PYZ in a package can be shipped under IATA as "Dangerous Goods in Excepted Quantities". Kits in packages that do not exceed a gross mass of 64lbs can be shipped under DOT (173.4) as excepted small quantities (inner receptacle max 30mL).

SECTION 15: REGULATORY INFORMATION

SARA 311/312: Hazard Categories for SARA 311/312 Reporting: Acute Health, Chronic Health, Fire Hazard
SARA 313: This product contains the following chemicals subject to Annual Release Reporting Requirements under SARA Section 313(40 CFR372):

2-Methoxyethanol (glycol ether compound) 93%

CERCLA Section 103 Reportable Quantity: This product has a CERCLA RQ of 10,700 lbs based on the RQ of 2-Methoxyethanol of 10,000 lbs present at 93%. Some states have more stringent reporting requirements. Report all spills in accordance with local, state, and federal regulations.
California Proposition 65: This product contains the following substances known to the State of California to cause cancer and/or reproductive harm: None known.
Canada WHMIS Classification: Class B-3, Class D-2-A
This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

SECTION 16: OTHER INFORMATION

NFPA Hazard Rating: Health: 2 Fire: 2 Instability: 0

Revision History:

01/25/1994: New MSDS
12/15/2009: Updated format – Switched sections 2 and 3, Moved Exposure Limits to Section 8, Reworded CERCLA statement. Moved flammability data to Section 9. Removed PN 70590.

Full text of R and S Phrases from Section 2:
R10: Flammable.
R20/21/22: Harmful by inhalation, in contact with skin, and if swallowed.
R60: May impair fertility.
R61: May cause harm to the unborn child.
S45: In case of an accident or if you feel unwell, seek medical advice immediately (show the label where possible).
S53: Avoid exposure (avoid contact with skin and eyes, vapor inhalation and harsh superheating).

The above information is believed to be correct as of the date of this sheet but does not purport to be all inclusive and shall be used only as a guide. Since the use of this information and the conditions of use of the product are not within the control of bioMérieux S.A. nor bioMérieux, Inc., it is the user's obligation to assure safe use of this product