

MATERIAL SAFETY DATA SHEET

TechMix

MO' MILK(TM) FEED MIX

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MATERIAL NAME: Vitamin and/or Mineral Additives
Animal and Poultry Feed/Water
Additives containing hazardous ingredients exceeding 1%
of the total mixture.

MATERIAL IDENTIFICATION - INGREDIENTS

(Note: See the product label for specific ingredients.)
VITAMINS: A, B12, D3, E, K, Thiamine, Riboflavin, Niacin,
Pantothenic Acid, Pyridoxine, Folic Acid, Biotin,
Inositol.

MINERAL SALTS: Calcium, Cobalt, Copper Iron, Iodine,
Magnesium, Manganese, Potassium, Selenium, Sodium, Zinc.

MISCELLANEOUS: Choline Chloride, BHT, Ascorbic Acid,
Ethoxyquin, Rice Hulls, Dextrose, Salt, Lactose,
Fructose, Artificial Flavors, Coloring Agents, Citric
Acid, Dried Whey.

These products are animal feed additives accepted by the
FDA and produced under the requirements of 21 U.S.C. 301
et seq.

HEALTH HAZARD INFORMATION

OSHA PEL: 8 hr time average of 15 mg/m3 total dust - 5
mg/m3 respirable dust (from Table Z-3, 29 CFR 1910.1000)
One or more of the mineral ingredients in this additive
exceed one percent of the total mixture, and the entire
mixture must be classified as toxic according to 29 CFR
1910.1200 (d) (5) (ii). The reference texts indicate that
cobalt, copper, zinc and selenium salts may have oral
human lethal doses in the range of 50 to 500 mg/kg.
Ingestion of large doses of mineral salts usually causes
vomiting, but the acute effects are described as nausea,
chills and diarrhea. Eye or skin irritation may occur
following ingredient contact, and respiratory irritation
could be expected from the inhalation of additive dusts.
Vitamin ingredients are of low toxicity, and large doses
(15-30 grams) are required for acute vitamin toxicity to
occur. For employee training purposes, we have assigned
the cautionary keyword "WARNING" to these additives due
to the presence of hazardous ingredients in the mixture,
and employees using additives should be instructed to use
respiratory protection if dust is anticipated during use,
and to use other protective equipment as required by the
users process to minimize exposures. Employees should be
instructed to wash thoroughly after handling chemicals or
chemical mixtures.

FIRST AID:

INGESTION: Dilute with water or milk. Get medical
attention, (take the product label for identification.)

INHALATION: Move to fresh air. Restore breathing. Get
medical attention.

SKIN CONTACT: Wash from skin with soap and water. Get
medical attention for reddened skin.

EYE CONTACT: Flush eyes with water for at least 15
minutes. Get medical attention for irritation.

PHYSICAL DATA

(Note: See product label for specific information.)
Additives are mixtures of Vitamins and minerals in carriers
such as rice hulls, dextrose, and sodium.

FIRE, EXPLOSION AND REACTIVITY DATA

(Note: Temperature and limit data supplies is for grains
and grain mixtures.)

AUTOIGNITION TEMPERATURE: 350-500 Degrees F.

FLAMMABLE LIMITS:

LEL: Approx. 50 gr/m3 (0.050 oz/ft3)

UEL: Unknown

Additives are combustible but not flammable. (i.e.,
combustion generally requires the continuous application
of ignition to support flames.) The dispersal of organic
material into the atmosphere of a confined space in high
density (i.e., over 50 grams per cubic meter) could
produce dust mixtures that are ignitable or explosive.
EXTINGUISHING MEDIA: Determined by surrounding fire. Use
water, fog, foam, CO2 or dry chemical for extinguishment.
Additives are stable and will not polymerize. Additives
should be relatively unreactive with normal feed plant
process chemicals or products. Additives may produce
irritation or toxic combustion products when heated to
decomposition. Firefighters should wear self-contained
breathing apparatus and full protective equipment in fire
situations.

SPECIAL PROTECTION INFORMATION

Use a NIOSH approved particulate respirator if dust
generation occurs or is anticipated during product use.
Use other protective equipment as required by process or
additive addition conditions. Avoid product contact with
skin or eyes. Wash thoroughly after handling.

