

SAFETY DATA SHEET

1. IDENTIFICATION OF PRODUCT AND SUPPLIER

Product name: **MEASURE GGT R-1,R-2**

Manufacturer's name: **UMA Co., Ltd.**

2-19-6, Yokosuka, Matsudo, Chiba, 270-0031, Japan
TEL +81-47-710-4871
Fax: +81-47-710-4872

2. CHEMICAL CHARACTERIZATION / INFORMATION ON INGREDIENTS

R-1; Tris CAS 77-86-1

Glycylglycine 2.7% , CAS 556-50-3

NaCl, 0.5%

Bioace 0.01%

R-2; L- γ -glutamyl-3-carboxy-4-nitroanilide 0.08% (GLUPA-C) CAS 7300-59-6

MES 0.4%

Proclin300 0.02%

Bioace 0.06%

3. HAZARDS IDENTIFICATION

ROUTE OF ENTRY/EXPOSURE

SKIN CONTACT: [x] EYE CONTACT: [x] INHALATION: [x] INGESTION: [x] SKIN ABSORPTION [x]

Effects of acute exposure:

SKIN CONTACT: May cause irritation.

EYE CONTACT: May cause irritation.

INGESTION: May be harmful if ingested.

INHALATION: May cause irritation to mucous membranes and upper respiratory tract.

Effects of chronic exposure: No data available.

SENSITIZATION TO PRODUCT: Not Available

SYNERGISTIC PRODUCTS: Not Available

LD50: MOPSO: Not Available

4. FIRST AID MEASURES

SKIN: In case of contact, immediately flush area with plenty of water.

EYES: Immediately flush eyes with plenty of water for at least 15 minutes and get medical attention.

ORAL: If ingested drink plenty of fluids and contact a physician.

INHALATION: If inhaled move victim to fresh air. If not breathing give artificial respiration. If breathing is difficult give oxygen, and call physician.

5. FIGHTING MEASURES

FIRE

Flammable: NO

Extinguishing media: As appropriate for fire in surrounding materials.

Flash point: Not Applicable

Upper flammable limit: Not Applicable

Lower flammable limit: Not Applicable

Autoignition temperature: Not Applicable

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Hazardous combustion products: No data

Explosion data

Sensitivity to mechanical impact: Not Applicable

Sensitivity to static discharge: Not Applicable

Unusual fire and explosion hazards: No Data

6. ACCIDENTAL RELEASE MEASURES

Local exhaust: Not Required
Protective clothing: Lab Coat
Protective gloves: Rubber/Latex
Eye protection: Safety glasses
Other precautions: Avoid contact and inhalation, do not get in eyes, on skin or clothing. Do not pipet by mouth. Wash contaminated clothing before reuse.
Respiratory protection: None normally required.
Handling: Normal precautions for handling chemicals must be observed.
Storage: Store between +2°C and +8°C
Shipping regulations: Not regulated

7. Handling

Handling: Normal precautions for handling chemicals must be observed.
Storage: Store between +2°C and +8°C
shipping regulations: Not regulated

8. EXPOSURE CONTROLS / PERSONNEL PROTECTION

See 6.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Reagent is provided as a stable liquid.
Appearance and odor: The R1 reagent is clear and colorless. . The R2 reagent is slight yellow in color.
Odor threshold: Not Available
Vapor pressure: Not Available
Vapor density: Not Available
Specific gravity: Not Available
Evaporation rate: Not Available
Melting point: Not Available
Boiling point: Not Available
Solubility in water: Not Applicable
pH: R -1: 8.10 R-2 : 6.0
Coefficient of oil/water distribution: Not Available

10. STABILITY AND REACTIVITY

Stable: Yes
Hazardous polymerization: Will not occur.
Incompatibility with other substances: No
Hazardous decomposition products: Not Available

11. TOXICOLOGICAL INFORMATION

See 3.

12. ECOLOGICAL INFORMATION

Water Hazard Class: Data not yet available.

13. DISPOSAL CONSIDERATIONS

Waste disposal: Dilute with large volumes of water and dispose of into sewer system, in accordance with local regulations.

14. TRANSPORT INFORMATION

Shipping information: Not regulated

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15. REGULATORY INFORMATION

Not applicable.

16. OTHER INFORMATION