ZINPRO
PERFORMANCE MINERALS®

MATERIAL SAFETY DATA SHEET

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Availa® Plus

Livestock nutritional feed additive

Zinpro Corporation
10400 Viking Drive, Suite 240
Eden Prairie, MN 55344-7265

CHEMTREC PHONE: 800-424-9300
INFO PHONE: 952-944-2736

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Avoid exposure to all workplace chemicals. Obtain manufacturer's instructions before use. In case of accident or if you feel unwell, seek medical advice immediately and show the product label where possible.

ROUTES OF ENTRY: Ingestion, inhalation.

POTENTIAL HEALTH EFFECTS

EYES: May irritate eyes.
SKIN: May irritate skin.
INGESTION: May irritate mucous membranes.
INHALATION: Irritation of nose, mouth, and throat may occur.

ACUTE HEALTH HAZARDS: None

CHRONIC HEALTH HAZARDS: Breathing high levels of trace metals can cause irritation of your nose and throat and aggravate athsma. Ingesting high levels of copper can cause nausea, vomiting, and diarrhea. Very-high doses of copper can cause damage to your liver and kidneys. Inhaling or ingesting high levels of manganese can affect behavior and cause deterioration of motor skills. Ingesting high levels of zinc can cause stomach cramps, nausea, and vomiting. Very high doses of zinc can cause anemia and affect cholesterol levels. Very high doses of cobalt can cause damage to your liver and kidneys. Very high doses of iodine can produce hyperthyroidism.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: Respiratory problems, existing dermatitis

CARCINOGENICITY: The International Agency for Research on Cancer (IARC) has determined that cobalt and cobalt compounds are possibly carcinogenic to humans.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO.	% WT	SARA 313 REPORTABLE	OSHA PEL-TWA	ACGIH TLV-TWS
Copper amino acid complex	None	1.0% (as Cu)	Yes	Cu dust 1.0 mg/m^3	1.0 mg/m^3
Zinc amino acid complex	None	6 % (as Zn)	Yes	Zn dust 10.0 mg/m^3	5 mg/m^3
Manganese amino acid complex	None	2% (as Mn)	Yes	Mn Cmpds 5 mg/m^3	0.2 mg/m^3
Cobalt glucoheptonate	None	0.1% (as Co)	Yes	Co dust 0.2 mg/m^3	0.2 mg/m^3
Limestone (primarily calcium carbonate)	1317-65-3	16-18%%	No	15 mg/m^3	5 mg/m^3
Potassium Iodine	7789-80-2	<0.13% (as I)	No	None	None

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

EXPOSURE GUIDELINES:

Source	Substance	PEL
Occupational Safety & Health Administration	Nuisance dust (total)	15.0 mg/m^3 (TWA)
Occupational Safety & Health Administration	Nuisance dust (respirable fraction)	5.0 mg/m^3 (TWA)
Occupational Safety & Health Administration	Zinc dust	10.0 mg/m^3 (TWA)
Occupational Safety & Health Administration	Zinc dust (respirable fraction)	5.0 mg/m^3 (TWA)
Occupational Safety & Health Administration	Limestone (dust)	15.0 mg/m^3 (TWA)
Occupational Safety & Health Administration	Limestone (respirable fraction)	5.0 mg/m^3 (TWA)
Occupational Safety & Health Administration	Manganese compounds	5.0 mg/m^3 (TWA)
Occupational Safety & Health Administration	Iodine	1.0 mg/m^3 (TWA)
Occupational Safety & Health Administration	Copper dust	1.0 mg/m^3 (TWA)
Occupational Safety & Health Administration	Cobalt dust	0.2 mg/m^3 (TWA)

ENGINEERING CONTROLS: Use only in a well-ventilated area to prevent exposure from exceeding regulatory levels.

RESPIRATORY PROTECTION: Breathing apparatus is needed only when aerosol is formed. Use a mask suitable for aerosol. Proper handling to minimize aerosol is required. Do not smoke when handling this product.

EYE PROTECTION: Safety glasses with side-shields.

