



**MATERIAL SAFETY DATA SHEET**

**I. PRODUCT IDENTIFICATION AND USE**

MANUFACTURER'S NAME: Diagnostic Chemicals Limited  
16 McCarville St.  
West Royalty Industrial Park  
Charlottetown, P.E.I.  
Canada C1E 2A6  
902-566-1396

CHEMICAL/PRODUCT NAME: **Total Iron-PC (Protein Clearing)**

CATALOGUE NUMBER: **102-15, 102-25**

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)

Reagent R1 Acid dissociating reagent: 0.4% Thiourea  
Reagent 1a Acid dissociating diluent

**ACGIH TLV**

NE  
n.ap.

**CAS**

62-56-6  
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:**

**SKIN CONTACT:** May cause irritation.

**EYE CONTACT:** May cause irritation.

INGESTION: Harmful if ingested.

INHALATION: May cause irritation.

**EFFECTS OF CHRONIC EXPOSURE:** Repeated or prolonged exposure to Reagent 1 (Thiourea) may cause allergic skin eruptions and irritation. 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: n.av.

SYNERGISTIC PRODUCTS: n.av.  
LD<sub>50</sub>: **Thiourea 125 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: R1, and 1a are liquids  
APPEARANCE AND ODOUR: R1 and 1a are clear and colourless  
ODOUR THRESHOLD: n.av.  
VAPOUR PRESSURE: n.av.  
VAPOUR DENSITY: n.av.  
SPECIFIC GRAVITY: n.av.  
EVAPORATION RATE: n.av.  
MELTING POINT: n.av.  
BOILING POINT: n.av.  
SOLUBILITY IN WATER: Soluble  
pH: R1=1.28, 1a=1.42  
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: n.av.  
HAZARDOUS DECOMPOSITION PRODUCTS: n.av.

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## **VIII PREVENTIVE MEASURES**

LOCAL EXHAUST: Not required

PROTECTIVE CLOTHING: Lab coat

PROTECTIVE GLOVES: Rubber nitrile or other impermeable gloves

EYE PROTECTION: Safety glasses with side shields

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

RESPIRATORY PROTECTION: None normally required with reagents. Raw material: thiourea - use respirator.

LEAK AND SPILL PROCEDURE: Absorb small leaks or spills with sponge, mop up large spills with plenty of soap and water. Dispose of in accordance with all local, provincial, federal, or state regulations.

WASTE DISPOSAL: Dispose of in accordance with all local, provincial, federal, or state regulations.

STORAGE REQUIREMENTS: Room temperature.

**SHIPPING INFORMATION: Not regulated**

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

PREPARED BY: John Gabriel

PHONE NO: 902-566-1396

DATE: May 5, 2006

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

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, DCL makes no warranty in respect to any of the information disclosed. Observe all federal, provincial, state and local laws concerning health and pollution.

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