



UNITECH SCIENTIFIC LLC

LMA UniFlex Reagent

SDS LMA-F

SAFETY DATA SHEET (HCS - 29 CFR 1910.1200(g))

1. CHEMICAL IDENTIFICATION and COMPANY CONTACT INFORMATION

Product trade name: L-Malic Acid UniFlex Reagent
Flex ML Buffer
Flex NAD Solution, NAD
Flex GOT Enzyme, L-aspartate Transaminase
Flex MDH Enzyme, Malate Dehydrogenase
Standards, Malic Acid

Supplier: Unitech Scientific LLC
12026 Centralia Rd, Ste H
Hawaiian Gardens, CA 90715, USA

Product No. : LMA-F

Field of Application: Food analysis

Date of Issue: 12-2002

Date of Revision: 01 Aug 2015

Information, Operations: 562 924-5150

Information in case of Emergency: 562 924-5150

2. HAZARD IDENTIFICATION

Based on the concentrations in the composition, this is not a hazardous product in terms of directive 00/45/EC

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product described is a pure substance: no

Chemical Characterization: As below

(Dangerous) Components: None in the amounts used

Flex ML Buffer: Buffer Solution Contains no risk components

Flex NAD Solution: Contains no risk components

GOT & MDH Enzymes: Contains no risk components

LMA Standard Designation: Sodium azide Content<0.1% Kb 1: T+ Kb 2: N Kb 3: N/A
CAS-No.: 26628-22-8 Risk reg. comp.: 28-32-50/53

4. FIRST AID MEASURES

Symptoms: No symptoms expected

If inhaled: Remove to fresh air

In case of skin contact: Flush with copious amount of water

In case of contact with eyes: Flush with copious amount of water while separating the eyelids with fingers. If irritations appear and persist, call a physician

If swallowed: Flush with copious amount of water. Call a physician

5. FIRE FIGHTING

Extinguishing media: Water, CO₂, foam, powder

6. SPILLAGE, ACCIDENTAL RELEASE

Personal precautions: Avoid swallowing; do not store together with food

Environmental precautions: Avoid release into sewers

Procedures for clean-up/absorption: Sweep up with cellulose and hold for waste disposal

7. HANDLING AND STORAGE

Handling: No special requirements

Storage: Dry. At +2°C to +10° C

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Threshold value for maintenance of industrial health and safety standards: Application of minimum protective standards is mandatory

Personal protection: Protection wear according to national laboratory regulations are sufficient for personal safety (coat, safety goggles, shoes, disposable (latex) gloves. Wash hands after finishing work.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: ML Buffer Glycylglycine, clear liquid
NAD, clear liquid
GOT & MDH Enzymes, clear or opalescent liquid solutions/suspensions

Color: ML Buffer and NAD, colorless
GOT Enzyme, yellow; MDH Enzyme, colorless

Odor: no data available

pH: Glycylglycine-buffer: 10.0; others not determined

Boiling point/-range, Vapor pressure, Relative density: not determined

Flammability: not flammable
 Explosive Properties: not explosive
 Solubility in water: water soluble

10. STABILITY AND REACTIVITY

Avoidable conditions & substances, Dangerous decomposition products: nothing known
 Further declarations: none

11. TOXICOLOGICAL INFORMATION

Toxicity data: Sodium azide (toxicological determining component)
 TDLo (oral, men): 0.71mg/kg
 TD50 (oral, rat): 27 mg/kg
 LD50 (dermal, rabbit): 20 mg/kg

Further toxicological effects statement: The components in the preparation are used in such low concentrations that with proper handling and use, no toxicological effects are expected.

12. ECOLOGICAL INFORMATION

Ecotoxicological effects: Quantitative data of the ecological impact of this composition are not known
 Biological degradability: Not known
 Biological effects: Sodium azide: Azides are toxic for water organisms
 Fish: Lepomis macrochirus toxic from 1.5 ppm in 24 hrs
 Acute ca. toxicity for invertebrates: 5 mg/L
 Acute toxicity for cold blooded animals: 1 mg/L

Referring to this data, especially the presence of sodium azide (present concentration in this product is <0.1% in standard), this component should not get into environmental waters, sewage or soil. Quantities present pose a minor hazard. In case of accidental release flush or dilute with copious amounts of water.

13. DISPOSAL CONSIDERATIONS

Product: There are no uniform regulations for disposal of chemicals within the HCS. Contact a licensed professional waste disposal service for disposal of this material. Observe all federal, state and local environmental regulations.
 Packaging: Dispose according to the regulations of the public authorities. Contaminated packaging has to be treated like the composition. If not otherwise regulated by public authorities, non-contaminated packaging can be treated like household waste or brought to recycling procedures.

14. TRANSPORT INFORMATION

Land transport: GGVS, GGVE, ADR, RID
 class, designation: ---
 Inland ship transport: AND, ADNR
 class: ---
 Ocean shipping transport: IMDG, GGVSee
 class, EmS, MFAG, designation: ---
 Air transport: ICAO, IATA
 class, designation: ---

This product is not subject to current regulations for transportation of hazardous goods (GGVS/ADR, GGVE/RID, IMDG, IATA/ICAO).

15. REGULATORY INFORMATION

Indication following HCS directives:
 Symbols, risk regulations, safety regulations: ---

Note: This product must be labeled in accordance with HCS - 29 CFR 1910.1200(g).

16. OTHER INFORMATION

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