



SAFETY DATA SHEET

This SDS complies with REACH 1907/2006 and 2001/58/EC, GHS REVISION 5, OSHA 29CFR 1910.1200

Section 1: Chemical Product and Company Identification

MANUFACTURER'S NAME
The McGregor Company
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DATE PREPARED: August 1, 2017

PRODUCT NAME: **TMC SeedStart Zinc**
FORMULA: Preparation/Mixture
PRODUCT USE: For seed treatment applications.

Section 2: Hazards Identification



GHS Hazard Class Hazardous to the Aquatic Environment—Short Term (Acute) Hazard -- Category 1
Hazardous to the Aquatic Environment—Long Term (Chronic Hazard)--Category 1
Signal word: Warning
Hazard Statement: H400: Very toxic to aquatic life
H410: Very toxic to aquatic life with long lasting effects
Precautionary Statements: Prevention P273: Avoid release to the environment
Response P391: Collect spillage
Storage No Precautionary statement
Disposal P501: Dispose of contents/container in accordance with the waste disposal requirements of your country, state, or local authorities.

Hazards not otherwise classified (HNOC) or not covered by GHS - None

HAZARD CLASSIFICATION: Not classified as hazardous based on IATA, IMDG, and DOT.

FIRE AND EXPLOSION: Not considered flammable or combustible. Product emits toxic fumes when burned.

POTENTIAL HEALTH EFFECTS: < 1 % of mixture consists of ingredients of unknown acute toxicity

APPEARANCE: White suspension

NFPA Rating:

Component	Health (Blue)	Flammability (Red)	Reactivity (Yellow)	Special (White)
TMC SeedStart Zinc	1	0	0	----

Section 3: Composition, Information on Ingredients

PRODUCT COMPOSITION	APPROX %	CAS NO.	EC NUMBER	CANADA DSL
Zinc Oxide	< 80	1314-13-2	215-222-5	Y
Water	< 20	7732-18-5	231-791-2	Y

Some items on this SDS may be designated as trade secrets (TS). Bonafide requests for disclosure of trade secret information to medical personnel must be made in accordance with the provisions contained in 29 CFR 1910.1200 I 1-13.



Section 4: First Aid Measures

Description of First Aid Measures

Inhalation	Remove to fresh air. If not breathing, provide CPR (cardio pulmonary resuscitation). Get immediate medical attention.
Skin Contact	Immediately wash skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing. Get medical attention if irritation develops or persists.
Eye Contact	Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.
Ingestion	Do NOT induce vomiting. Rinse mouth thoroughly with water. Give ½ to one glass of water to dilute the material if victim is alert and not convulsing. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomits, rinse mouth and administer more water. Never give anything to an unconscious person. Get immediate medical attention.

Most important symptoms and effects, both acute and delayed

Symptoms/Injuries after Inhalation	May cause respiratory tract irritation.
Symptoms/Injuries after Skin Contact	May cause mild skin irritation. Symptoms may include redness, drying, defatting, and cracking of the skin.
Symptoms/Injuries after Eye Contact	Causes mild eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/Injuries after Ingestion	Mildly harmful if swallowed.

Indication of any immediate medical attention and special treatment needed

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately.

Section 5: Fire-fighting Measures

Suitable extinguishing media	Use foam, dry chemical, carbon dioxide, or any media suitable to extinguish the surrounding fire
Special hazards arising from the substance or mixture	Containers could explode when heated above 225°F (107°).
Protective actions fire-fighters	Wear standard protective equipment and self contained breathing apparatus for firefighting if necessary.
Further information	Hazardous decomposition products formed under fire conditions. - Zinc/zinc oxides.

Section 6: Accidental Release Measures

Personal precautions, protective equipment, and emergency procedures

Wear proper personal protective equipment. Avoid breathing fumes.

Environmental precautions

Prevent further spillage if safe to do so. Prevent spills or contaminated rinse water from entering sewers or watercourses.

Methods and materials for containment and cleaning up

In case of small spills, absorb with sand or other non-combustible absorbent material and put spilled material in a plastic container. Dispose of according to the requirements of your country, state, or local authorities.

