



SAFETY DATA SHEET

Version: 1.0

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Supersedes: n/a

VITAMIN D₃ 2 MILLION ICU

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1	Product identifier: Product Name	VITAMIN D ₃ 2 MILLION ICU Nutritional supplement for poultry and swine.
1.2	Recommended use of the chemical and restrictions: Identified Use(s) Uses Advised Against	General purpose feed additive for poultry and swine use. Not for human consumption
1.3	Supplier's details Company Identification	Zinpro Specialty Products 411 Ranch Road Rainsville, AL 35986
	Telephone	952-944-2736
	E-Mail (competent person)	zinpro@zinpro.com
1.4	Emergency Phone No. (Spill, Leak, Fire, Exposure, or Accident): Languages spoken	CHEMTREC 1-800-424-9300 (US and Canada) 1-703-527-3887 (collect calls accepted) Reference CCN 725293 24 hours, English spoken.

SECTION 2: HAZARDS IDENTIFICATION

2.1	Hazard Classification:	Flammable liquids Category 3 Serious eye damage Category 1
2.2	Label elements:	

Symbols:



Signal Word:

Danger

Hazard statement:

H226 Flammable liquid and vapor.
H318 Causes serious eye damage.

Precautionary Statement:

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting/ equipment.
P242 Use only non-sparking tools.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P370 + P378 In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.

Storage:

P403 + P235 Store in a well-ventilated place. Keep cool.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.



SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**3.1 Mixtures Substances in preparations / mixtures Actual concentration is withheld as a trade secret by the manufacture DSM**

<u>Ingredient</u>	<u>CAS</u>	<u>% w/w</u>
propan-1-ol	71-23-8	>= 5 - < 10
ethoxyquin	91-53-2	>= 5 - < 10
cholecalciferol	67-97-0	>= 0.1 - < 1

SECTION 4: FIRST AID MEASURES

Avoid contact with all workplace chemicals.

4.1 Description of first aid measures

SKIN:	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. If symptoms persist, call a physician.
EYES:	In the case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. Continue rinsing eyes during transport to hospital. Small amounts splashed into eyes can cause irreversible tissue damage and blindness.
INGESTION:	Rinse mouth with water. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. Obtain medical attention. Do NOT induce vomiting.
INHALATION:	Move to fresh air. Consult a physician after significant exposure.

SECTION 5: FIRE-FIGHTING MEASURES

5.1 SUITABLE EXTINGUISHING MEDIA:	Use alcohol-resistant foam, carbon dioxide (CO ₂) dry chemical. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
5.2 COMBUSTION PRODUCTS:	Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
5.3 FIRE FIGHTING PROCEDURES:	Self-contained breathing apparatus in enclosed areas. Do not inhale combustion gases. Do not flush into storm drains.
5.4 UNUSUAL FIRE AND EXPLOSION HAZARDS:	Hazardous decomposition products formed under fire conditions. Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge. Avoid formation of aerosol.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS:	Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Remove all sources of ignition. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
6.2 ENVIRONMENTAL PRECAUTIONS:	Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.
6.3 METHODS FOR CLEANING:	Contain spillage, and then collect with non-combustible absorbent material, (e.g., sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local/ national regulations (see section 13).

SECTION 7: HANDLING AND STORAGE

- 7.1 HANDLING AND STORAGE:** Avoid exceeding the given occupational exposure limits (see section 8). Avoid contact with skin and eyes. For personal protection (see section 8.) To avoid spills during handling keep bottle on a metal tray. Container may be opened only under exhaust ventilation hood. Smoking, eating, and drinking should be prohibited in the application area. Keep container tightly closed and dry. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Electrical installations/working materials must comply with the technological safety standards.
- 7.2 OTHER PRECAUTIONS:** Keep away from sources of ignition - No smoking. Take necessary action to avoid static electricity discharge. Avoid formation of aerosol.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Potential workplace routes of exposure include inadvertent, incidental oral ingestion and inadvertent, incidental dermal contact. Inhalation is not a significant route of exposure.

- 8.1 EXPOSURE GUIDELINES:** **U.S. Occupational Safety and Health Administration**

Substance	Permissible Exposure Level
propan-1-ol	500 mg/m ³ TWA (OSHA Z-1)

- 8.1.1 ENGINEERING CONTROLS:** Ventilation should be sufficient to effectively remove and prevent buildup of any dusts or fumes that may be generated during handling or thermal processing.
- 8.1.2 RESPIRATORY PROTECTION:** In the case of vapor formation use a respirator with an approved filter.
- 8.1.3 EYE PROTECTION:** Safety glasses with side-shields Wear face-shield and protective suit for abnormal processing problems.
- 8.1.4 SKIN/HAND/BODY PROTECTION:** Choose body protection according to the amount and concentration of the dangerous substance at the workplace. Hand protection Consider the hazard characteristics of this product and any special workplace conditions when selecting the appropriate type of protective, solvent-resistant gloves. Example nitrile rubber.
- 8.1.5 WORK HYGIENIC PRACTICES:** Avoid contact with skin, eyes, and clothing. Wash hands before breaks and immediately after handling the product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES:**

APPEARANCE:	Liquid
ODOR:	NA
PHYSICAL STATE:	NA
pH:	NA
MELTING POINT:	NA
SPECIFIC GRAVITY (H₂O = 1):	NA
SOLUBILITY IN WATER:	NA
PERCENT SOLIDS BY WEIGHT:	NA
PERCENT VOLATILE:	NA
VOLATILE ORGANIC CMPDS (VOC):	NA
FLAMMABLE LIMITS IN AIR UPPER:	NA -May form combustible vapor concentrations in air
(% BY VOLUME) LOWER:	NA
FLASH POINT:	117.0 °F (47.2 °C)
AUTOIGNITION TEMPERATURE:	NA
BOILING POINT:	83.9 °C
RELATIVE DENSITY:	NA

