

KEY FEEDS DF Zinc

Material Safety Data Sheet (rev.11/04)

SECTION I
PRODUCT IDENTIFICATION

NFPA HAZARD RATINGS	
HEALTH HAZARD 1	FIRE HAZARD 0
REACTIVITY 0	
Based on the National Fire Protection Association rating system (0 = Minimal; 1 = Slight; 2 = Moderate; 3 = High; 4 = Severe)	
SARA/ TITLE III HAZARD CATEGORIES (See Section IX)	
Immediate (ACUTE) Health: NO	Reactive Hazard: NO
Delayed (Chronic) Health: Not Known	Fire Hazard: NO
Sudden Release of Pressure: NO	
Company Name:	STOLLER USA, INC.
Address:	4001 W. Sam Houston Parkway, N., Suite 100 Houston, Texas 77043-1226 U.S.A.
Emergency Phone Number:	CHEMTREC: In the U.S. and Canada call Toll- free: 1 (800) 424-9300 From other countries call collect: +1 (703) 527-3887
Phone Number for Information:	1 (800) 539-5283 or 1 (713) 461-1493
Chemical Family:	Complexed metallic sulfates.
Chemical Name & Synonyms:	Flowable powder micronutrient fertilizer.
Formula:	Proprietary
Trade name & Synonyms:	KEY FEEDS DF Zinc (12% S, 18% Zn), KEY FEEDS DF Eighteen Percent Zinc

SECTION II
COMPOSITION/ INFORMATION ON INGREDIENTS

INGREDIENTS:	CAS#	Approx. %	TLV
Lignosulfonic Acid, Sodium Sulf	68512-34-5	5-10%	N/ A
Zinc sulfate	7733-02-0	50%	1 mg/ m ³ as Zn

SECTION III
HAZARD IDENTIFICATION

- A. EXPOSURE LIMITS:**
1. OSHA Permissible Exposure Limit (PEL): Not Established
 2. Threshold Limit Value (TLV): Not Established
- B. CARCINOGEN OR POTENTIAL CARCINOGEN:**
1. NPT: N/ A
 2. IARC: N/ A
 3. OSHA: N/ A
- C. EFFECTS OF OVEREXPOSURE:**
1. **ACUTE:**
EYES: May cause moderate to severe eye irritation, may cause corneal injury if exposed for long periods.
SKIN: Prolonged or repeated exposure may cause skin irritation, rashes, eruptions, dryness and cracking of skin.
INHALATION: Mists may cause irritation to upper respiratory tract, nausea.
INGESTION: May cause gastrointestinal irritation or ulceration, abdominal pain.
- D. ADDITIONAL INFORMATION:**N/ A

SECTION IV
FIRST- AID MEASURES

- A. EMERGENCY FIRST AID PROCEDURES:**
- EYES:** IMMEDIATELY flush eyes with a direct stream of water for at least 15 minutes; if irritation occurs, get medical attention.
- SKIN:** Wash thoroughly with soap and water. Rinse thoroughly. Seek medical attention if inflammation occurs. Do not attempt to neutralize with chemicals.
- INHALATION:** Remove from exposure area. If irritation exists from mists or, in the event of massive inhalation, seek medical attention.
- INGESTION:** If swallowed, IMMEDIATELY induce vomiting by drinking two glasses of water and sticking finger down throat. Call a physician or a poison control center.
- B. ANIMAL TOXICITY DATA:** Not Established
- C. ADDITIONAL INFORMATION:** N/ A

SECTION V**FIRE AND EXPLOSION DATA**

FLASH POINT:	Not Applicable (N/ A)		
FLAMMABLE LIMITS:	N/ A	LEL: N/ A	UEL: N/ A
EXTINGUISHER MEDIA:	Use any means to fight surrounding fire, water, CO ₂ , or dry chemicals. Product is non- flammable.		
SPECIAL FIRE FIGHTING PROCEDURES:	Wear protective clothing and self- contained breathing apparatus		
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Toxic fumes may be generated under fire conditions. Container may bloat and leak under fire conditions.		

SECTION VI**ACCIDENTAL RELEASE MEASURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED: Contain and collect product in appropriate container for salvage or disposal. Ventilate and wash area.

SECTION VII**HANDLING AND STORAGE**

Maintain containers closed and dry. For easy of handling, do not allow product to get wet, keep it away from humidity sources. Avoid unnecessary contact with skin or clothing. Wash hands thoroughly after using. Store away of food, feed, clothing and incompatible products.

SECTION VIII**SPECIAL PROTECTION / CONTROL MEASURES**

RESPIRATORY PROTECTION: Wear an OSHA or NIOSH approved dust respirator.
VENTILATION: General ventilation is usually adequate. Local exhaust should be used if needed for safe, comfortable working conditions.
WORK/ HYGIENIC PRACTICES: N/ A

SECTION IX**PHYSICAL AND CHEMICAL CHARACTERISTICS**

BOILING POINT:	Not Established (N/ E)	VAPOR PRESSURE (mm/ Hg):	Not Applicable (N/ A)
MELTING POINT:		VAPOR DENSITY (air = 1):	N/ A
SPECIFIC GRAVITY:	1.95	REACTIVITY IN WATER:	
SOLUBILITY IN WATER:	Flowable	EVAPORATION RATE:	N/ A
APPEARANCE AND ODOR:	Gray- brown fine powder; characteristic odor.		
PERCENT VOLATILE BY VOLUME:			
FREEZING POINT:	N/ E		

SECTION X**PHYSICAL HAZARDS (REACTIVITY DATA)**

STABILITY: Stable: Yes Unstable:
INCOMPATIBILITY, MATERIALS TO AVOID: Acid anhydrides, strong acids, oxidizing agents.
HAZARDOUS DECOMPOSITION PRODUCTS: Fumes like SO₂, SO, CO₂, CO and others may evolve under fire conditions.
MAY OCCUR: **WILL NOT OCCUR: X**

SECTION XI**TOXICOLOGICAL INFORMATION**

- A. **TOXICITY DATA:**
- B. **CARCINOGENICITY:**
- C. **MUTAGENICITY:**
- D. **REPRODUCTIVE TOXICITY:**

SECTION XII**ENVIRONMENTAL EFFECTS DATA**

No environmental impact studies have been performed with this product. Available data on the raw materials does not indicate an undue hazard to the environment under anticipated conditions of storage and use. This product contains zinc and may be detrimental to growing plants if misused. Due to its nutritional value, may contribute to eutrophication in bodies of water. Any waste due to spillage or leakage should be contained and disposed of as a Fertilizer, see above under Waste Disposal Methods. To aid our customers in complying with regulatory requirements, SARA Title III hazard categories for this product are indicated in Section I. If the word "YES" appears next to any category, this product may be reportable by you under the requirements of 40 CFR Part 370. Please consult those regulations for details.

SECTION XIII**DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL METHODS: Dispose of product in compliance with all federal, state and local laws concerning health and environment. Waste could be used as a fertilizer applied to soil.

SECTION XIV**TRANSPORTATION DATA**

DOT HAZARD CLASS: Non- Regulated Material
PLACARD: Not Applicable
USDOT Proper Shipping Name: Not applicable (Trade Name: KEY FEEDS DF Zinc)
IATA Proper Shipping Name: Not Applicable
IMO Proper Shipping Name: Not Applicable