

**Safety Data Sheet (SDS)**

Created: December 15 2022

(First Edition)

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Name	Measure CKMB (Reagent 1)
Company name, address and phone number	UMA Co., Ltd 2-19-6, Yokosuka, Matsudo, Chiba-ken, 2700-0031, JAPAN
Emergency number	Phone: (+81) 47-710-4871 FAX: (+81) 47-710-4872
Recommended usage and restrictions in usage	For the measurement of Creatine Kinase – MB Isozyme <i>in vitro</i> Never use other instruments than UMA Co. Ltd designated instruments.





**2. SUMMARY OF HAZARDS****GHS Classification**

- Hazardous substance: Sodium Azide 0.03 mol/L

**Classification of the substance or mixture**

Acute toxicity – Oral	Category 2
Acute toxicity – Dermal	Category 1
Skin corrosion/irritation	Category 1C
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1
Aquatic environment (acute hazard)	Category 1
Aquatic environment (long-term hazard)	Category 1

**Pictograms**

			
Corrosive	Health Hazard	Acute Toxicity	Environment Hazard

**Hazard statements**

- H314 - Causes severe skin burns and eye damage
- H318 - Causes serious eye damage
- H300 - Fatal if swallowed H310 - Fatal in contact with skin
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- H370 - Causes damage to the following organs: cardiovascular system, central nervous system, lung, systemic toxicity
- H372 - Causes damage to the following organs through prolonged or repeated exposure cardiovascular system, central nervous system, liver

**Precautionary statements - (Prevention)**

- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection
- Do not eat, drink or smoke when using this product
- Avoid release to the environment

**Precautionary statements - (Response)**

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER or doctor/physician

- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with wash contaminated clothing before reuse.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

**Precautionary statements - (Storage)**

- Store locked up.

**Precautionary statements - (Disposal)**

- Dispose of contents/container to an approved waste disposal plant.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance or Mixture:	Mixture	
	<ul style="list-style-type: none"> <li>• Imidazole (CAS: 288-32-4) buffer pH 6.7</li> <li>• NaDP – K (CAS: 1184-16-3)</li> <li>• ADP – 2Na (CAS: 16178-48-6)</li> <li>• AMP – 2Na (CAS: 13474-03-8)</li> <li>• Glucose (CAS: 50-99-7)</li> <li>• NaN<sub>3</sub> (CAS: 26628-22-8)</li> <li>• HK (EC: 3.3.2.1)</li> <li>• G-6-PDH (EC: 1.1.1.49)</li> <li>• Creatine Kinase MM (CKMM) recombinant Human Type</li> </ul>	<p>135 mmol/L</p> <p>12.7 mmol/L</p> <p>4.8 mmol/L</p> <p>8.6 mmol/L</p> <p>27.1 mmol/L</p> <p>0.03 mol/L</p> <p>5 U/mL</p> <p>3 U/mL</p>

**4. FIRST AID MEASURES**

Inhalation	Remove to fresh air. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**5. FIRE FIGHTING MEASURES**

Extinguishing Media	There is no fear of ignition and combustion.
Extinguishing Media Not to be Used	No information
Special Firefighting Method	No information
Specific Hazards	No information
Protection of Firefighters	Firefighting is done from the windward, avoid steam, the inhalation of smoke. Wear personal protective equipment.

**6. ACCIDENTAL RELEASE MEASURES**

Precautions for Human health, Protective Equipment and Emergency Measures	During work, wear protective equipment.
Environmental Precautions	Leakage has been the product is discharged into river and the like, be careful not to cause damage to the environment.
Recovery/Neutralization	The leaked liquid is recovered as much as possible, and the rest will be incinerated by absorbing cloth, in rag and the like. Not be recoverable liquid, wash away thoroughly diluted with plenty of water.

---

## 7. PRECAUTION IN HANDLING AND STORAGE

### Handling

Technical Measures	Wear protective equipment to avoid contact with eyes, skin and clothing.
Precautions	Avoid accidentally swallowing. Wash thoroughly your hands and face after handling. Tumble the container, do not handle it roughly, such as dropping it or applying an impact.
Precautions for safe handling	Do not eat or drink when using. Avoid contact with skin, eyes and nose. Wash thoroughly your hands and face after handling.

