

MATERIAL SAFETY DATA SHEET

MSDS.0370.01, rev. 09/02

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Iron & Total Iron Binding Capacity

Cat. No. 0370, 0370-110, 0370-220, etc.

PRECAUTION

For In-Vitro Diagnostic Use Only

HAZARDOUS INGREDIENTS

In compliance with OSHA's Hazard Communication Standard (29CFR 1910.1200), a chemical mixture is considered hazardous if it contains 1.0% or more of a hazardous compound or 0.1% or more of a carcinogen. The product contains hazardous material(s) in excess of these amounts, therefore, precautions adequate for the pure form of the material(s) are presented here.

Principle Hazardous Component(s) of Iron Ferrozine Color Reagent, 0371

| <u>Chemical Name</u> | <u>CAS No.</u> | <u>Concentration</u> |
|----------------------|----------------|----------------------|
| 1) Hydroxylamine HCl | 5470-11-1 | 1.5 % |

Principle Hazardous Component(s) of Iron HA Buffer, 0372

| <u>Chemical Name</u> | <u>CAS No.</u> | <u>Concentration</u> |
|----------------------|----------------|----------------------|
| 2) Sodium Acetate | 127-09-3 | 4.3 % |
| 1) Hydroxylamine HCl | 5470-11-1 | 1.5 % |

Principle Hazardous Component(s) of Iron Binding TRIS Buffer, 0373

| <u>Chemical Name</u> | <u>CAS No.</u> | <u>Concentration</u> |
|----------------------|----------------|----------------------|
| 3) TRIS | 77-86-1 | 6.06 % |

Principle Hazardous Component(s) of Iron Standard, 0374

| <u>Chemical Name</u> | <u>CAS No.</u> | <u>Concentration</u> |
|----------------------|----------------|----------------------|
| 1) Hydroxylamine HCl | 5470-11-1 | 5 % |

PHYSICAL CHARACTERISTICS (Physical/Fire/Explosive Data)

1) Hydroxylamine HCl

Boiling Point: NA
Specific Gravity: NA

Melting Point: 155 °C
Flash Point: NA

HAZARDS: Emits toxic fumes under fire conditions.

EXTINGUISHING MEDIA: Use carbon dioxide, dry chemical powder, or foam.

GENERAL INFORMATION: Wear a self contained breathing apparatus and protective clothing.

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2) Sodium Acetate

Boiling Point: NA
Specific Gravity: 1.45

Melting Point: Decomposes @ 324 °C
Flash Point: NA

HAZARDS: Emits toxic fumes under fire conditions.

EXTINGUISHING MEDIA: Use water spray, carbon dioxide, dry chemical powder, alcohol foam.

GENERAL INFORMATION: Wear a self contained breathing apparatus and protective clothing.

3) TRIS

Boiling Point: 219 °C
Specific Gravity: NA

Melting Point: 171.2 °C
Flash Point: NA

HAZARDS: Emits toxic fumes under fire conditions.

EXTINGUISHING MEDIA: Use water spray, carbon dioxide, dry chemical powder, alcohol or polymer foam.

GENERAL INFORMATION: Wear a self contained breathing apparatus and protective clothing.

REACTIVITY DATA

Iron and Total Iron Binding Reagents contain Hydroxylamine HCl, Sodium Acetate and TRIS.

STABILITY: Stable

INCOMPATIBILITY: None

HAZARDOUS POLYMERIZATION: Will not occur

HEALTH HAZARD DATA

1) Hydroxylamine HCl

THRESHHOLD LIMIT: Not available
CARCINOGEN: No

LD50 (oral rat): 141g/kg

SIGNS/SYMPTOMS OF EXPOSURE: Harmful if swallowed, inhaled, or absorbed through skin. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and skin. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea and vomiting. Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed two to four hours or longer. May cause convulsions or allergic reactions.

2) Sodium Acetate

THRESHHOLD LIMIT: Not available
CARCINOGEN: No

LD50 (oral rat): Not available

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SIGNS/SYMPTOMS OF EXPOSURE: Inhalation is not expected to be a health hazard. Ingestion of large doses may produce abdominal pain, nausea and vomiting. May cause irritation, redness and pain to skin. Contact to eyes may cause irritation, redness and pain.

3) TRIS

THRESHHOLD LIMIT: Not available
CARCINOGEN: No

LD50 (oral rat): 5900 mg/kg

SIGNS/SYMPTOMS OF EXPOSURE: May be harmful by inhalation, ingestion or skin absorption. Causes eye and skin irritation. Material is irritating to mucous membranes and upper respiratory tract.

EMERGENCY AND FIRST AID PROCEDURES

| | |
|-------------|--|
| INHALATION: | Provide fresh air. Restore or support breathing. Keep victim warm and quiet. Get medical attention. |
| EYES: | Flush eyes including under the eyelids with water for 15 minutes. Get medical attention. |
| SKIN: | Flush skin with water for 15 minutes. Wash affected area thoroughly with soap and water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists. |
| INGESTION: | Wash out mouth with water. Do not give anything by mouth to an unconscious person. If conscious, drink large quantities of water to dilute. Get medical attention. |

SPECIAL PROTECTION INFORMATION

| | |
|-------------------------|---|
| RESPIRATORY PROTECTION: | Wear respiratory protection |
| VENTILATION: | Good ventilation |
| GLOVES: | Yes |
| LAB COAT: | Yes |
| EYE PROTECTION: | Yes |
| LABORATORY PRECAUTIONS: | Do not pipette by mouth. Normal laboratory precautions are recommended. |

SPECIAL PRECAUTIONS

Use caution when handling material. Treat product with respect. Follow accepted normally applied laboratory precautions.

SPILL/LEAK PROCEDURES

| | |
|-----------------|--|
| Spill Response: | Ventilate area. Absorb with non-reactive absorbent. After absorption, scoop up into a container for proper disposal. Wash area clean after material is scooped up. |
|-----------------|--|

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Waste Response: Dispose of in a manner consistent with federal, state and local regulation.

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