

TECHMIX, INC. MATERIAL SAFETY DATA SHEET

Manufacturer;
TECHMIX, INC.
5200 WEST 73RD ST
MINNEAPOLIS, MN 55435

Material Name
Medicated Vitamin and/or Mineral
Animal Feed Premixes
contains hazardous ingredients
exceeding 1% of the total mixture

*Blue Lite
Swine*

MATERIAL IDENTIFICATION -INGREDIENTS (Note: See product label for specific ingredients.)

MEDICATED VITAMIN and/or MINERAL ANIMAL FEED PREMIXES - Contains hazardous ingredients that exceed 1% of the total mixture.

These premixes may contain any or all of the following 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, Medications, Antibiotics

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 weighted 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 ingredients in this premix exceed 1% 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, selenium and zinc salts may have oral human lethal doses in the range of 50 to 500 mg/kg. Large dose ingestion 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 premix dusts. The antibiotic and vitamin ingredients are of low toxicity, and large doses (15 to 30 grams) are required for acute vitamin toxicity to occur. For employee training purposes, we have assigned the cautionary keyword 'WARNING' to these premixes due to the presence of hazardous ingredients in the mixture, and employees using premixes should be instructed to use respiratory protection if dust is anticipated during premix use, and to use such other protective equipment as is required by the users process to minimize exposures. All employees should be instructed to wash thoroughly after handling chemicals or chemical mixtures.

NOTE: PERSONS SENSITIVE TO ANTIBIOTIC ALLERGENS SUCH AS PENICILLIN SHOULD HANDLE THIS PRODUCT CAREFULLY.

- First Aid - Ingestion - Dilute with water or milk. Get medical attention. Take the product label for identification.)
- Inhalation - Remove to fresh air. Restore breathing. Get medical attention.
- Skin Contact - Wash from skin with soap and water. Get medical attention for reddened or irritated 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.)

Premixes are mixtures of vitamins and minerals in carriers such as rice hulls, dextrose, and sodium or calcium carbonate.

FIRE, EXPLOSION AND REACTIVITY DATA (Note: Temperature and limit data supplied is for grains and grain mixtures.)

Autoignition Temperature - 350-500 F. Flammable Limits - LEL - appx. 50 gr/m3
(0.050 oz/ft3) UEL - unknown

Premixes are combustibile 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 ignitible or explosive.

Extinguishing media. Determined by surrounding fire. Use water fog, foam, CO2 or dry chemical for extinguishment.

Premixes are stable and will not polymerize.

Premixes should be relatively unreactive with normal feed plant process chemicals or products.

Premixes may produce irritating or toxic combustion products when heated to decompositic

Firefighters should wear self-contained breathing apparatus and full protective equip-
men 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.

Persons sensitive to antibiotic allergens such as penicillin should handle this product carefully.

CAUTIONARY STATEMENTS FOR PERSONS HANDLING THESE PRODUCTS

WARNING - DO NOT TAKE THESE PRODUCTS INTERNALLY. MAY BE HARMFUL IF SWALLOWED. 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.

Persons sensitive to antibiotic allergens such as penicillin should handle this product carefully.

MATERIAL STORAGE INFORMATION

Store animal feed premixes in a cool, dry place, away from sources of high heat.

Protect containers from damage.

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 the 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 1 (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.

Spill, Leak and Disposal Procedures

Notify management of material spills.

Product spills should be placed in recovery systems, or be 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 premixes are a dietary supplement containing the vitamins and minerals necessary for the growth and health of specific animal species that is added to animal feed during mixing and production by feed manufacturers. Antibiotics are added to this mixture for disease prevention or control. In form, these premixes are analogous to the multiple vitamin and mineral supplements that are taken by adults or are prescribed by physicians for their children. Like similar human preparations, abuse is possible through overdose, 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 prepared for dogs on chickens. Animal feed premix users 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.

NOTE: PERSONS SENSITIVE TO ANTIBIOTIC ALLERGENS SUCH AS PENICILLIN SHOULD HANDLE THIS PRODUCT CAREFULLY.

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 of the hazards of a chemical is properly that of the manufacturer or distributor, and we expressly deny any liability in providing this supplemental handling or toxicological data to our managers, our 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 (VanNostrand Reinhold)