

# Material Safety Data Sheet

## Glucose (Hexokinase)

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Glucose (HK)

**Catalog Numbers:** TR15003, TR15004, TR15015, 1520-200A, 1520-500, BU1501-BP, UV1501xxxx-BP, VC1501xxxx, VT1501xxxx

**Use:** This reagent is intended for the in vitro quantitative determination of glucose in human serum, plasma or urine on both manual and automated systems.

THERMO ELECTRON  
189 - 199 Browns Rd  
NOBLE PARK VIC 3174  
AUSTRALIA  
Tel: +61 3 9790 4100  
Fax: +61 3 9790 4155  
E-mail: [info.clinicalchemistry@thermo.com](mailto:info.clinicalchemistry@thermo.com)

THERMO ELECTRON  
331 South 104<sup>th</sup> Street  
LOUISVILLE, CO 80027  
U.S.A  
Tel: (303) 581 6428  
Fax: (303) 581 6429  
E-mail: [info.clinicalchemistry@thermo.com](mailto:info.clinicalchemistry@thermo.com)

#### Contact Point

Australia  
Quality Assurance Manager:  
Tel: +61 3 9790 4100  
Mon – Fri 9:00am to 5:00pm

U.S.A  
Chemtel  
24 Hour Emergency Assistance  
1-800-255-3924

### 2. HAZARD IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO EU CRITERIA

**Hazard Classification:** HAZARDOUS SUBSTANCE, NON DANGEROUS GOODS.

**Hazard Category:** Harmful

#### RISK PHRASES

R22 Harmful if swallowed.

#### SAFETY PHRASES

S28 After contact with skin, wash immediately with plenty of water and soap.

**Poison Schedule:** None allocated.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
SODIUM AZIDE	0.1 - 0.3 %	26628-22-8
OTHER NON-HAZARDOUS SUBSTANCES	Balance	Mixture

All other ingredients determined not to be hazardous according to the EU criteria.

### 4. FIRST AID MEASURES

#### Swallowed:

If swallowed, **DO NOT** induce vomiting. Give 1 to 2 glasses of water to drink. Seek immediate medical assistance.

#### Eye:

If material is splashed into eyes, immediately, flush with plenty of water for 15 minutes, ensuring eye lids are held open. If irritation persists transport to hospital or doctor.

#### Skin:

If material is splashed onto the skin, remove any contaminated clothing and wash skin thoroughly with soap and water. If irritation persists transport to hospital or doctor.

#### Inhaled:

Move victim to fresh air. Apply resuscitation if victim is not breathing.

# Material Safety Data Sheet

## Glucose (Hexokinase)

### 4. FIRST AID MEASURES (continued)

**First Aid Facilities:**

Eye wash fountain, safety shower and normal wash room facilities.

**Advice to Doctor:**

Treat symptomatically.

In case of poisoning, contact Poisons Information Centre

**In Australia call Tel: 131126**

**In New Zealand Tel: 034747000**

### 5. FIRE-FIGHTING MEASURES

**Fire/Explosion Hazard**

If safe to do so, move undamaged containers from fire area.

**Hazardous Decomposition Products:** Decomposes on heating emitting oxides of carbon and oxides of nitrogen.

**Fire Fighting Procedures:** Fire fighters to wear Self-contained breathing apparatus (SCBA) in confined spaces, in oxygen deficient atmospheres or if exposed to products of decomposition. Full protective clothing is also recommended.

**Extinguishing Media:** Use extinguishing media suitable for surrounding fire situation.

**Flammability**

This material is not a flammable or combustible solid.

### 6. ACCIDENTAL RELEASE MEASURES

Avoid generating dusts. Wear suitable protective equipment. Ventilate area. If possible wet area down to prevent high dust levels. If available, use dustless methods, such as a HEPA vacuum and filter. Otherwise, use a non-sparking shovel and place into a suitably labeled container for later disposal. Do not dry sweep.

### 7. HANDLING AND STORAGE

Store in a cool place and out of direct sunlight. Store away from strong acids. Keep containers closed, when not using the product. Store at 2-8°C and the reagent will be stable until the expiry date stated on the bottle and kit box labels.

Store in original packages as approved by manufacturer.

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure Standards**

No exposure standards are available for this product, however, the following exposure standards have been assigned by the National Occupational Health & Safety Commission (NOHSC) to the following component of the product:

**SODIUM AZIDE**

(Worksafe Australia)

[TWA]0.11 ppm 0.3 mg/m<sup>3</sup>

[STEL]Peak limitation

**References: H**

**Peak Limitation:** For some rapidly acting substances and irritants, the averaging of the airborne concentration over an eight hour period is inappropriate. These substances may induce acute effects after relatively brief exposure to high concentrations and so the exposure standard for these substances represents a maximum or "peak concentration" to which workers may be exposed.

**Engineering Controls**

Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate unless the material is heated, reacted or otherwise changed in some type of chemical reaction, then the use of a local exhaust ventilation system is recommended.