### Storage

Storage conditions	Avoiding storing in direct sunlight and fire condition.
--------------------	---

---

## 8. EXPOSURE CONTROLS AND PROTECTION MEASURES

Facility measure	Not set
Control concentration	Not set
Exposure Equipment	Not set
Equipment measures	Install a hand-washing facility nearby and clearly display its location.
Protective Equipment	
Respiratory Protection	Protective Mask
Hand Protection	Protective Glove
Eyes Protection	Protective Goggles
Skin and Body Protection	Protective Boots, Protective Clothing, Rubber Apron as need

---

## 9. PHYSICAL AND CHEMICAL PROPERTY

Physical state	Liquid
Color	Colorness clear liquid
Smell	Slightly characteristics odor
Melting point/freezing point	No data
Boiling point or initial boiling point and boiling point range	No data
Flammable	Nonflammable
Lower explosive limit/upper explosive limit	Not applicable
Flash point	Nonflammable
Spontaneous ignition point	Not applicable
Decomposition temperature	Not applicable
pH	No data
Kinematic viscosity	No data
Evaporation rate	No data
Solubility	Easily soluble in water
Vapour pressure	No data
Density or relative density	No data
Relative gas density	No data
Particle characteristics	Not applicable

---

---

## 10. STABILITY AND REACTIVITY

Chemical stability	Stable in normal handling
Reactivity	Non-reactive under normal handling
Possibility of dangerous adverse reactions	
Dangerous polymerization	No dangerous polymerization reaction occurs
Condition to avoid	Freeze, heat, sunlight
Dangerous substances to touch	Nothing in particular
Hazardous decomposition product	Strong oxidizers, acids, bases, heavy metals

---

## 11. TOXICOLOGICAL INFORMATION

**There is no data as product (the following information is reported with contained ingredients)**

**Hazardous substance 1: Sodium Hydroxyde**

Acute Toxicity (larva)	No data
Skin Corrosion and Irritation	Same as above
Severe Eye Damage and Eye Irritation	Same as above
Specific target organ toxicity (single exposure)	Same as above

---

## 12. ENVIRONMENT HAZARDS

No data as product

---

## 13. DISPOSAL CONSIDERATIONS

Residual Wastes	When discharging, dilute with a large amount of water and discharge
Contaminated Container and Package	Container should be cleaned and recycled, or property disposed of in accordance with relevant regulations and local government standards. When disposing of empty containers, completely remove residues retained in the containers.

---

## 14. TRANSPORT CONSIDERATIONS

International rules	None
Domestic rules	None
Specific safety measures and conditions for transportation	Avoid direct sunlight and transport at 2 – 8°C. Avoid falling, dropping, and sideways to prevent collapse of the load.

---

## 15. APPLICABLE LAWS AND REGULATIONS

Poisonous and Detelerious Substitution Control Law	N/A
Occupational Safety and Health Act	N/A
Act on Promotion of Control of Chemical Substance Emissions Management	N/A
Other hydro pollution control method	N/A
Pharmaceutical Affairs Law	In Vitro Diagnosis

---

---

**16. OTHER INFORMATION**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lose profit or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

---

**Safety Data Sheet (SDS)**

Created: December 15 2022

(First Edition)

**1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION**

Product Name	Measure CKMB (Reagent 2)
Company name, address and phone number	UMA Co., Ltd 2-19-6, Yokosuka, Matsudo, Chiba-ken, 2700-0031, JAPAN
Emergency number	Phone: (+81) 47-710-4871 FAX: (+81) 47-710-4872
Recommended usage and restrictions in usage	For the measurement of Creatine Kinase – MB Isozyme <i>in vitro</i> Never use other instruments than UMA Co. Ltd designated instruments.





**2. SUMMARY OF HAZARDS****GHS Classification**

- Hazardous substance: Sodium Azide 0.0375 %w/w

**Classification of the substance or mixture**

Acute toxicity – Oral	Category 2
Acute toxicity – Dermal	Category 1
Skin corrosion/irritation	Category 1C
Serious eye damage/eye irritation	Category 1
Specific target organ toxicity (single exposure)	Category 1
Specific target organ toxicity (repeated exposure)	Category 1
Aquatic environment (acute hazard)	Category 1
Aquatic environment (long-term hazard)	Category 1

**Pictograms**

			
Corrosive	Health Hazard	Acute Toxicity	Environment Hazard

**Hazard statements**

- H314 - Causes severe skin burns and eye damage
- H318 - Causes serious eye damage
- H300 - Fatal if swallowed H310 - Fatal in contact with skin
- H400 - Very toxic to aquatic life
- H410 - Very toxic to aquatic life with long lasting effects
- H370 - Causes damage to the following organs: cardiovascular system, central nervous system, lung, systemic toxicity
- H372 - Causes damage to the following organs through prolonged or repeated exposure cardiovascular system, central nervous system, liver

**Precautionary statements - (Prevention)**

- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection
- Do not eat, drink or smoke when using this product
- Avoid release to the environment

**Precautionary statements - (Response)**

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- Immediately call a POISON CENTER or doctor/physician

- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with wash contaminated clothing before reuse.
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- IF SWALLOWED: Rinse mouth. DO NOT induce vomiting.

**Precautionary statements - (Storage)**

- Store locked up.

**Precautionary statements - (Disposal)**

- Dispose of contents/container to an approved waste disposal plant.