CAUTIONARY STATEMENTS FOR PERSONS HANDLING THESE PRODUCTS

WARNING - MAY BE HARMFUL IF SWALLOWED. DO NOT TAKE THIS
PRODUCT INTERNALLY. DO NOT BREATHE PRODUCT DUST.
Avoid contact with eyes, skin and clothing. Use with
adequate ventilation. Wash thoroughly after handling.
Keep away from children. Keep container closed. These
products are manufactured as animal and poultry feed and
water additives. They are not produced for human
consumption.

MATERIAL STORAGE INFORMATION

Store additives in a cool, dry place, away from sources of
high heat. Keep containers closed when not in use.

SPECIAL USE INFORMATION

TechMix, Inc. cannot predict the ultimate use of these
products, and can offer no special use information beyond
need for respiratory protection in dusty atmospheres,
cautioning about the fire or explosion hazards that are
created by the production of dense dust atmospheres when
ignited in confined spaces, and warning users against
entry into confined spaces such as mixers, storage bins
or tanks without the proper equipment, a watchman, and
permission of the users management.

Dust conditions in the users plant or process may require
the installation of Class II, Division I (dust ignition
proof) or Class II, Division 2 (dust tight) electrical
equipment to minimize the hazards of dust fires or
explosions. Articles 500 and 502 of the National
Electrical Code (NFPA 70) should be consulted for
specific requirements.

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SPILL, LEAK AND DISPOSAL PROCEDURES

Notify management of material spills. Product spills should be placed in recovery systems, or shoveled into closed containers for disposal.

DISPOSAL: Place spills in recovery systems, or place spilled material in an approved sanitary landfill or incinerator. Follow Federal, State and Local regulations for disposal.

HYGIENIC PRECAUTIONS, EMPLOYEE INSTRUCTION AND TRAINING

All employees who handle chemicals must follow good hygienic practices (i.e., wash frequently, and wear clean clothing).

All employees should be instructed to use protective equipment whenever atmospheric dust or chemical vapors are present.

All employees who may have occasion to use protective equipment should be trained in the use of that equipment.

All employees who may have occasion to enter confined spaces should be trained in confined space entry procedures.

INFORMATION PERTINENT TO THESE PRODUCTS

Vitamins and minerals are essential for health and growth, and the lack of certain vitamins and minerals in mammalian diets may produce deficiency diseases (such as rickets, scurvy and pellagra in humans). These additives are a dietary supplement containing the vitamins and minerals necessary for the growth and health of specific animal species that are added to animal feed and/or water during mixing and production by feed manufacturers. In form, these additives are analogous to the multiple vitamin and mineral supplements that are often taken by adults, or are prescribed by physicians for their children. Like similar human preparations, abuse is possible through overdosage, or by using a specific preparation for another purpose, such as using an adult preparation for children, or in the case of animal preparations, using a product that was prepared for dogs on chickens. Users of animal and poultry feed are cautioned to read the product label for species, dosage and withdrawal information, and to consult product literature, their veterinarian or a feed professional to resolve any questions about product usage.

SUPPLEMENTAL SOURCES OF DATA SHEET INFORMATION -  
DISCLAIMER OF LIABILITY

TechMix, Inc. has supplemented manufacturers data with information from other sources in order to provide our managers, employees and customers with adequate information on chemical hazards. The duty to inform users of all the hazards of a chemical is properly that of the manufacturer or distributor, and Tech Mix, Inc. expressly denies any liability in providing this supplemental handling for toxicological data to our managers, employees, or our customers.

The following information sources were used to prepare this data sheet:

- "Patty's Industrial Hygiene and Toxicology", 3rd Revised Edition, by Clayton and Clayton (Wiley-Interscience)
- "Clinical Toxicology of Commercial Products", 5th Edition, by Gosselin Smith & Hodge (Williams & Wilkins)
- "Dangerous Properties of Industrial Materials", 4th Edition, by N. Irving Sax (Van Nostrand Reinhold)

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