SKIN PROTECTION: Gloves

WORK HYGIENIC PRACTICES: Do not eat or drink when handling this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Brown, granular

ODOR: Sweet, organic

PHYSICAL STATE: Solid

pH: NA

MELTING POINT: >200 °C

SPECIFIC GRAVITY (H2O = 1): 0.70 at 20°C

SOLUBILITY IN WATER: Active product is water soluble; Carrier is insoluble

PERCENT SOLIDS BY WEIGHT: 100%

PERCENT VOLATILE: 0%

VOLATILE ORGANIC COMPOUNDS (VOC): 0%

SECTION 10: STABILITY AND REACTIVITY

STABILITY: This product is stable under recommended storage conditions and in normal use.

CONDITIONS TO AVOID (STABILITY): Avoid generation of dust while handling. As with all dusts, particularly those containing metals, finely divided airborne material may explode or burn when exposed to source of ignition.

INCOMPATIBILITY (MATERIAL TO AVOID): Organic and metallic compounds are incompatible with acids and strong oxidizers. Potentially violent reactions may occur on mixing with these materials.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: Thermal decomposition of solid residue may release irritating gases, such as metal oxides, or toxic gases, such as carbon monoxide.

HAZARDOUS POLYMERIZATION: None

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U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT) listed: Manganese and compounds

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): No RQ is assigned, although the class is a CERCLA hazardous substance.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

302 EXTREMELY HAZARDOUS SUBSTANCE TPQ: Not EHS

304 EXTREMELY HAZARDOUS SUBSTANCE RQ: Not EHS

311/312 HAZARD CATEGORIES: Acute: No Chronic: Yes Fire: No Pressure: No Reactivity: No

313 REPORTABLE INGREDIENTS: Manganese compounds N450 >1.0% by weight

CLEAN AIR ACT AMENDMENTS Section 112: Manganese may be subject to regulation if emitted to the air.

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT) listed: Zinc and zinc compounds

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): No RQ is assigned, although the class is a CERCLA hazardous substance.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

302 EXTREMELY HAZARDOUS SUBSTANCE TPQ: Not EHS

304 EXTREMELY HAZARDOUS SUBSTANCE RQ: Not EHS

311/312 HAZARD CATEGORIES: Acute: No Chronic: Yes Fire: No Pressure: No Reactivity: No

313 REPORTABLE INGREDIENTS: Zinc cmpds as dust or fume N987 >1.0% by weight

CLEAN AIR ACT AMENDMENTS Section 112: Not listed as Hazardous Air Pollutant in Section 112 of the CAAA.

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT) listed: Cobalt and cobalt compounds

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): No RQ is assigned, although the class is a CERCLA hazardous substance.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

302 EXTREMELY HAZARDOUS SUBSTANCE TPQ: Not EHS

304 EXTREMELY HAZARDOUS SUBSTANCE RQ: Not EHS

311/312 HAZARD CATEGORIES: Acute: Yes Chronic: Yes Fire: No Pressure: No Reactivity: No

313 REPORTABLE INGREDIENTS: Cobalt compounds N096 >0.1% by weight

CLEAN AIR ACT AMENDMENTS Section 112: Cobalt may be subject to regulation if emitted to the air.

STATE REGULATIONS: Refer to individual state agency for information.

INTERNATIONAL REGULATIONS: Refer to European Chemical Substance Information System (ESIS)
Refer to Australian Hazardous Substance Information System (HSIS)

SECTION 16: OTHER INFORMATION

OTHER INFORMATION: **DO NOT FEED TO SHEEP OR RELATED SPECIES**

PREPARATION INFORMATION:
Centers for Disease Control (CDC) Agency for Toxic Substances and Disease Registry (ATSDR)
National Fire Protection Association (NFPA)
Hazardous Materials Information System (HMIS)
U.S. EPA Chemical Emergency Preparedness and Prevention Office (CEPPO) List of Lists
Pesticide Network Database
U.S. EPA Substance Registry Service (TSCA)
U.S. Dept of Labor Occupational Safety & Health Administration (OSHA) 29 CFR 1910.1000
U.S. Dept of Transportation (DOT) 49 CFR 172.101

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