

MATERIAL SAFETY DATA SHEET

I PRODUCT IDENTIFICATION AND USE

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

CHEMICAL/PRODUCT NAME: **Acid Dissociating Reagent**

CATALOGUE NUMBER: **150-26E, 150-26E-91R1**

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>
ACID DISSOCIATING REAGENT:		
Thiourea 0.9% w/v	NE	62-56-6
Sodium Hydroxide 1.7% w/v	C 2 mg/m ³	1310-73-2
Ascorbic acid: 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 ADR is harmful if ingested.

SKIN CONTACT: 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. Target organs (thiourea): lungs, liver, thyroid, bone marrow, blood.

EVIDENCE OF **CARCINOGENICITY**, TERATOGENICITY, **REPRODUCTIVE TOXICITY**, **MUTAGENICITY**: Thiourea may be a carcinogen based on animal studies: NTP - suspect carcinogen, OSHA - Possible Select Carcinogen, and IARC - Group 2B Carcinogen (animal). Thiourea has caused adverse reproductive and fetal effects in animals. Lab experiments with Thiourea have resulted in mutagenic effects.
Sodium Hydroxide: none known.

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

SYNERGISTIC PRODUCTS: n.av.

LD50: Thiourea 125 mg/kg, oral rat.
LD50: Sodium Hydroxide 40 mg/kg IPR-MUS

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: Acid dissociating reagent: liquid. Ascorbic acid: solid.
APPEARANCE AND ODOUR: Acid dissociating reagent; clear colourless, soapy with a vinegar odour. Ascorbic acid; white solid with no distinctive odour.
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: Soluble
pH: ADR = 4.5, 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: Recommended when working with thiourea and sodium hydroxide.

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, Room Temperature.

SHIPPING INFORMATION: Not regulated

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

PREPARED BY: Denise Bustard
PHONE NO: 902-566-1396
DATE: August 21, 2002

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

MSDS15026E-2