

MATERIAL SAFETY DATA SHEET

--

Vet-A-Mix,
A Division of LLOYD, Inc.
Phone No. (712) 246-4000
Page 1 of 2

P.O. Box 130, Shenandoah, IA 51601-0130

Isotone SA
MSDS Date: 12/20/95 (Original)
6/28/06 (Revised)

Product Name: Isotone SA

1. INGREDIENTS: (% w/w), unless otherwise noted

| COMPONENT | CAS# | % | EXPOSURE LIMITS, ppm | |
|--------------------|-----------|------|-----------------------------------|--|
| | | | OSHA PEL | ACGIH TLV (mg/m ³) |
| Potassium Chloride | 7447-40-7 | 5.9 | 15 (Total) 5 (Respirable dust) | 10 (Total) |
| Citrate Acid | 77-92-9 | 3.6 | None | 5 (Respiratory Dust) --None Established-- |
| Sodium Chloride | 7647-14-5 | 12.2 | | --None Established-- |
| Glycine | 56-40-6 | 9.4 | | |

This document is prepared pursuant to the OSHA Hazard Communication Standard (29 CFR 1910.1200). Only those ingredients composing $\geq 1\%$ ($\geq 0.1\%$ for carcinogens or suspect carcinogens) of the formula (w/w) and which have hazards identified are listed.

2. PHYSICAL DATA:

APPEARANCE: White, water-soluble powder.
Other physical data have not been determined.

3. FIRE AND EXPLOSION HAZARD DATA:

This has not been evaluated.

EXTINGUISHING MEDIA: Water fog, alcohol foam, CO₂, dry chemical.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal degradation of glycine may produce nitrogen oxides and carbon monoxide or carbon dioxide. When subjected to very high temperatures, potassium chloride may release small amounts of chlorine gas.

4. REACTIVITY DATA:

This has not been evaluated. The product is expected to be stable under normal storage conditions; avoid strong oxidizers.

Potassium chloride has the following incompatibilities. Contact with hot nitric acid may cause evolution of toxic nitrosyl chloride. Contact with other strong acids may produce irritating hydrogen chloride gases. In presence of moisture may be mildly corrosive to metals. Avoid contact with bromine trifluoride and potassium permanganate plus sulfuric acid. Oxides of the contained metal and chlorine are hazardous decomposition products.

5. ENVIRONMENTAL AND DISPOSAL INFORMATION:

ACTION TO TAKE FOR SPILLS/LEAKS: Sweep up and dispose of in DOT-approved waste containers. Keep out of sewers, storm drains, surface waters and soil.

DISPOSAL METHOD: Dispose of contaminated product and materials used in cleaning up spills or leaks in a manner approved for this material. Consult appropriate federal, state and local regulatory agencies to ascertain proper disposal procedures.

MATERIAL SAFETY DATA SHEET

--

Vet-A-Mix,
A Division of LLOYD, Inc.
Phone No. (712) 246-4000
Page 2 of 2

P.O. Box 130, Shenandoah, IA 51601-0130

Isotone SA
MSDS Date: 12/20/95 (Original)
6/28/06 (Revised)

6. HEALTH HAZARD DATA:

EYE: This product is not expected to irritate the eyes under normal conditions of use.
SKIN CONTACT: This product is not expected to irritate the skin under normal conditions of use.
INGESTION: This has not been evaluated.
INHALATION: Inhalation exposure under normal conditions of use is not likely to cause adverse effects, however irritation may occur with prolonged excessive exposure to dust.

Potassium Chloride--May cause temporary eye irritation. May be irritating to skin of susceptible persons, particularly in cuts or open wounds. Repeated or prolonged contact may cause dermatitis. May be irritating to nose and throat upon inhalation. High concentrations of dust (up to 2000 mg/m³) may cause perforation of the nasal septum. Long term exposure to high concentrations could cause chronic cough and mild bronchitis. There is no evidence of permanent lung damage. Ingestion of a large amount may cause irritation of the gastrointestinal tract, cramps, diarrhea, tingling of hands or feet, weak pulse and circulatory disturbances. Oral LD50 (rat): 3020 mg/kg; Eye Irritation (rabbit): 500 mg/24 hr: Severe irritant. RTECS, 1982, cites a mutation reference.

Citrate Acid--Irritation to skin and eyes may occur from acute overexposure.

Sodium Chloride--Breathing dust may cause mild irritation to mucous membrane in nose and throat.

7. FIRST AID:

EYES: Immediately flush eyes with copious amounts of running water for 15 minutes.
SKIN: Wash with soap and water.
INGESTION: SEEK MEDICAL ATTENTION IMMEDIATELY. Treatment is by gastric lavage or emesis.
INHALATION: If a person has been exposed to excessive quantities of dust due to mishaps, move the person to fresh air. Give artificial respiration if not breathing.

Seek medical attention immediately if excessive exposure occurs.

8. HANDLING PRECAUTIONS:

There is no OSHA PEL or ACGIH TLV for this product. Under normal conditions of use, no special handling precautions are required in areas with adequate ventilation. However, under conditions of prolonged exposure in which quantities of dust are generated, mechanical ventilation, safety glasses with side shields, gloves and a NIOSH approved dust respirator are recommended.

SPECIAL PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Exercise reasonable care and caution.

REGULATORY INFORMATION: (Not meant to be all-inclusive--selected regulations represented.)

NOTICE: The information herein is presented in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ from one location to another; it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The following specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations. See MSDS for health and safety information.

U.S. REGULATIONS: SARA HAZARD CATEGORY: This product has been reviewed according to the federal EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to be exempt from reporting requirements. Nevertheless, potential reporters should check with their state emergency response

MATERIAL SAFETY DATA SHEET

--

**Vet-A-Mix,
A Division of LLOYD, Inc.**

Phone No. (712) 246-4000

Page 3 of 2

P.O. Box 130, Shenandoah, IA 51601-0130

Isotone SA

MSDS Date: 12/20/95 (Original)

6/28/06 (Revised)

commissions to determine if this product must be reported under applicable state requirements.