

# Material Safety Data Sheet

## 1 PRODUCT IDENTIFICATION AND USE

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PRODUCT NAME: Sorbitol Dehydrogenase Assay  
CATALOGUE NUMBER: 740-25, 740-10  
PRODUCT USE: For the IN VITRO quantitative determination of sorbitol dehydrogenase in serum. For veterinary use only.  
DATE OF MSDS PREPARATION: April 14, 2008  
MSDS PREPARED BY: John Gabriel  
EMERGENCY TELEPHONE NO.: 1- (902) 566-1396

## 2 COMPOSITION, INGREDIENT INFORMATION

<u>COMPONENT</u>	<u>CAS REGISTRY NUMBER</u>	<u>ACGIH TLV</u>
<b>NADH Reagent (R1):</b> Sodium azide 6.2 % w/w	26628-22-8	C 0.29 mg/m <sup>3</sup> (as sodium azide) C 0.11 ppm (as hydrazoic acid vapor)
<b>NADH Reagent Buffer (R1a):</b> Tris (hydroxymethyl) aminomethane 1.2 % w/w Chloroform 0.20 % v/v	77-86-1 67-66-3	not established 10 ppm TWA
<b>Fructose Reagent (R2)</b>	not applicable	not applicable

## 3 HAZARDOUS IDENTIFICATION

### EMERGENCY OVERVIEW:

NADH Reagent (R1) is Toxic by OSHA (US), WHMIS (Canada) and EU directives. NADH Reagent Buffer (R1a) is Toxic by OSHA and WHMIS. Physical and health hazard information on reagent mixtures has not been fully determined.

### POTENTIAL HEALTH EFFECTS:

ROUTE OF ENTRY/EXPOSURE: EYE CONTACT: [X] SKIN CONTACT: [X] INHALATION: [X] INGESTION: [X]  
SKIN ABSORPTION: [X]

### EFFECTS OF ACUTE EXPOSURE TO PRODUCTS:

EYES: May cause irritation.  
SKIN: May cause irritation.  
INHALATION: May cause irritation to mucous membranes and upper respiratory tract.  
INGESTION: May be harmful if ingested.

### EFFECTS OF CHRONIC EXPOSURE TO PRODUCT:

Chloroform is reasonably anticipated to be a human carcinogen by NTP, possibly carcinogenic to humans by IARC and is a carcinogen by the state of California Proposition 65. No human data on teratogenicity, embryo toxicity or mutagenicity.

#### **4 FIRST AID MEASURES**

EYES: Flush eyes with water for at least 15 minutes and obtain medical attention.  
SKIN: In case of contact, immediately flush area with plenty of water. If irritation continues seek medical attention.  
INHALATION: If inhaled, remove victim to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen and obtain medical attention.  
INGESTION: If ingested, drink plenty of fluids and obtain medical attention.

#### **5 FIRE AND EXPLOSION HAZARDS**

FLAMMABLE: No  
FLASH POINT: not available  
FLAMMABLE LIMITS (% in Air): Lower: not available. Upper: not available  
EXTINGUISHING MEDIA: As appropriate for fires in surrounding materials.  
FIREFIGHTING: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.  
AUTOIGNITION TEMPERATURE: not available  
HAZARDOUS COMBUSTION PRODUCTS: not available  
EXPLOSION DATA: Sensitivity to mechanical impact: not available. Sensitivity to static discharge: not available

#### **6 ACCIDENTAL RELEASE MEASURES**

PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL: Ventilate the area. Wear appropriate personal protective equipment as specified in Section 8. Contain and recover liquid when possible. Collect liquid in an appropriate container or absorb with an inert material and place in waste container. Wash surrounding area. Dispose of spilled and contaminated material in accordance with federal, provincial, state, and local regulations.

#### **7 HANDLING AND STORAGE**

HANDLING PROCEDURES AND EQUIPMENT: Avoid contact. Do not get in eyes, on skin, or clothing. Wash thoroughly after handling. Wash contaminated clothing before reuse.

STORAGE REQUIREMENTS: 2-8 °C

INCOMPATIBILITIES: Acids

HAZARDOUS DECOMPOSITION PRODUCTS: Hydrazoic Acid Vapor

#### **8 EXPOSURE CONTROLS, PERSONAL PROTECTION**

ENGINEERING CONTROLS: Local exhaust not required under normal circumstances.  
PERSONAL PROTECTIVE CLOTHING (PPE): Safety glasses with side-shields, lab coat, rubber nitrile or other impermeable gloves.  
RESPIRATORY PROTECTION: none required.  
EXPOSURE LIMITS: not available

#### **9 PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE: R1 is a lyophilized powder. R1a and R2 are liquids.  
APPEARANCE: R1 is a white powder. R1a and R2 are clear and colorless.  
ODOUR THRESHOLD: not available  
ODOUR: R1 and R2 are odorless. R1a is mild of chloroform.  
MELTING POINT: not available  
BOILING POINT: not available  
SPECIFIC GRAVITY: R1=not available; R1a=1.010; R2=1.012  
VAPOUR PRESSURE: not available  
VAPOUR DENSITY: not available  
WATER SOLUBILITY: soluble  
EVAPORATION RATE: not available  
pH at 25 °C: R1=not available; R1a=7.5; R2=5.4  
COEFFICIENT OF OIL/WATER DISTRIBUTION: not available

#### **10 STABILITY AND REACTIVITY**

STABILITY: Stable  
POSSIBLE HAZARDOUS REACTIONS/CONDITIONS: not available  
CONDITIONS TO AVOID: not available  
MATERIALS TO AVOID: not available  
HAZARDOUS DECOMPOSITION PRODUCTS: not available.

## **11 TOXICOLOGICAL INFORMATION**

Sodium azide  
LD50 oral rat-27mg/kg  
LC50 inhalation rat-37 mg/m3  
LD50 dermal rat-50mg/kg

Chloroform  
LD50 oral rat-908 mg/kg  
LC50 inhalation rat-4h-47702 mg/m3  
LD50 dermal rabbit->20000 mg/kg

SENSITIZATION TO PRODUCT: not available  
NAME OF TOXICOLOGICALLY SYNERGISTIC PRODUCTS: not available  
IRRITANCY OF PRODUCT: not available

## **12 ECOLOGICAL INFORMATION**

Dangerous for the environment.

## **13 DISPOSAL CONSIDERATIONS**

RECOMMENDATION FOR DISPOSAL OF UNUSED PRODUCT: R1 contains Sodium Azide which may accumulate on lead and copper plumbing, forming an explosive metal azide complex. If drain disposed, dilute and flush with a copious amount of running water to prevent azide build up. Observe all federal, provincial, state and local regulations.

RECOMMENDATION FOR DISPOSAL OF PACKAGING: Observe all federal, provincial, state and local regulations.

## **14 TRANSPORT INFORMATION**

SPECIAL SHIPPING INFORMATION:

UN3316, Chemical kit, Class 9, PG II

## **15 REGULATORY INFORMATION**

Canada: This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulation (CPR) and the MSDS contains all the information required by the CPR. WHMIS Classification R1 - D1A; R1a - D1B, D2A, D2B

RISK PHRASES: R25 Toxic if swallowed.  
R32 Contact with acids liberates toxic gas.  
R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

SAFETY PHRASES: S35 This material and its container must be disposed of in a safe way.  
S45 In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).  
S61 Avoid release to the environment. Refer to special instructions/safety data sheets.

## **16 OTHER INFORMATION**

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, Genzyme Diagnostics PEI Inc. makes no warranty in respect to any of the information disclosed. Observe all federal, provincial, state and local laws concerning health and the environment.

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