SECTION 10: STABILITY AND REACTIVITY

10.1	STABILITY:	This product is stable under recommended storage conditions and in normal use.
10.2	CONDITIONS TO AVOID (STABILITY):	Heat, flames, and sparks.
10.3	INCOMPATIBILITY (MATERIALS TO AVOID):	Strong acids and strong bases. Strong oxidizing agents.
10.4	HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	None expected under normal conditions of use.
10.5	HAZARDOUS POLYMERIZATION:	None

SECTION 11: TOXICOLOGICAL INFORMATION**11.1 Information on toxicological effects****Acute Toxicity:**

Acute toxicity estimate (ATE) for this mixture: **LD50 (oral,) = > 5,000 mg/kg**
(Calculation method)

Sub-Acute/Chronic Effects:

Skin Sensitizer:	Not Classified
Carcinogen:	Not Classified
Mutagen:	Not Classified
Skin Irritant:	Not Classified- May cause skin irritation
Eye Irritant:	Serious eye damage, Category 1
Reproductive Toxicity:	Not Classified
Acute toxicity (Oral): cholecalciferol	Not Classified
Target Organ:	Not Classified
Aspiration toxicity:	Not Classified
STOT - repeated exposure: cholecalciferol	NOAEL (Oral, Rat): 0.06 mg/kg bw/d Sub-chronic toxicity study (90-day) (OECD Test Guideline 408) Causes damage to organs through prolonged or repeated exposure.

SYMPTOMS OF OVEREXPOSURE: cholecalciferol

Acute overdose produces the following symptoms: Nausea, Vomiting, Headache, Weakness, Abdominal pain, Dry mouth, Metallic taste, Loss of appetite
Asthma or other respiratory problems, existing dermatitis
Solvents may degrease the skin.

11.2 MEDICAL CONDITIONS GENERALLY AGGRAVATED BY OVEREXPOSURE:**SECTION 12: ECOLOGICAL INFORMATION****12.1 Toxicity to daphnia and other aquatic invertebrates:**

ethoxyquin
Toxicity to daphnia and other aquatic invertebrates EC50 (48 h) 2 mg/l (Crustaceans)

12.2 Persistence and degradability Biodegradability:

Biodegradability
cholecalciferol Not readily biodegradable.
<= 7 % (28 d)
(OECD Test Guideline 301C)

ethoxyquin (ISO) Readily biodegradable.90 %
n-propanol Readily biodegradable. 75 % (20 d)

SECTION 13: DISPOSAL CONSIDERATIONS

User must determine if any wastes generated exhibit hazardous characteristics as per 40 CFR Part 261 or other national / local legislation.

13.1 Waste from residues;

Discharge into the environment must be avoided. Do not contaminate ponds, waterways, or ditches with chemical or used container. Do not dispose of waste into sewer. Offer surplus and non-recyclable solutions to a licensed disposal company.

13.2 Contaminated packaging:

Do not burn, or use a cutting torch on, the empty drum.
Dispose of as unused product. Do not re-use empty containers.

SECTION 14: TRANSPORT INFORMATION

14.1	US Department of Transport	
	UN/ID/NA number:	UN 1993 /NA 1993
	UN proper shipping name:	Combustible liquid, n.o.s. (n-propanol)
14.2	Transport hazard class(es) :	
	Class:	CBL
	Subsidiary risk:	-
	Label(s):	None
	ERG Code:	128
	Packing group:	III
	Environmental hazards:	
	Marine pollutant:	No
	Remarks:	Above applies only to containers over 119 gallons or 450 litres. Not regulated if shipped in packages less than or equal to 119 gallons (450 litres). If transporting by vessel or aircraft, unless other means of transportation is impracticable, then the product must be shipped as a flammable liquid.

SECTION 15: REGULATORY INFORMATION

This product is not known to be a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

15.1.	U.S. FEDERAL REGULATIONS	
15.1.1	TSCA (TOXIC SUBSTANCE CONTROL ACT) listed:	Not relevant
15.1.2	CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT):	Not listed.
15.1.3	EPCRA (EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT):	
	302 EXTREMELY HAZARDOUS SUBSTANCE TPQ	Not regulated
	304 EXTREMELY HAZARDOUS SUBSTANCE RQ:	Not relevant
	311/312 HAZARD CATEGORIES:	Acute: Yes Chronic: No Fire: Yes Pressure: No Reactivity: No
	313 REPORTABLE INGREDIENTS:	Not regulated
15.1.4	CLEAN AIR ACT AMENDMENTS Section 112:	Not listed as Hazardous Air Pollutant in Section 112 of the CAAA.
15.2	STATE REGULATIONS:	Refer to individual state agency for information.
15.3	INTERNATIONAL REGULATIONS:	Refer to European Chemical Substance Information System (ESIS) Refer to Australian Hazardous Substance Information System (HSIS)

SECTION 16: OTHER INFORMATION

16.2	NFPA HAZARD CLASSIFICATION			
	HEALTH: 3	FLAMMABILITY: 2	REACTIVITY: 0	
16.3	HMIS HAZARD CLASSIFICATION			
	HEALTH: 3	FLAMMABILITY: 2	PHYSICAL: 0	PROTECTION: 1B
	0 = Insignificant 1 = Slight 2 = Moderate 3 = High 4 = Extreme			
16.4	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			
	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			

DISCLAIMER: The information expressed in this document regarding this product is believed to be reliable. However, no guarantee or warranty of any kind, express or implied, concerning the use of this product is intended.