Not classified as Hazardous according to criteria of Worksafe Australia
Not classified as Hazardous according to Occupational Safety and Health Administration's (OSHA)
Communication Standard, 29 CFR 1910.1200

ALKALINE PHOSPHATASE AMP

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

 THERMO TRACE LTD
 THERMO DMA

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 331 South 104 th Street

189 - 199 Browns Rd LOUISVILLE, CO 80027

NOBLE PARK VIC 3174 U.S.A

AUSTRALIA

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E-mail: trace@thermotrace.com.au E-mail: inquiries@thermodma.com

Product Name: ALKALINE PHOSPHATASE AMP BUFFER (IFCC)

Catalog Numbers: TR11103, TR11104, TR11110, TR11115, 1140-200, 1140-500

Use: This reagent is intended for the in vitro quantitative determination of ALP (Orthophosphoric - Monoester

Phosphohydrolase, Alkaline Optimum, EC 3.1.3.1) in human serum or plasma.

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 Poison Schedule: None allocated

Contact Point

AustraliaU.S.AQuality Assurance Manager:Chemtel

Tel: +61 3 9790 4100 24 Hour Emergency Assistance

Mon – Fri 9:00am to 5:00pm 1-800-255-3924

2. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME Proportion CAS Number

All ingredients determined not to be hazardous according to the criteria of Worksafe Australia and OSHA Communication Standard 29 CFR 1910.1200

3. HAZARD IDENTIFICATION

Not Classified as hazardous according to the criteria of Worksafe Australia and OSHA Communication Standard 29 CFR 1910.1200

Hazard Category: None allocated

ACUTE HEALTH EFFECTS

Swallowed:

Swallowing or drinking large quantities 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:

May cause mechanical irritation to the eyes, with effects including: tearing, pain, stinging and blurred vision. These effects are anticipated to be of a short-acting nature and no long term injury is envisaged.

Skin:

May cause mild irritation to the skin.

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3. HAZARD IDENTIFICATION (Cont)

Inhaled:

Alkaline Phosphatase AMP

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

Alkaline Phosphatase B (AMP Buffer Solution)

If the product is heated, the mists generated from this product may cause irritation to the mouth, throat and upper respiratory system.

Chronic:

Prolonged or repeated exposure is not anticipated to cause any undue harm.

4. FIRST AID MEASURES

Swallowed

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

Eve:

Alkaline Phosphatase AMP

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

Alkaline Phosphatase B (AMP Buffer Solution)

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

Skin:

Alkaline Phosphatase AMP

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.

Alkaline Phosphatase B (AMP Buffer Solution)

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 - 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, oxides of phosphorus and water.

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.

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5. FIRE-FIGHTING MEASURES (Cont)

Flammability:

Alkaline Phosphatase AMP

This product is considered to be combustible. Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source may lead to a potential dust explosion.

Alkaline Phosphatase B (AMP Buffer Solution)

This material is not a combustible or flammable liquid.

6. ACCIDENTAL RELEASE MEASURES

Alkaline Phosphatase AMP

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 can be picked up and re-cycled or disposed.

Alkaline Phosphatase B (AMP Buffer Solution)

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

Store away from sources of heat or ignition. Store away from oxidizing agents, strong acids and alkalis. Keep containers closed, when not using the product. When stored @ 2 - 8°C reagent is stable until the expiration date stated on the vial and kit box label. Store in original packages as approved by manufacturer.

Alkaline Phosphatase AMP

Avoid generating dusts.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards

No exposure standards are available for this product, however, for nuisance dusts not otherwise specified an exposure standard of 10 mg/m^3 has been assigned by the National Occupational Health & Safety Commission (NOHSC):

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.

E Personal Protection Equipment

GLOVES: Not normally required, however, if handling large quantities the use of natural rubber is recommended. **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.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Alkaline Phosphatase AMP

Alkaline Phosphatase B (AMP Buffer Solution)

Appearance: White free flowing powder Colourless liquid with a mild odour.

Boiling Point: Not available. Not available. **Vapour Pressure:** Not available. Not available. **Specific Gravity:** Not available. Not available. **Flash Point:** Not available. > 150°C Flammability Limits: Not available. Not available. Solubility in Water: Completely soluble. Completely soluble.

Other Properties

pH: Not available. $10.70 \pm 0.05 \ @ 19-21^{\circ}C$

Vapor Density (Air = 1): Evaporation Rate (BuAc = 1): Not available. Volatile Organic Compounds:Not available.

10. STABILITY AND REACTIVITY

STABILITY:

Stable under normal conditions of use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Alkaline Phosphatase AMP

Decomposes on heating emitting oxides of carbon, oxides of phosphorus and water.

Alkaline Phosphatase B (AMP Buffer Solution)

Decomposes on heating emitting elemental oxides, oxides of nitrogen and phosphorus.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

Alkaline Phosphatase AMP

Strong acids, alkalis and oxidizing agents.

Alkaline Phosphatase B (AMP Buffer Solution)

Strong oxidizing agents and alkalis.

CONDITIONS TO AVOID:

Incompatibles.

11. TOXICOLOGICAL INFORMATION

There is no toxicological information available for this product, however, based upon similar products, it is estimated that:

Alkaline Phosphatase AMP

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

Alkaline Phosphatase B (AMP Buffer Solution)

Oral LD50(rat): > 2,000 mg/kg Dermal LD50(rabbit): > 2,000 mg/kg

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12. ECOLOGICAL INFORMATION

This product is not anticipated to cause an environmental hazard. However, large quantities should not be discharged to sewers or waterways.

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 Hazchem Code: None allocated

Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) 6th Edition.

15. REGULATORY INFORMATION

Poison Schedule: None allocated

RISK PHRASES None allocated

SAFETY PHRASES

Alkaline Phosphatase AMP

S24/25 Avoid contact with skin and eyes.

Alkaline Phosphatase B (AMP Buffer Solution)

S23 Do not breathe mist.

16. OTHER INFORMATION

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.

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