

Magnesium LiquiColor®

SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Identification: Magnesium LiquiColor®
Ref No. 0130, 0130-225, 0130-430, etc.

Test kit contains Magnesium Reagent and Magnesium Standard.

Company Identification: Stanbio Laboratory
1261 North Main Street
Boerne, TX 78006

Telephone Number: (830) 249-0772
Website: <http://www.stanbio.com>

SECTION 2 – HAZARDS IDENTIFICATION

Routes of Exposure: Only when used as directed.

Classification system: In compliance with OSHA's Hazard Communication Standard (29CFR 1910.1200), a chemical mixture is considered hazardous if it contains 1.0% or more of a hazardous compound or 0.1% or more of a carcinogen. The product contains hazardous material(s) in excess of these amounts; therefore, precautions adequate for the pure form of the material(s) are presented here.

National Fire Protection Association (NFPA) ratings (scale 0-4):

Health=0
Fire=0
Reactivity=0

Hazard Overview

Health: Minimal risk if used as directed.

Fire: Not considered a fire hazard.

Reactivity: Magnesium Reagent contains Potassium Carbonate, Triton X-100 and Trizma Base. Minimal risk.

Special Hazards:

Potassium Carbonate: Hygroscopic (absorbs moisture from the air). Harmful if swallowed. Causes eye, skin, and respiratory tract irritation.

Triton X-100: Warning. Harmful if swallowed. Causes serious eye irritation.

Trizma Base: Warning. Causes skin irritation. Causes serious eye irritation. May cause respiration irritation.

Carcinogenicity information

OSHA (Occupational Safety and Health Administration): None of the ingredients is listed.

NTP (National Toxicology Program): None of the ingredients is listed.

IARC (International Agency for Research on Cancer): None of the ingredients is listed.

SECTION 3 – PRODUCT COMPOSITION

The test kit is composed of Magnesium Reagent and Magnesium Standard.

Magnesium LiquiColor®

Magnesium Reagent /0131 (The reagent contains by percentage the following amounts of chemicals)

| <u>Chemical Name</u> | <u>CAS No.</u> | <u>Concentration</u> |
|----------------------|----------------|----------------------|
| Potassium Carbonate | 584-08-7 | 1.06% |
| Triton X-100 | 9002-93-1 | 1.06% |
| Trizma Base | 77-86-1 | 2.42% |

Magnesium Standard /0137 (The reagent contains by percentage the following amounts of chemicals)

| <u>Chemical Name</u> | <u>CAS No.</u> | <u>Concentration</u> |
|---------------------------------|----------------|----------------------|
| None determined to be hazardous | | |

SECTION 4 – FIRST AID MEASURES**POTASSIUM CARBONATE**

- Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.
- Skin: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid.
- Ingestion: Get medical aid immediately. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water.
- Inhalation: Remove from exposure and move to fresh air immediately. If breathing is difficult, give oxygen. Get medical aid. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one way valve or other proper respiratory medical device.

TRITON X-100

- Inhalation: Move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
- Skin: Wash off with soap and plenty of water. Consult a physician.
- Eyes: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
- Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

TRIZMA BASE

- Ingestion: Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.
- Inhalation: Move to fresh air. Get medical attention if symptoms persist. If breathing stops, provide artificial respiration.
- Skin: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention if symptoms occur. Wash contaminated clothing before reuse. Destroy contaminated clothing and shoes.

Magnesium LiquiColor®

Eyes: Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention if symptoms persist.

SECTION 5 – FIRE FIGHTING MEASURES

POTASSIUM CARBONATE

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

TRITON X-100

Extinguishing media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture: Carbon oxides

Advice for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

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Extinguishing media: Water spray, dry chemical or carbon dioxide.

Special hazards arising from the substance or mixture: Dust may form explosive mixture with air.

During fire, gases hazardous to health may form.

Advice for firefighters: firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

POTASSIUM CARBONATE

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Avoid generating dusty conditions. Provide ventilation.

TRITON X-100

Methods and materials for containment and cleaning up: Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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Methods and materials for containment and cleaning up: Sweep up and place in a clearly labeled container for chemical waste. Avoid dust formation. Clean surface thoroughly to remove residual contamination. Dike far ahead of larger spills for later disposal.

Environmental precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid discharge into drains, water courses or onto the ground.

SECTION 7 – HANDLING AND STORAGE

POTASSIUM CARBONATE

Handling: Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Avoid ingestion and inhalation.

Magnesium LiquiColor®

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

TRITON X-100

Handling: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

Storage: Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

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Handling: Use personal protective equipment as required. Do not taste or swallow. Avoid conditions which create dust. Dust clouds may be explosive under certain conditions. DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Avoid inhalation of dust. Avoid contact with eyes, skin, and clothing. Use only with adequate ventilation. Wash hands thoroughly after handling.

