

# Material Safety Data Sheet

## Acid Phosphatase

### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Acid Phosphatase

**Catalog Numbers:** TR27010, TR27015

**Use:** This reagent is intended for the in vitro quantitative determination of total and prostatic acid phosphatase in human serum on both manual and automated systems.

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#### Contact Point

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1-800-255-3924

### 2. HAZARD IDENTIFICATION

CLASSIFIED AS HAZARDOUS ACCORDING TO EU CRITERIA

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

#### Hazard Category:

**Acid Phosphatase (A) : Irritant**

**Acid Phosphatase (B) and (C): None allocated**

#### RISK PHRASES

R41 Risk of serious damage to eyes.

#### SAFETY PHRASES

S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

**Poison Schedule:** None allocated

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME	Proportion	CAS Number
Acid Phosphatase (A)		
CITRIC ACID	10 to 20 %	5949-29-1

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

#### Acid Phosphatase (B) and (C)

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

### 4. FIRST AID MEASURES

#### Swallowed:

##### Acid Phosphatase (A)

If swallowed, **DO NOT** induce vomiting. Give 3 to 4 glasses of water to drink. If irritation persists transport to hospital or doctor.

##### Acid Phosphatase (B) and (C)

If swallowed, and if more than 15 minutes from a hospital, **induce vomiting**, preferably using Ipecac Syrup APF.

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### 4. FIRST AID MEASURES (continued)

**Eye:**

If dust or liquid enters the eyes, flush with plenty of water for at least 15 minutes, ensuring eye lids are held open. If irritation persists, immediately transport to hospital or doctor.

**Skin:**

If dust is falls 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 - If trained personnel available administer oxygen if breathing is difficult.

**First Aid Facilities:**

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

**Advice to Doctor:**

Treat symptomatically.

### 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 combustible or flammable solid.

### 6. ACCIDENTAL RELEASE MEASURES

**Acid Phosphatase(A):**

This product is a powder, under appropriate conditions dusts may be generated. Wear suitable protective equipment in these circumstances. Ventilate area. If possible wet area down to prevent high dust levels. If spill occurs, 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.** Remainder of material on floor can be neutralized by cautiously adding sodium bicarbonate or soda ash. There may be mild foaming/effervescence, when this ceases place into above labeled container.

**Acid Phosphatase (B)**

Avoid generating dusts. If appropriate and safe, wet area down to prevent high dust levels. Wear protective clothing, goggles and protective PVC or neoprene gloves.

If spillage occurs in a confined space wear suitable dust mask.

Isolate leaking containers and transfer contents to suitably labeled container for re-use or disposal.

**Suitable containers include:** Polyethylene, PVC, polyethylene lined mild steel, stainless steel or paper, plastic or fabric bags.

**Acid Phosphatase (C):**

Walk cautiously. Ventilate area. Wear protective equipment to prevent skin and eye contact, as outlined under personal protection in this MSDS. If large quantities of this product have spilt, then bund area using sand or soil - to prevent run off into drains and waterways. Place absorbent (soil, sand, vermiculite or other inert material) onto spill. Collect and seal in properly labeled containers for disposal. For small spills (less than 1 L) flush to drain with large quantities of water.

### 7. HANDLING AND STORAGE

Avoid generating dusts. Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition.

Store away from oxidizing agents. Keep containers closed, when not using the product. When stored at 2 - 8°C the reagent is stable until the expiration date stated on the bottle and kit box label. Store in original packages as approved by manufacturer.

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### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

#### Exposure Standards

No exposure standards are available for this product, however, an overall exposure standard of 10 mg/m<sup>3</sup> be assigned based upon the nuisance dust potential.

#### Engineering Controls

Good industrial hygiene practice requires that employee exposure be maintained below the recommended exposure standards. This is preferably achieved through the provision of adequate ventilation where necessary. Where dust cannot be controlled in this way, personal respiratory protection should be employed.

