



MATERIAL SAFETY DATA SHEET

Name of Product:

ALPINE MicroBolt Zn[®]

Product #: F 27

Revision Date: January 26, 2018

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: ALPINE MicroBolt Zn
SYNONYMS: Zinc 9%
PRODUCT CODES: F 27

MANUFACTURER: NACHURS ALPINE SOLUTIONS[®]
DIVISION: New Hamburg
ADDRESS: 30 Neville Street, New Hamburg, ON N3A 4G7 CANADA
PHONE: 1-519-662-2352

EMERGENCY PHONE: 1-877-378-7745 (QM)
CHEMTREC PHONE: 1-800-424-9300 (US)
CANUTEC: 1-613-996- 6666 (CANADA)
FAX PHONE: N/A

CHEMICAL NAME: Zinc Oxide Ethylenediaminetetraactate Chelate Water Solution
CHEMICAL FAMILY: Chelated Micronutrient solution
CHEMICAL FORMULA: EDTA with Zinc

PRODUCT USE: Agricultural Nutrient Supply

PREPARED BY: NACHURS ALPINE SOLUTIONS[®]

SECTION 1 NOTES:

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Use with Care!

ROUTES OF ENTRY: Inhalation, Ingestion, Injection, Absorption

POTENTIAL HEALTH EFFECTS

EYES: May cause irritation, redness and pain
SKIN: May cause irritation
INGESTION: May cause irritation, nausea, stomach pain
INHALATION: May cause irritation of mucous membrane

ACUTE HEALTH HAZARDS: Liquid contact may cause slight eye irritation & repeated skin exposure may cause some skin irritation.

CHRONIC HEALTH HAZARDS: None Reported

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: None Reported

CARCINOGENICITY:

OSHA: No data established
ACGIH: No data established
NTP: No data established
IARC: No data established
OTHER: N/A

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| | | |
|-------------|-----------------------------|----------------|
| INGREDIENT: | Zinc Oxide | 11.25% |
| | Nitriloriaoptic Acid | less than 0.1% |
| | Ethylenediaminetetraacetate | 43.72% |
| | Ammonium Hydroxide | 16.74% |
| | Water | 28.19% |

| | | |
|----------|-----------------------------|------------|
| CAS NO.: | Zinc Oxide | 1314-13 -2 |
| | Nitriloriaoptic Acid | 139-13-9 |
| | Ethylenediaminetetraacetate | 000060-004 |
| | Ammonium Hydroxide | 1336-21-6 |
| | Water | 7732-18-5 |

% WT: 100%
% 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 eye immediately and thoroughly with water for at least 15 minutes. If irritation persists, seek medical attention.

SKIN: Flush skin immediately and thoroughly with water. If irritation persists, seek medical attention.

INGESTION: CALL POISON CONTROL. If conscious, immediately give water or milk to dilute stomach acid. Do not induce vomiting. If spontaneous vomiting should occur, lean head below hips to prevent aspiration of liquid into lungs. Get medical attention immediately.

INHALATION: Remove to fresh air. Seek medical attention if necessary.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: N/A

SECTION 4 NOTES:

SECTION 5: FIRE-FIGHTING MEASURES

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

FLASH POINT: N/A

METHOD USED: N/A

AUTOIGNITION TEMPERATURE: N/A

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NFPA HAZARD CLASSIFICATION:

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0
OTHER: None

HMIS HAZARD CLASSIFICATION

HEALTH: 1
FLAMMABILITY: 0
REACTIVITY: 0

PROTECTION:

EXTINGUISHING MEDIA: If involved is a fire, use water or media suitable for surrounding materials.

SPECIAL FIRE FIGHTING PROCEDURES: Wear positive pressure self-contained breathing apparatus & full protective clothing

UNUSUAL FIRE AND EXPLOSION HAZARDS: N/A

HAZARDOUS DECOMPOSITION PRODUCTS: Nitrogen oxides may be released if dried product is burned.

SECTION 5 NOTES:

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Prevent product from entering drinking water supplies or streams. In the case of a spill, isolate area and maximize recovery. Mop up promptly or absorb using inert materials (sand/earth/kitty litter) and place in metal or plastic containers. Reuse material if possible or dispose of material according to local, provincial & federal regulations.

SECTION 6 NOTES:

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Store in suitable containers made of mild steel, plastic fiberglass, or stainless steel. Do not store in containers containing aluminum or copper. Store in a tightly closed container. Store in a cool, dry, and well-ventilated area and away from incompatible substances. **PROTECT FROM FREEZING.**

OTHER PRECAUTIONS: Immediately clean up any spills that occur during handling & storage. General safety and industrial hygienic practices should always be followed. Remove contaminated clothing and wash before reuse.

SECTION 7 NOTES:

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Use adequate general and local exhaust ventilation to keep airborne concentrations below exposure limits.