Storage: Keep containers tightly closed. Keep in a cool, well-ventilated place. Store in a dry place.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

POTASSIUM CARBONATE

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described in OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirator: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

TRITON X-100

Contains no substances with occupational exposure limit values.

Exposure controls: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection: Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact

Magnesium LiquiColor®

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374. If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection: Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

TRIZMA BASE

None of the components have assigned exposure limits

Exposure controls: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. An eye wash and safety shower must be available in the immediate work area.

Personal protective equipment

Eye/face protection: Use tight fitting goggles if dust is generated.

Skin protection: Chemical resistant gloves. Wear appropriate clothing to prevent repeated or prolonged skin contact.

Respiratory protection: In case of inadequate ventilation use suitable respirator.

Hygiene measures: Provide eyewash station and safety shower. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Do not eat, drink or smoke when using the product. Wash contaminated clothing before reuse.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

POTASSIUM CARBONATE

Physical state: solid

Color: white

Odor: odorless

pH: 11.6 (10% aq soln)

Solubility in water: freely soluble

Magnesium LiquiColor®

Specific gravity/density: 2.43 @ 19°C

Molecular formula: K₂CO₃

Molecular weight: 138.21

TRITON X-100

Appearance Form: liquid, clear

Color: light yellow

Odor: no data available

Odor Threshold: no data available

pH: 9.7

Melting point/freezing point: 6 °C (43 °F)

Initial boiling point and boiling range: > 200 °C (> 392 °F)

Flash point: 251 °C (484 °F) - closed cup

Evaporation rate: no data available

Flammability (solid, gas): no data available

Upper/lower flammability or explosive limits: no data available

Vapor pressure: < 1.33 hPa (< 1.00 mmHg) at 20 °C (68 °F)

Vapor density: no data available

Relative density: 1.0700 g/cm³

Water solubility: soluble

Partition coefficient (n-octanol/water) no data available

Auto-ignition temperature: no data available

Decomposition temperature: no data available

Viscosity: no data available

Explosive properties: no data available

Oxidizing properties: no data available

TRIZMA BASE

Appearance: solid

Form: Crystals

Color: Colorless

Odor: slight characteristic odor

Odor Threshold: no data available

pH: 10.4 (0.1M aqueous solution)

Melting point/freezing point: 171°C

Initial boiling point and boiling range: 219°C (1.33 kPa)

Flash point: no data available

Evaporation rate: no data available

Flammability (solid, gas): no data available

Upper/lower flammability or explosive limits: no data available

Vapor pressure: no data available

Vapor density: no data available

Relative density: no data available

Magnesium LiquiColor®

Water solubility: soluble
Partition coefficient (n-octanol/water): no data available
Auto-ignition temperature: no data available
Decomposition temperature: no data available
Viscosity: no data available

SECTION 10 – STABILITY AND REACTIVITY

The product is considered stable. Under normal conditions of storage and use, hazardous decomposition and polymerization will not occur.

SECTION 11 – TOXICOLOGICAL INFORMATION

POTASSIUM CARBONATE

RTECS#: TS7750000
Oral, mouse LD50 = 2570 mg/kg.
Oral, rat LD50 = 1870 mg/kg
Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

TRITON X-100

Acute toxicity
LD50 Oral - rat - 1,800 mg/kg
Inhalation: no data available
LD50 Dermal - rabbit - 8,000 mg/kg
no data available
Skin corrosion/irritation: no data available
Serious eye damage/eye irritation
Eyes - rabbit
Result: Moderate eye irritation - 24 h
Respiratory or skin sensitization: no data available
Germ cell mutagenicity: no data available
Carcinogenicity
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity: no data available
Specific target organ toxicity - single exposure: no data available
Specific target organ toxicity - repeated exposure: no data available
Aspiration hazard: no data available
Additional Information

Magnesium LiquiColor®

RTECS: MD0907700

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

TRIZMA BASE

Acute toxicity

Oral LD50 - rat - 5,900 mg/kg

Dermal: no data available

Inhalation: no data available

Repeated dose toxicity: no data available

Skin corrosion/irritation: causes skin irritation

Serious eye damage/eye irritation: causes serious eye irritation

Respiratory or skin sensitization: not a skin sensitizer

Germ cell mutagenicity: no mutagenic components identified

Carcinogenicity: This substance has no evidence of carcinogenic properties.