#### Personal Protection Equipment

**GLOVES:** PVC or natural rubber.

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

**RESPIRATORY PROTECTION:** Avoid breathing of dusts. The use of a respirator is not normally required, however, if high dust levels are present, then the use of a suitable dust mask or half-face respirator with a P1 filter is recommended. All respirators must comply with AS/NZS 1715 and AS/NZS 1716.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

#### Acid Phosphatase (A):

**Appearance:** White free flowing powder with no odour.  
**Boiling Point:** Not available.  
**Vapour Pressure:** Not available.

**Specific Gravity:** Not available.  
**Flash Point:** Not applicable.  
**Flammability Limits:** Not applicable.  
**Solubility in Water:** Completely soluble.

#### Other Properties

**pH:** 5.30 ± 0.10

#### Acid Phosphatase (B):

**Appearance:** White powder.  
**Boiling Point:** Not available.  
**Melting Point:** Not available.  
**Vapour Pressure:** Not available.  
**Specific Gravity:** ~ 1.80  
**Flash Point:** Not applicable.  
**Flammability Limits:** Not applicable.  
**Solubility in Water:** ~ 30 g per 100 g of water @ 10°C

#### Other Properties

**Volatile Organic Compounds:** Not available.

#### Acid Phosphatase (C):

**Appearance:** Clear colourless liquid with mild odour.  
**Boiling Point:** Not available.  
**Melting Point:** Not available.  
**Vapour Pressure:** Not available.  
**Specific Gravity:** Not available.  
**Flash Point:** Not applicable.  
**Flammability Limits:** Not applicable.  
**Solubility in Water:** Soluble.

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### 9. PHYSICAL AND CHEMICAL PROPERTIES (continued)

#### Other Properties

<b>pH:</b>	5.00 ± 0.10
<b>Vapor Density (Air = 1):</b>	Not available.
<b>Evaporation Rate (BuAc = 1):</b>	Not available.
<b>Volatile Organic Compounds:</b>	Not available.

### 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:

##### Acid Phosphatase (A)

Strong alkalis and oxidizing agents.

##### Acid Phosphatase (B) and (C)

Strong oxidizing agents.

#### CONDITIONS TO AVOID:

Incompatibles.

### 11. TOXICOLOGICAL INFORMATION

#### Acid Phosphatase (A):

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

##### Citric acid:

Oral LD50(rat): 3,000 mg/kg

Standard Draize test (rabbit) eye severe reaction.

#### Acid Phosphatase (B) and (C)

There is no toxicological information available for this product, the following is expected:

Oral LD50(rat): > 5,000 mg/kg

Dermal LD50(rabbit): > 5,000 mg/kg

#### ACUTE HEALTH EFFECTS

##### Swallowed:

May cause irritation to mouth, throat and stomach with effects including mucous build up, irritation to the tongue and lips and pains in the stomach, which may lead to nausea, vomiting and diarrhoea.

##### Eye:

Will cause severe irritation to the eyes with effects including: tearing, pain, corneal opacity and blurred vision. If prompt action is not taken permanent eye damage may occur.

##### Skin:

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

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### 11. TOXICOLOGICAL INFORMATION (continued)

**Inhaled:**

Dusts from the product may cause irritation to the nose, throat and respiratory system with effects including: Cough, discomfort, difficulty breathing and shortness of breath.

**Chronic:**

High concentrations of citric acid has shown to cause severe conjunctival reaction and ulceration of the cornea, resulting in extensive adherent leukoma. Frequent or excessive intake of citric acid may cause erosion of teeth and local irritation. This same effect also occurs with lemon juice, which contains about 7 % citric acid.

### 12. ECOLOGICAL INFORMATION

Under present EU legislation Acid Phosphatase does not meet the criteria of being considered an environmental hazard. Large quantities however, should not be discharged to waterways, drains or sewers.

### 13. DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Normally suitable for disposal by approved waste disposal agent.

### 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

**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

**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.

### 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:**

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### 16. OTHER INFORMATION (continued)

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

IM 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.

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**END OF MSDS**