

MATERIAL SAFETY DATA SHEET

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: OPTIMIN® ZMC
PRODUCT CODE: 10172910
CHEMICAL FAMILY: Trace minerals
CHEMICAL NAME: Mixture of Optimin Zinc proteinate, Optimin Manganese proteinate and Optimin Copper proteinate
SYNONYMS: Optimin ZMC blend
TYPICAL USES: Animal feed supplement
MANUFACTURER: Trouw Nutrition USA, LLC
115 Executive Drive P.O. Box 219
Highland, IL 62249
(618) 654-2070

EMERGENCY TELEPHONE NUMBERS: CHEMTREC: (800) 424-9200
PRODUCTION PLANT: (320) 235-5125
GENERAL OFFICE: (800) 255-3582

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture of Optimin Zinc proteinate 15%, Optimin Manganese proteinate 15% and Optimin Copper proteinate 10% in a zinc 8% /manganese 5%/copper 2% ratio.

This product, Optimin ZMC, does not contain any hazardous ingredients under OSHA regulations

SECTION 3. HAZARDS IDENTIFICATION

A green powder which is not hazardous: No hazard expected, however, dust may cause eye irritation. Although no hazards expected, breathing dust may cause respiratory and skin irritation. No hazard expected from swallowing.

SECTION 4. FIRST AID MEASURES

Eyes: Flush eyes with clean, low-pressure water while occasionally lifting eyelids. If irritation persists, get medical attention.

Inhalation: No adverse effects anticipated by breathing small amounts during proper industrial handling. If there is difficulty breathing, remove from contaminated area to fresh air and get medical attention.

Skin: Wash skin with water, use soap if available.

Ingestion/Swallowing: No adverse effects anticipated. Rinse mouth and throat thoroughly with tap water

SECTION 5. FIRE FIGHTING MEASURES

Flammable Properties: Flash point – not applicable/available – Non-flammable

Flammable Limits: Not applicable/available

Unusual Fire and Explosive Hazards: None

Other Fire and Explosion Hazards: None

Fire Extinguishing Media: As appropriate for surrounding material.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is accidentally released or spilled: Sweep, scoop or vacuum discharged material. Keep dust to a minimum. Dispose by methods consistent with federal, state and local regulations.

This product is a non-hazardous waste when disposed of as defined in Resource Conservation Recovery Act (RCRA) regulations (40 CFR 261)

SECTION 7. HANDLING AND STORAGE

General Handling Precautions: Use adequate ventilation and dust collection. Practice good housekeeping.

Storage Information: Store in a cool dry location away from incompatible materials.

Shelf life: No known limit. Clumping may occur under humid conditions. Use within 2 years recommended.

Special Sensitivity: None

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Provide ventilation and particulate control to maintain airborne levels below the exposure guidelines of 10 mg per cubic meter.

Eye Protection: Contact may cause irritation. Use safety goggles or glasses.

Respiratory/inhalation Protection: May cause irritation of the nasal membranes or the upper respiratory tract. If dust exceeds the nuisance level. Use NIOSH-MSHA approved dust respirator.

Skin Protection: Normally no harmful effects expected. As a general precaution, use gloves.

Ingestion: Large amounts may be harmful. Get medical attention.

Unusual Chronic Toxicity: None

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<u>Physical form:</u>	A free-flowing powder
<u>Color:</u>	Green
<u>Odor:</u>	A mild grain derivative odor
<u>Bulk density:</u>	0.65 - 0.67 (g/cc)
<u>Particle mesh size:</u>	100
<u>Stability:</u>	Stable

SECTION 10. STABILITY AND REACTIVITY

Chemical Stability: Stable under normal conditions.

Material Incompatibility: None

Conditions to avoid: Keep dry to avoid mold

Hazardous Decomposition Products: None

SECTION 11. TOXICOLOGICAL INFORMATION

Nontoxic at recommended levels - Test results- contains <0.25ng/kg of Dioxin

SECTION 12. ECOLOGICAL INFORMATION

Because chelated OPTiMIN®s are more bioavailable than inorganic trace minerals, less environmental pollution would be expected

SECTION 13. DISPOSAL CONSIDERATIONS

Not considered a hazardous waste under Federal Hazardous Waste Regulations (40 CFR 261). Consult state and local regulations regarding proper disposal as they may be more restrictive or otherwise different from Federal regulations.

Steps to be taken if material is released or spilled: Sweep, scoop or vacuum discharged material. Keep dust to a minimum. Dispose by methods consist with federal, state and local regulations.

SECTION 14. TRANSPORT INFORMATION

Not a D.O.T. Hazardous Material (49 CFR 172.101). Not regulated

Labeling: Containers of this product need no special warning labels. Only a product identity label is needed.

SECTION 15. REGULATORY INFORMATION

U.S. Federal Regulations

FDA/USDA: Follow current Good Manufacturing Practice (cGMP).

International Regulations

Approved under European Regulations No. 2316/98 (26 October 1998)

State Regulations

There are no known additional requirements necessary for compliance with states regulations.

SECTION 16. OTHER INFORMATION

Caution: Do NOT get into eyes. Use adequate ventilation. Wash thoroughly after handling.

Prepared by: Regulatory Affairs Department – (618/654-2070) [USA]



a nutreco company

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