IARC: No carcinogenic components identified

NTP: No carcinogenic components identified

OSHA: No carcinogenic components identified

Reproductive toxicity: no components toxic to reproduction

Specific target organ toxicity - single exposure: respiratory tract irritation

Specific target organ toxicity - repeated exposure: none known

Aspiration hazard: not classified

SECTION 12 – ECOLOGICAL INFORMATION

POTASSIUM CARBONATE

Do not empty into drains

TRITON X-100

Toxicity:

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 8.9 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates: EC50 - Daphnia - 26 mg/l - 48 h

Persistence and degradability:

Biodegradability Biotic/Aerobic Biochemical oxygen demand - Exposure time 28 d

Result: 36 % - Not readily biodegradable.

(Closed Bottle test)

Chemical Oxygen Demand (COD): 2.19 mg/g

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment: PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

TRIZMA BASE

Toxicity: No data available

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Persistence and degradability: the product is readily biodegradable

Bioaccumulative potential: no data available

Mobility in soil: the product is water soluble and may spread in water systems.

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

SECTION 13 – DISPOSAL CONSIDERATIONS

Do not dispose of in general waste. Disposal should be in accordance with applicable regional, national and local laws and regulations.

SECTION 14 – TRANSPORT INFORMATION

POTASSIUM CARBONATE

DOT (US): Not regulated

Canada TDG: Not regulated as a hazardous material

TRITON X-100

DOT (US)

UN number: 3082 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (p-tertiary-Octylphenoxy polyethyl alcohol)

Reportable Quantity (RQ):

Marine pollutant: Marine pollutant

Poison Inhalation Hazard: No

IMDG

UN number: 3082 Class: 9 Packing group: III EMS-No: F-A, S-F

Proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (p-tertiary-Octylphenoxy polyethyl alcohol)

Marine pollutant: No

IATA

UN number: 3082 Class: 9 Packing group: III

Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (p-tertiary-Octylphenoxy polyethyl alcohol)

TRIZMA BASE

DOT (US): not regulated

IMDG: not regulated

IATA: not regulated

SECTION 15 – REGULATORY INFORMATION

POTASSIUM CARBONATE

European Labeling in Accordance with EC Directives

Hazard Symbols: XN

Magnesium LiquiColor®

Risk Phrases: R 22 Harmful if swallowed.

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases: S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protections)

Canadian WHMIS Classifications: D1B, D2B

Is listed on Canada's DSL List.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by those regulations.

Is listed US Federal TSCA Inventory.

TRITON X-100

REACH No. : A registration number is not available for this substance as the substance or its uses are exempted from registration, the annual tonnage does not require a registration or the registration is envisaged for a later registration deadline.

SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

Acute Health Hazard

Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

Pennsylvania Right To Know Components

p-tertiary-Octylphenoxy polyethyl alcohol

CAS-No. Revision Date

9002-93-1

New Jersey Right To Know Components

p-tertiary-Octylphenoxy polyethyl alcohol

CAS-No. Revision Date

9002-93-1

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TRIZMA BASE

TSCA: None present or none present in regulated quantities.

CERLA: None present or none present in regulated quantities.

SARA 302: None present or none present in regulated quantities.

SARA 304: None present or none present in regulated quantities.

SARA 311/312 Hazards

TRIS – Threshold planning quantity: 500lbs

SARA 313: None present or none present in regulated quantities.

Massachusetts Right To Know Components

Magnesium LiquiColor®

No ingredient regulated by the Massachusetts Right to Know Act.

New Jersey Right To Know Components

No ingredient regulated by the New Jersey Right to Know Act.

Pennsylvania Right To Know Components

No ingredient regulated by the Pennsylvania Right to Know Act.

Rhode Island Right To Know Components

No ingredient regulated by the Rhode Island Right to Know Act.

Inventory status

| | |
|--|--|
| Australia AICS: | On or in compliance with the inventory |
| Canada DSL Inventory List: | On or in compliance with the inventory |
| EINECS, ELINCS or NLP: | On or in compliance with the inventory |
| Japan (ENCS) List: | On or in compliance with the inventory |
| China Inv. Existing Chemical Substances: | Not in compliance with the inventory. |
| Korea Existing Chemicals Inv. (KECI): | On or in compliance with the inventory |
| Canada NDSL Inventory: | Not in compliance with the inventory. |
| Philippines PICCS: | On or in compliance with the inventory |
| US TSCA Inventory: | On or in compliance with the inventory |
| New Zealand Inventory of Chemicals: | On or in compliance with the inventory |
| Japan ISHL Listing: | On or in compliance with the inventory |
| Japan Pharmacopoeia Listing: | Not in compliance with the inventory |

SECTION 16 – OTHER INFORMATION

The information contained in this SDS is believed to be accurate and represents the best information currently available. Stanbio Laboratory makes no warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should determine suitability of the information contained in SDS for their particular purpose.

In no way shall Stanbio Laboratory be liable for any claims, losses or damages resulting from using information contained in SDS.