

Iron & Total Iron Binding Capacity

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Identification: Iron & Total Iron Binding Capacity
Ref No. 0370, 0370-110, etc.

Test kit contains Iron Ferrozine Color Reagent, Iron HA Buffer, Iron Binding TRIS Buffer, and Iron Standard.

Company Identification: Stanbio Laboratory
1261 North Main Street
Boerne, TX 78006

Telephone Number: (830) 249-0772
Website: <http://www.stanbio.com>

SECTION 2 – HAZARDS IDENTIFICATION

Routes of Exposure: Only when used as directed.

Classification system: 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.

National Fire Protection Association (NFPA) ratings (scale 0-4):

Health=0
Fire=0
Reactivity=0

Hazard Overview

Health: Minimal risk if used as directed.

Fire: Not considered a fire hazard.

Reactivity: Iron and Total Iron Binding Reagents contain Hydroxylamine HCl, Sodium Acetate and TRIS. Minimal risk.

Special Hazards:

Hydroxylamine HCl: Emits toxic fumes under fire conditions.

Sodium Acetate: Emits toxic fumes under fire conditions.

TRIS: Emits toxic fumes under fire conditions.

Carcinogenicity information

OSHA (Occupational Safety and Health Administration): None of the ingredients is listed.

NTP (National Toxicology Program): None of the ingredients is listed.

IARC (International Agency for Research on Cancer): None of the ingredients is listed.

SECTION 3 – PRODUCT COMPOSITION

The test kit is composed of Iron Ferrozine Color Reagent, Iron HA Buffer, Iron Binding TRIS Buffer, and Iron Standard.

Iron Ferrozine Color Reagent/0371 (The reagent contains by percentage the following amounts of chemicals)

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

Iron HA Buffer/0372 (The reagent contains by percentage the following amounts of chemicals)

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

Iron Binding TRIS Buffer/0373 (The reagent contains by percentage the following amounts of chemicals)

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

Iron Standard/0374 (The reagent contains by percentage the following amounts of chemicals)

<u>Chemical Name</u>	<u>CAS No.</u>	<u>Concentration</u>
Hydroxylamine HCl	5470-11-1	5.0 %

SECTION 4 – FIRST AID MEASURES

After inhalation: Provide fresh air. Restore or support breathing. Keep victim warm and quiet. Get medical attention.

After skin contact: 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.

After eye contact: Flush eyes including under the eyelids with water for 15 minutes. Get medical attention.

After swallowing: 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.

SECTION 5 – FIRE FIGHTING MEASURES**Suitable extinguishing agents:**

Hydroxylamine HCl: Use carbon dioxide, dry chemical powder, or foam.

Sodium Acetate: Use water spray, carbon dioxide, dry chemical powder, alcohol foam.

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

Protective equipment: Wear a self-contained breathing apparatus and protective clothing.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Safe work practices: Disposal should be made in accordance with existing disposal practices employed for infectious waste.

Measures for environmental protection: Prevent liquid and vapor from entering sewage system, storm drains, surface waters, and soil.

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Measures for cleaning/ collecting: Wash spill area with appropriate cleaning materials. Dispose of in a manner consistent with federal, state and local regulation.

SECTION 7 – HANDLING AND STORAGE

Information for safe handling: Refer to the package insert or product label for additional information on storage conditions.

Information about protection against explosions and fires: No special measures required.

Requirements to be met by storerooms and receptacles: Refer to the package insert or product label for additional information on storage conditions.

Information about storage in one common storage facility: Store product in original packaging.

Further information about storage conditions: Protect from heat and direct sunlight.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with Occupational Exposure Limits: The product does not contain any hazardous ingredients with occupational exposure limits established by OSHA, ACGIH, or NIOSH.

General protective and hygienic measures: Always maintain good housekeeping. Do not eat, drink or store food and beverages in areas where chemicals are used. Wash hands before breaks and at the end of the work shift.

Breathing equipment: Use adequate protection to prevent inhalation, as well as good ventilation.

Hand protection: Wear necessary gloves when handling.

Eye protection: Wear appropriate safety glasses or other protective eyewear.

Body protection: Wear apron, laboratory coat or appropriate protective clothing when handling.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Form: Solid

Color: Not applicable

Odor: Not identified

Boiling point/ Boiling range:

Hydroxylamine HCl: NA/NA

Sodium Acetate: NA/NA

TRIS: 219°C /NA

Flash point:

Hydroxylamine HCl: NA

Sodium Acetate: NA

TRIS: NA

Auto igniting: Not self-igniting

Danger of explosion: Not applicable

Density at 20°C (68°F): Not applicable

Solubility in/Miscibility with Water: Not applicable

pH-value at 20°C (68°F): Not applicable

Water: Not applicable

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SECTION 10 – STABILITY AND REACTIVITY

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications

Dangerous reactions: No dangerous reactions known.

Stability: Stable.

Incompatibility: None.

Hazardous Polymerization: Will not occur.

Dangerous reactions: No dangerous decomposition products known.

SECTION 11 – TOXICOLOGICAL INFORMATION

LD50/50LC values for hazardous ingredients per OSHA criteria:

Ingredients (100% pure substance/s)

Hydroxylamine HCl - LD50 (oral rat): 141g/kg

Sodium Acetate - LD50 (oral rat): Not available.

TRIS - LD50 (oral rat): 5900 mg/kg.

Primary toxicological effects of the final product

Skin irritation:

Hydroxylamine HCl: Harmful if absorbed through skin. Material is extremely destructive to tissue of the skin.

Sodium Acetate: May cause irritation, redness and pain to skin.

TRIS: May be harmful if absorbed into the skin. Causes skin irritation.

Eye irritation:

Hydroxylamine HCl: Material is extremely destructive to tissue of the eyes.

Sodium Acetate: Contact to eyes may cause irritation, redness and pain.

TRIS: Causes eye irritation.

Sensitization: No sensitizing effects known.

Target organs/systems: Not determined.

SECTION 12 – ECOLOGICAL INFORMATION

Toxicity: Further details: no data available

Persistence and degradability: Further details: no data available

Bioaccumulative potential: Partition coefficient: n-octanol/water: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment: no data available

General information: Do not allow to enter into ground-water, surface water or drains.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of in a manner consistent with federal, state, and local regulations.

SECTION 14 – TRANSPORT INFORMATION

DOT Class - Not restricted for transportation.

IMDG Class - Marine pollutant: No, not restricted for transportation.

ICAO/IATA Class - Not restricted for transportation.

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SECTION 15 – REGULATORY INFORMATION

SARA (Superfund Amendments and Reauthorization Act of 1986 – USA):

Section 302/304 (40CFR355.40): The product does not contain listed substances.

Section 313 (40CFR372.65): The product does not contain listed substances.

California Proposition 65 (USA)

Chemicals known to cause cancer: The product does not contain listed substances.

Chemicals known to cause female reproductive toxicity: None of the ingredients is listed.

Chemicals known to cause male reproductive toxicity: None of the ingredients is listed.

Chemicals known to cause developmental reproductive toxicity: None of the ingredients is listed.

Markings according to European guidelines: observe the general safety regulations when handling chemicals. The product does not require any hazard warnings according the respective European Community (EC) Directives.

SECTION 16 – OTHER INFORMATION

The information contained in this SDS is believed to be accurate and represents the best information currently available. Stanbio Laboratory makes no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should determine suitability of the information contained in SDS for their particular purpose.

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