



MATERIAL SAFETY DATA SHEET

Name of Product:

NACHURS MicroBolt Zn™

Product #: F000101

Revision Date: Aug 3, 2012

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: NACHURS MicroBolt Zn™
SYNONYMS: Zinc 9%; Liquid micronutrient solution
PRODUCT CODES: F000068, F000101, F000387

MANUFACTURER: NACHURS ALPINE SOLUTIONS®
DIVISION: Marion
ADDRESS: 421 Leader Street, Marion, OH 43302, United States

EMERGENCY PHONE: 1-800-424-9300 (CHEMTREC)

CHEMICAL NAME: Zinc EDTA Chelate
CHEMICAL FAMILY: Chelated Micronutrient Solution-Zn
CHEMICAL FORMULA:

PRODUCT USE:

PREPARED BY: NACHURS ALPINE SOLUTIONS®

SECTION₁ NOTES:

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

ROUTES OF ENTRY: Inhalation, Ingestion, Injection, Absorption

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation
SKIN: May cause irritation
INGESTION: May cause irritation
INHALATION: May cause irritation

ACUTE HEALTH HAZARDS: N/A

CHRONIC HEALTH HAZARDS: N/A

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: N/A

CARCINOGENICITY:

OSHA: N/A
ACGIH: N/A
NTP: N/A
IARC: N/A
OTHER: N/A

SECTION₂ NOTES:

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT: Ethylenediaminetetraacetic acid, diammonium zinc salt 10.0%

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Inert Ingredients 90.0%

CAS NO.: 67859-51-2

% WT:

% VOL:

SARA 313 REPORTABLE: N/A

pmm:

mg/m³:

OSHA PEL-TWA: N/A

OSHA PEL STEL: N/A

OSHA PEL CEILING: N/A

ACGIH TLV-TWA: N/A

ACGIH TLV STEL: N/A

ACGIH TLV CEILING: N/A

SECTION 3 NOTES:

SECTION 4: FIRST AID MEASURES

EYES: Flush with water immediately and thoroughly for 15 minutes. Seek medical attention.

SKIN: Remove all contaminated clothing. Wash skin and hair thoroughly with soap and water. Wash clothing before reuse. If irritation persists, seek medical attention.

INGESTION: Harmful if swallowed. Call a physician immediately.

INHALATION: Remove to fresh air. If irritation persists, seek medical attention.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS:

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE LIMITS IN AIR: UPPER: N/A
(% BY VOLUME) LOWER: N/A

FLASH POINT:

F°: N/A

C°: N/A

METHOD USED: N/A

AUTOIGNITION TEMPERATURE:

F°: N/A

C°: N/A

NFPA HAZARD CLASSIFICATION:

HEALTH: 1

FLAMMABILITY: 1

REACTIVITY: 1

OTHER: 0

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HMIS HAZARD CLASSIFICATION

HEALTH: 1
FLAMMABILITY: 1
REACTIVITY: 1
PROTECTION:

EXTINGUISHING MEDIA: Water or media suitable for surrounding fire. Dry chemical, Foam, CO₂, Spray or Fog.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and full protective clothing. Smoke and fumes from fire may contain hazardous components.

UNUSUAL FIRE AND EXPLOSION HAZARDS: If water is used to fight fire or cool containers, contain run-off by diking to prevent contamination of water supplies.

HAZARDOUS DECOMPOSITION PRODUCTS: Not known. Oxides of nitrogen and other unknown hazardous material may form in a fire.

SECTION 5 NOTES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Contain spill; absorb liquid by covering with clay or other absorbent material; then vacuum or scoop and sweep up wastes and place in container for disposal.

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Store in a cool, dry place out of direct sunlight, away from children and other food and feed products. Do not contaminate other stored products or the storage area by handling or storage of this product. Immediately clean up any spills which occur during handling and storage. PROTECT FROM FREEZING.

OTHER PRECAUTIONS: Do not contaminate water supplies by handling or storage of product, cleaning of equipment or disposal of wastes. Keep work and storage areas clean. Read and follow precautionary measures on product label.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: N/A

VENTILATION: Provide adequate ventilation for local areas.