VENTILATION : Provide adequate ventilation for local areas.

RESPIRATORY PROTECTION: Respirators are not required under normally ventilated conditions. If misted by heat, agitation or spray, use a mist respirator approved by NIOSH.

EYE PROTECTION: Safety glasses are recommended

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SKIN PROTECTION: Wear impervious gloves and clothing

OTHER PROTECTIVE CLOTHING OR EQUIPMENT: N/A

WORK HYGIENIC PRACTICES: Wash hands thoroughly after handling.

EXPOSURE GUIDELINES: See Section 3.

SECTION 8 NOTES:

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear/ Slight Amber

ODOR: May have slight ammonia odor

PHYSICAL STATE: Liquid

pH AS SUPPLIED: 6.8 – 7.2
pH (Other):

BOILING POINT:

F°: 200°F
C°: 93.3°C

MELTING POINT:

F°: 0°F
C°: -17.8°C

FREEZING POINT:

F°: 0°F
C°: -17.8°C

VAPOR PRESSURE (mmHg) N/A

VAPOR DENSITY (AIR = 1) N/A

SPECIFIC GRAVITY (H₂O = 1) 1.3 – 1.32

EVAPORATION RATE: N/A

BASIS (=1):

SOLUBILITY IN WATER: Complete

PERCENT SOLIDS BY WEIGHT: 71.81%

PERCENT VOLATILE: N/A

BY WT
BY VOL @F°:
C°:

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VOLATILE ORGANIC COMPOUNDS (VOC): 0%
WITH WATER LBS/GAL:
WITHOUT WATER LBS/GAL:

MOLECULAR WEIGHT: N/A
VISCOSITY: Same as water

SECTION 9 NOTES:

SECTION 10: STABILITY AND REACTIVITY

| | STABLE | UNSTABLE |
|-----------------------------------------|----------------------------------------------------------------------------------------------------------------|----------|
| STABILITY: | x | |
| CONDITIONS TO AVOID (STABILITY): | Excessive heat. | |
| INCOMPATIBILITY (MATERIAL TO AVOID): | Water-reactive materials, strong oxidizers and acids. Avoid contact with aluminum or copper containing metals. | |
| HAZARDOUS DECOMPOSITION OR BY-PRODUCTS: | Nitrogen oxides may be released if dried product is burned. | |
| HAZARDOUS POLYMERIZATION: | Will not occur | |
| CONDITIONS TO AVOID (POLYMERIZATION): | N/A | |

SECTION 10 NOTES:

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: No data established for this product. For similar product – LD50 (Oral, Rat): > 2000 mg/kg

SECTION 11 NOTES:

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Do not allow entry into drinking water. This product is a fertilizer solution. Release of large quantities into a body of water can substantially alter the nutrient composition effect on aquatic plants, fish, and animal life.

No data established for this product.

SECTION 12 NOTES:

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: As product should have a pH of less than 12.5 & would not be considered hazardous waste, according to EPA Regulation 40CFR261. Dispose of in accordance with provincial & local regulations

RCRA HAZARD CLASS: N/A

SECTION 13 NOTES:

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SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION/TRANSPORT CANADA:

PROPER SHIPPING NAME: Zinc Oxide Ethylenediaminetetraacetate Chelate Water Solution
HAZARD CLASS: N/A
ID NUMBER: N/A
PACKING GROUP: N/A
LABEL STATEMENT:
Health: 1 Flammability: 0 Reactivity: 0 Specific: None

WATER TRANSPORTATION:

PROPER SHIPPING NAME: Zinc Oxide Ethylenediaminetetraacetate Chelate Water Solution
HAZARD CLASS: N/A
ID NUMBER: N/A
PACKING GROUP: N/A
LABEL STATEMENTS:
Health: 1 Flammability: 0 Reactivity: 0 Specific: None

AIR TRANSPORTATION

PROPER SHIPPING NAME: Zinc Oxide Ethylenediaminetetraacetate Chelate Water Solution
HAZARD CLASS: N/A
ID NUMBER: N/A
PACKING GROUP: N/A
LABEL STATEMENTS:
Health: 1 Flammability: 0 Reactivity: 0 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): N/A
311/312 HAZARD CATEGORIES: N/A
313 REPORTABLE INGREDIENTS: Zinc Oxide, Nitriloriaoptic Acid, Ethylenediaminetetraacetate, Ammonium Hydroxide

STATE REGULATIONS:

INTERNATIONAL REGULATIONS:

CANADA FEDERAL REGULATIONS:

WHMIS CLASSIFICATIONS: Not Regulated
DSL (Domestic Substance List):
Zinc Oxide: No
Nitriloriaoptic Acid: Yes
Ethylenediaminetetraacetate: No
Ammonium Hydroxide: Yes

SECTION 15 NOTES:

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SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

PREPARATION INFORMATION: Technical Services Department

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