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Pure substance or Mixture:	Mixture	
	• Creatine Phosphate Sodium Salt (CAS: 922-32-7)	76 mmol/L
	• NaN <sub>3</sub> (CAS: 22628-22-8)	0.0375 %w/w

**4. FIRST AID MEASURES**

Inhalation	Remove to fresh air. If symptoms persist, call a physician.
Skin contact	Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.
Eye contact	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.
Ingestion	Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**5. FIRE FIGHTING MEASURES**

Extinguishing Media	There is no fear of ignition and combustion.
Extinguishing Media Not to be Used	No information
Special Firefighting Method	No information
Specific Hazards	No information
Protection of Firefighters	Firefighting is done from the windward, avoid steam, the inhalation of smoke. Wear personal protective equipment.

**6. ACCIDENTAL RELEASE MEASURES**

Precautions for Human health, Protective Equipment and Emergency Measures	During work, wear protective equipment.
Environmental Precautions	Leakage has been the product is discharged into river and the like, be careful not to cause damage to the environment.
Recovery/Neutralization	The leaked liquid is recovered as much as possible, and the rest will be incinerated by absorbing cloth, in rag and the like. Not be recoverable liquid, wash away thoroughly diluted with plenty of water.

**7. PRECAUTION IN HANDLING AND STORAGE****Handling**

Technical Measures	Wear protective equipment to avoid contact with eyes, skin and clothing.
Precautions	Avoid accidentally swallowing. Wash thoroughly your hands and face after handling. Tumble the container, do not handle it roughly, such as dropping it or applying an impact.

---

Precautions for safe handling	Do not eat or drink when using. Avoid contact with skin, eyes and nose. Wash thoroughly your hands and face after handling.
-------------------------------	---

**Storage**

Storage conditions	Avoiding storing in direct sunlight and fire condition.
--------------------	---

---

**8. EXPOSURE CONTROLS AND PROTECTION MEASURES**

Facility measure	Not set
Control concentration	Not set
Exposure Equipment	Not set
Equipment measures	Install a hand-washing facility nearby and clearly display its location.
Protective Equipment	
Respiratory Protection	Protective Mask
Hand Protection	Protective Glove
Eyes Protection	Protective Goggles
Skin and Body Protection	Protective Boots, Protective Clothing, Rubber Apron as need

---

**9. PHYSICAL AND CHEMICAL PROPERTY**

Physical state	Liquid
Color	Slightly turbid, yellowish brown liquid
Smell	Slightly alcohol odor
Melting point/freezing point	No data
Boiling point or initial boiling point and boiling point range	No data
Flammable	Nonflammable
Lower explosive limit/upper explosive limit	Not applicable
Flash point	Nonflammable
Spontaneous ignition point	Not applicable
Decomposition temperature	Not applicable
pH	No data
Kinematic viscosity	No data
Evaporation rate	No data
Solubility	Easily soluble in water
Vapour pressure	No data
Density or relative density	No data
Relative gas density	No data
Particle characteristics	Not applicable

---



---

## 10. STABILITY AND REACTIVITY

Chemical stability	Stable in normal handling
Reactivity	Non-reactive under normal handling
Possibility of dangerous adverse reactions	
Dangerous polymerization	No dangerous polymerization reaction occurs
Condition to avoid	Freeze, heat, sunlight
Dangerous substances to touch	Nothing in particular
Hazardous decomposition product	Strong oxidizers, acids, bases, heavy metals

---

## 11. TOXICOLOGICAL INFORMATION

**There is no data as product (the following information is reported with contained ingredients)**

**Hazardous substance 1: Sodium Hydroxyde**

Acute Toxicity (larva)	No data
Skin Corrosion and Irritation	Same as above
Severe Eye Damage and Eye Irritation	Same as above
Specific target organ toxicity (single exposure)	Same as above

---

## 12. ENVIRONMENT HAZARDS

No data as product

---

## 13. DISPOSAL CONSIDERATIONS

Residual Wastes	When discharging, dilute with a large amount of water and discharge
Contaminated Container and Package	Container should be cleaned and recycled, or property disposed of in accordance with relevant regulations and local government standards. When disposing of empty containers, completely remove residues retained in the containers.

---

## 14. TRANSPORT CONSIDERATIONS

International rules	None
Domestic rules	None
Specific safety measures and conditions for transportation	Avoid direct sunlight and transport at 2 – 8°C. Avoid falling, dropping, and sideways to prevent collapse of the load.

---

## 15. APPLICABLE LAWS AND REGULATIONS

Poisonous and Detelerious Substitution Control Law	N/A
Occupational Safety and Health Act	N/A
Act on Promotion of Control of Chemical Substance Emissions Management	N/A
Other hydro pollution control method	N/A
Pharmaceutical Affairs Law	In Vitro Diagnosis

---

---

**16. OTHER INFORMATION**

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lose profit or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.

---