

## MATERIAL SAFETY DATA SHEET

### I PRODUCT IDENTIFICATION AND USE

MANUFACTURER'S NAME: Diagnostic Chemicals Limited  
16 First St  
West Royalty Industrial Park  
Charlottetown, P.E.I.  
Canada C1E-1B0  
902-566-1396

CHEMICAL/PRODUCT NAME: **Serum Iron and Serum Iron Binding Capacity Assay kit**

CATALOGUE NUMBER: **150-26, 150-26R3**

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

PRODUCT DESCRIPTION: For the quantitative determination of iron.

### II HAZARDOUS INGREDIENTS (NE not established)

	<u>ACGIH TLV</u>	<u>CAS</u>
BINDING BUFFER REAGENT:		
Thiourea 1.8%	NE	62-56-6
Trishydroxymethylaminomethane 8.5%	NE	77-86-1
Triton-x-100 1%	NE	9036-19-5
ACID DISSOCIATING REAGENT: Thiourea 0.9%	NE	62-56-6
IRON STANDARD REAGENT: n.ap.		
ASCORBIC ACID: n.ap.		
IRON COLOUR REAGENT: n.ap.		

### III TOXICOLOGICAL PROPERTIES

ROUTE OF ENTRY/EXPOSURE

SKIN CONTACT: [x] EYE CONTACT: [x] INHALATION: [x]  
INGESTION: [x] SKIN ABSORPTION [ ]

#### **EFFECTS OF ACUTE EXPOSURE:**

ROUTE OF ENTRY/EXPOSURE

INHALATION: May cause irritation  
INGESTION: The Binding Buffer or the ADR is harmful if ingested. SKIN CONTACT: The Binding Buffer or the ADR may cause allergic skin eruptions and irritation  
EYE CONTACT: May cause irritation

CHRONIC EXPOSURE: Chronic administration of thiourea has caused liver tumours in rats.

EVIDENCE OF **CARCINOGENICITY**, TERATOGENICITY, REPRODUCTIVE TOXICITY, MUTAGENICITY: Thiourea is considered to be an animal carcinogen by NTP and IARC.

SENSITIZATION TO PRODUCT: Contact with thiourea may cause allergic skin eruptions.

SYNERGISTIC PRODUCTS: n.av.

LD50: Thiourea 125 mg/kg, oral rat.  
LD50: Triton-x-100 <5000 mg/kg, oral rat, < 3000 mg/kg skin-rabbit.  
LD50: Tris. 5900 mg/kg, oral rat.

### IV EMERGENCY AND FIRST AID MEASURES

SKIN: In case of contact, immediately flush area with plenty of water.

EYES: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.

ORAL: If ingested drink plenty of fluids and contact a physician.

INHALATION: If inhaled remove victim to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen, and call a physician.

### V PHYSICAL DATA

PHYSICAL STATE: All reagents except the ascorbic acid are liquids.  
APPEARANCE AND ODOUR: Binding buffer reagent: clear, colourless, soapy, odourless. Acid dissociating reagent; clear colourless, soapy with a vinegar odour. Iron colour reagent clear yellow odourless. Iron standard reagent; clear colourless and odourless. The ascorbic acid reagent is a white crystalline solid.  
ODOUR THRESHOLD: n.av.  
VAPOUR PRESSURE: n.av.  
VAPOUR DENSITY: n.av.  
SPECIFIC GRAVITY: n.av.  
EVAPORATION RATE: n.av.  
MELTING POINT: ascorbic acid 193° C  
BOILING POINT: n.av.  
SOLUBILITY IN WATER: All reagents are soluble in water.  
pH: ADR = 4.5, Binding Buffer, 8, Colour reagent, n.av, Iron standard, n.av, Ascorbic acid, n.av.  
COEFFICIENT OF OIL/WATER DISTRIBUTION: n.av.

## **VI FIRE AND EXPLOSION HAZARD DATA**

FLAMMABLE: No  
EXTINGUISHING MEDIA: As appropriate for fire in surrounding materials  
FLASH POINT: n.ap.  
UPPER FLAMMABLE LIMIT: n.ap.  
LOWER FLAMMABLE LIMIT: n.ap.  
AUTOIGNITION TEMPERATURE: n.ap.  
HAZARDOUS COMBUSTION PRODUCTS: n.av.

EXPLOSION DATA:  
SENSITIVITY TO MECHANICAL IMPACT: n.ap.  
SENSITIVITY TO STATIC DISCHARGE: n.ap.  
UNUSUAL FIRE AND EXPLOSION HAZARDS: Unknown

## **VII REACTIVITY DATA**

STABLE: Yes  
HAZARDOUS POLYMERIZATION: Will not occur  
INCOMPATIBILITY WITH OTHER SUBSTANCES: None known

HAZARDOUS DECOMPOSITION PRODUCTS: n.av.

## **VIII PREVENTIVE MEASURES**

LOCAL EXHAUST: Not required  
PROTECTIVE CLOTHING: Lab coat  
PROTECTIVE GLOVES: Rubber  
EYE PROTECTION: Safety glasses

OTHER PRECAUTIONS: Avoid contact and inhalation, do not get in eyes, on skin or clothing. Wash contaminated clothing before reuse.

RESPIRATORY PROTECTION: None normally required.

LEAK AND SPILL PROCEDURE: Absorb small leaks or spills with sponge, mop up large spills with plenty of soap and water.

WASTE DISPOSAL: Dilute with a large volume of water and dispose of into sewer system, in accordance with local regulations.

STORAGE REQUIREMENTS: 18-26°C

SHIPPING INFORMATION: Not regulated

## **IX PREPARATION OF THE M.S.D.S.**

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DATE: April 21, 1998

*\* n.av. not available n.ap. not applicable*

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