**Personal Protection Equipment**

**GLOVES:** PVC or natural rubber.

# Material Safety Data Sheet

## Glucose (Hexokinase)

### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION (continued)

**EYES:** Chemical goggles or faceshield to protect eyes.

**RESPIRATORY PROTECTION:** Avoid breathing of dusts. Select and use respirators in accordance with AS/NZS 1715/1716. The use of a half-face organic vapour respirator is recommended. Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	White powder with no odour.
<b>Boiling Point:</b>	Not available.
<b>Freezing Point:</b>	Not available.
<b>Vapour Pressure:</b>	Not available.
<b>Specific Gravity:</b>	Not available.
<b>Flash Point:</b>	Not applicable.
<b>Flammability Limits:</b>	Not applicable.
<b>Solubility in Water:</b>	Completely miscible.

**Other Properties**

**pH:** 7.30 ± 0.1 @ 19 - 22°C (at use concentrations)

### 10. STABILITY AND REACTIVITY

**STABILITY:**

Stable under normal conditions of use.

**HAZARDOUS DECOMPOSITION PRODUCTS:**

Decomposes on heating emitting oxides of carbon and oxides of nitrogen.

**HAZARDOUS POLYMERIZATION:**

Will not occur.

**INCOMPATIBILITIES:**

Strong mineral acids (sulfuric, nitric and hydrochloric).

**CONDITIONS TO AVOID:**

Incompatibles.

### 11. TOXICOLOGICAL INFORMATION

There is no toxicological information available for this product, however, for the ingredient:

**Sodium azide:**

Oral LD50(rat): 27 mg/kg

Dermal LD50(rabbit): 20 mg/kg

Oral LDLo(human): 143 mg/kg

**Systemic effects:** CNS disorders, cardiovascular failure, tachycardia, drop in blood pressure, coughing, dyspnoea, spasms, headache, dizziness, nausea, vomiting, collapse, unconsciousness.

**ACUTE HEALTH EFFECTS**

**Swallowed:**

Harmful if swallowed. Over exposure to sodium azide will include headache, nausea, blurred vision, dizziness, vomiting and low blood pressure. May cause irritation to mouth, throat and stomach.

**Eye:**

May cause irritation to the eyes, with effects including: tearing and blurred vision. These effects are anticipated to be of a short acting nature and no long term injury is anticipated, **if the product is removed promptly.**

# Material Safety Data Sheet

## Glucose (Hexokinase)

### 11. TOXICOLOGICAL INFORMATION (continued)

**Skin:**

May cause mild irritation to the skin, with effects including; Redness and itchiness.

**Inhaled:**

Dusts from the product may cause irritation to the nose, throat and respiratory system.

**Chronic:**

Prolonged or repeated skin contact may lead to skin rashes in some susceptible individuals. Prolonged or repeated exposure may lead to irreversible damage to health.

### 12. ECOLOGICAL INFORMATION

**Aquatic toxicity:** Data not available.

**Persistency:** Data not available.

**Biological oxygen demand (BOD):** Data not available.

**Food chain concentration potential:** Data not available.

Do not dispose of large quantities into waterways, drains or sewers.

### 13. DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor.

### 14. TRANSPORT INFORMATION

**UN Number:** None allocated

**Proper Shipping Name:** NONE ALLOCATED

**Dangerous Goods Class:** None allocated

**Subsidiary risk:** None allocated

**Packing Group:** None allocated

**Hazchem Code:** None allocated

**Road and Rail Transport:**

Not classified as a Dangerous Good according to the United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals.

**Air Transport:**

Not classified as a Dangerous Good according to the International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

**Marine Transport:**

Not classified as a Dangerous Good according to the International Maritime Organization Rules (Maritime Dangerous Goods Code - IMDG Code) for transport by sea.

### 15. REGULATORY INFORMATION

**Poison Schedule:** None allocated.

**Inventory Status:**

Australia (AICS)	Y
United States (TSCA)	Y
Canada (DSL)	Y
Europe (EINECS/ELINCS)	Y
Japan (MITI)	Y
South Korea (KECL)	Y

Y = all ingredients are on the inventory.

# Material Safety Data Sheet

## Glucose (Hexokinase)

### 16. OTHER INFORMATION

Issue date: July, 2004

#### Reasons for Update:

1. Alignment with the 2<sup>nd</sup> Edition of National Code of Practice for the Preparation of Material Safety Data Sheets [NOHSC:2001(2003).
2. Changes and /or addition made to all sections.

#### Key Legend Information:

NOHSC - National Occupational Health & Safety Commission [Aust]

TWA - Time Weighted Average [Int]

STEL - Short Term Exposure Limit [Int]

AICS - Australian Inventory of Chemical Substances

EPA - Environmental Protection Agency [Int]

NIOSH - National Institute for Occupational Safety and Health [US]

AS/NZS 1715 - Selection, use and maintenance of respiratory protective devices. [Aust]

AS/NZS 1716 - Respiratory protective devices. [Aust]

IATA - International Aviation Transport Authority [Int]

ICAO - International Civil Aviation Organization

IMO - International Maritime Organisation. [Int]

IMDG - International Maritime Dangerous Goods

United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labelling of Chemicals. [Int]

EU - European Union

[Aust/NZ] = Australian/New Zealand

[Int] = International

[US] = United States of America

#### Principal References:

Information supplied by manufacturer, reference sources including the public domain.

#### Disclaimer

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions which are available on request.

© 2004 Thermo Electron Corporation. All rights reserved

License granted to make unlimited paper copies for internal use only.

**END OF MSDS**