

## Material Safety Data Sheet

Name of manufacturer : Central Kagaku Co.

Address : 23-14 Hongo 3-Chome Bunkyo-ku,  
Tokyo 113-0033 Japan

Telephone number : (03)3812-9186

Facsimile number : (03)3814-7538

MSDS No.———

Date : 2003.10.23.

Product name : Catalase for Hydrogen peroxide measurement with ORITECTOR

### Composition/Information on ingredients

Substance/Mixture : Mixture

Chemical name : hydrogen-peroxide oxidoreductase

Ingredients and Composition :

Enzyme

Ammonium Phosphate 10%

di-Ammonium Hydrogen Phosphate 2%

Chemical formula :

Ammonium Phosphate  $\text{NH}_4\text{H}_2\text{PO}_4$

di-Ammonium Hydrogen Phosphate  $(\text{NH}_4)_2\text{HPO}_4$

CAS registry number :

Enzyme Not available

Ammonium Phosphate 7722-76-1

di-Ammonium Hydrogen Phosphate 7783-28-0

UN class : Not available

### Hazards Identification

Not applicable

### Health hazard data

Health effects (Acute and Chronic) :

The toxicological effects of this product have not been thoroughly investigated at this time.

Acute effects of overexposure :

Swallowing : Diarrhea

Skin absorption : Will not be absorbed

Inhalation : Coughing

Skin contact : No effect

Eye contact : Congestion

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#### First aid measures

Eyes contact : Immediately flush the contaminated eye(s) with large amounts of fresh water for at least 15 minutes. Get medical attention if the eye(s) remains irritated

Skin contact : While removing contaminated clothing, flush the contaminated body area with large amounts of fresh water for at least 15 minutes. Do not reuse clothing until after they have been washed. Get medical attention if the case involves persistent irritation and/or bodily injury.

Ingestion : Drink water and dilute. Keep victim warm and calm. Obtain immediate medical assistance.

Inhalation : Remove to fresh air. If breathing stops, administer artificial respiration.

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#### Fire fighting measures

Flash point : Not available

Flammable limits in air, % by volume

Lower : Not available      Upper : Not available

Extinguishing media : Water, CO<sub>2</sub>, Chemical foam,  
use media as appropriate for site specific conditions.

Special fire fighting procedures : Will not be needed.

Unusual fire and explosion hazardous : Not hazardous

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#### Accidental release measures

Steps to be taken if material is released or spilled : Not-available

Waste disposal method : Same as usual waste

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#### Handling and storage

Keep product cool and dry.

Store in a sealed condition.

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Exposure control / Protective equipment

Ventilation data : Not-available

Respiratory protection : Not-available

Protective gloves : Not-available

Other protective equipment : Not-available

Other engineering controls : Not-available

Work Practices : Not-available

Hygienic practices :

Use good laboratory technique when handling this product. Wash hands after working with this product.

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Physical and chemical properties

Appearance and odor : yellow-brown suspension with odor

Boiling point : Not-available

Freezing point : Not-available

Specific gravity (H<sub>2</sub>O=1) : Not-available

Vapor pressure at 20°C : Not-available

Vapor density (atm.=1) : Not-available

Solubility in water, % by wt. : approx. 10%

Percent volatiles by volume : Not-available

Evaporation rate (Butyl acetate=1) : Not-available

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Stability / Reactivity

Chemical stability : Not-available

Condition to avoid : Not-available

Reactivity / Incompatibility(Materials to avoid) : Not-available

Hazardous polymerization : Not-available

Hazardous decomposition products : Not-available

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Toxicological information

The toxicological effects of this product have not been thoroughly investigated at this time.

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Ecological information

Not-available

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Disposal consideration

Waste disposal method : Same as usual waste

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Transport information

Keep product cool and dry.

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Regulatory information

Not-available

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References

Material Safety Data Sheets of ingredients