RESPIRATORY PROTECTION: Not normally required. If vapors exceed acceptable levels, wear MSHA/NIOSH approved respirator or mask to protect against dusts, mists and vapors.

EYE PROTECTION: Chemical splash goggles and full-face shield.

SKIN PROTECTION: Rubber gloves.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: Wear clothing consistent with good practices for handling and applying fertilizers. Wash clothing before reuse.

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WORK HYGIENIC PRACTICES: N/A

EXPOSURE GUIDELINES: N/A

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear, colorless to pale yellow.

ODOR: No odor.

PHYSICAL STATE: Liquid

pH AS SUPPLIED: 7.0
pH (Other):

BOILING POINT:

F°: 212

C°: 100

MELTING POINT:

F°: N/A

C°: N/A

FREEZING POINT:

F°: N/A

C°: N/A

VAPOR PRESSURE (mmHg) @

F°: N/A

C°: N/A

VAPOR DENSITY (AIR = 1) @

F°: N/A

C°: N/A

SPECIFIC GRAVITY (H₂O = 1) 1.29

DENSITY, LBS/GAL: 10.74

EVAPORATION RATE: N/A

SOLUBILITY IN WATER: Complete

PERCENT SOLIDS BY WEIGHT:

PERCENT VOLATILE: 38%

BY WT

BY VOL @F°: N/A

C°: N/A

VOLATILE ORGANIC COMPOUNDS (VOC): None

WITH WATER LBS/GAL:

WITHOUT WATER LBS/GAL:

MOLECULAR WEIGHT: N/A

VISCOSITY: N/A

SECTION 9 NOTES:

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SECTION 10: STABILITY AND REACTIVITY

	STABLE	UNSTABLE
STABILITY:	x	
CONDITIONS TO AVOID (STABILITY):	Extreme heat or fire.	
INCOMPATIBILITY (MATERIAL TO AVOID):	Strong oxidizers, acids, chlorine.	
HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:	Not known. Oxides of nitrogen and other unknown hazardous material may form in a fire.	
HAZARDOUS POLYMERIZATION:	Will not occur.	
CONDITIONS TO AVOID (POLYMERIZATION):	N/A	

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: N/A

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Do not allow entry into drinking water.

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Material which cannot be used at the site should be disposed of in an approved waste disposal facility, following all applicable Federal, State and Local regulations. Triple rinse empty containers and offer for recycling or reconditioning, or puncture and dispose of in an approved sanitary landfill, or by other procedures approved by state and local authorities. Do not contaminate water supplies by disposal of wastes or containers.

RCRA HAZARD CLASS: N/A

SECTION 13 NOTES:

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SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION:

PROPER SHIPPING NAME: NACHURS MicroBolt Zn™

HAZARD CLASS: N/A

ID NUMBER: N/A

PACKING GROUP: N/A

LABEL STATEMENT: N/A

Health: 1 Flammability: 1 Reactivity: 1 Specific: None

WATER TRANSPORTATION:

PROPER SHIPPING NAME: NACHURS MicroBolt Zn™

HAZARD CLASS: N/A

ID NUMBER: N/A

PACKING GROUP: N/A

LABEL STATEMENT:

Health: 1 Flammability: 1 Reactivity: 1 Specific: None

AIR TRANSPORTATION

PROPER SHIPPING NAME: NACHURS MICROBOLT ZN

HAZARD CLASS: N/A

ID NUMBER: N/A

PACKING GROUP: N/A

LABEL STATEMENTS:

Health: 1 Flammability: 1 Reactivity: 1 Specific: None

OTHER AGENCIES:

SECTION 14 NOTES:

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS:

TSCA (TOXIC SUBSTANCE CONTROL ACT): Yes

CERCLA (COMPREHENSIVE RESPONSE COMPENSATION, AND LIABILITY ACT): No

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT): Yes

311/312 HAZARD CATEGORIES: Immediate **Y** Fire **N** Sudden Release of Pressure **N**
Delayed **N** Reactive **N**

313 REPORTABLE INGREDIENTS: Zinc compounds 10% (see above)
Ammonia <5% (CAS: 7664-41-7)

STATE REGULATIONS:

INTERNATIONAL REGULATIONS:

SECTION 15 NOTES:

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SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

PREPARATION INFORMATION: Technical Services

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