In case of large spills, dike far ahead of liquid spills. Absorb with inert material and put into a plastic container. Dispose of according to the requirements of your country, state, or local authorities.

Reference to other Sections For personal protection reference section 8. For disposal reference section 13.



Section 7: Handling and Storage

Precautions for safe handling

- Use only with adequate ventilation.
- Keep out of reach of children.
- Wear proper protective equipment when handling this material.
- Avoid contact with skin, eyes, or clothing.
- Wash hands and face after handling this material.
- A plastic container should be used for disposal.
- For precautions see section 2.

Conditions for safe storage, including any incompatibilities

- Store upright in a cool, dry place.
- Keep container closed when not in use.
- Keep away from heat, in excess of 225°F (107°).
- Do not store with acid, metallic oxide, amines, and combustible materials.
- Utilize chemical segregation.
- Follow all applicable local regulations for handling and storage.

Specific uses

This product is intended to be used for seed treatments applications.

Section 8: Exposure Controls/Personal Protection

Control Parameters

PRODUCT COMPOSITION	ACGIH TLV	OSHA PEL	NIOSH REL
Zinc Oxide	TWA 2.0 mg/m ³ STEL 10.0 mg/m ³	TWA 5 mg/m ³ (fume) TWA 15 mg/m ³ (total dust) TWA 5 mg/m ³ (resp dust)	Dust: TWA 5 mg/m ³ C 15 mg/m ³ Fume: TWA 5 mg/m ³ ST 10 mg/m ³

Exposure controls

VENTILATION:

Always provide good general, mechanical room ventilation where this chemical/material is used.

SPECIAL VENTILATION CONTROLS:

None

RESPIRATORY PROTECTION:

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or the CEN European Standards (EU). Use a NIOSH/MSHA or European Standard (EN) approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

PROTECTIVE GLOVES:

Neoprene, butyl, or nitrile rubber gloves are recommended.

EYE PROTECTION:

Recommend eye protection using safety glasses or goggles.

SKIN PROTECTION:

Suitable protective clothing to prevent skin contact

WORK/HYGIENE PRACTICES:

Avoid breathing fumes. Avoid contact with eyes. Wash hands after handling.

OTHER EQUIPMENT:

Make safety shower, eyewash stations, and hand washing equipment available in the work area.

Section 9: Physical and Chemical Properties

	PRODUCT CRITERIA
APPEARANCE - COLOR:	White
PHYSICAL STATE:	Suspension
ODOR:	Pungent Odor
ODOR THRESHOLD	No data available
PH	No data available
MELTING POINT/FREEZING POINT:	No data available
INITIAL BOILING POINT AND BOILING RANGE:	> 100°C
FLASH POINT:	No data available
EVAPORATION RATE:	No data available
FLAMMABILITY (Solid, gas)	Not flammable



UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS	Not Measured
VAPOR PRESSURE	No data available
VAPOR DENSITY (AIR = 1)	No data available
RELATIVE DENSITY (@25°C):	1.76
SOLUBILITY(IES)	Soluble in water
OXIDIZING PROPERTIES	No data available
PARTITION COEFFICIENT: n-octanol/water	No data available
AUTO IGNITION TEMPERATURE	No data available
DECOMPOSITION TEMPERATURE	No data available
VISCOSITY	No data available

Section 10: Stability and Reactivity

Reactivity:	Not reactive
Chemical Stability:	Stable under recommended conditions.
Possibility of Hazardous Reactions:	Will not occur under normal temperatures and pressures.
Conditions to Avoid:	High temperatures, high pressure, and incompatible materials.
Incompatibility (Materials to avoid):	This product is compatible with the majority of agricultural remedies. However, it is advisable to do a miscibility test prior to mixing with other chemicals. Do not mix concentrate directly with other herbicides or pesticides concentrates – always dilute first. Do not mix product with oxidizing materials or with any phosphate containing fertilizers.
Hazardous Decomposition Products:	Decomposition products include carbon dioxide, carbon monoxide, and water which may form when heated to decomposition.

Section 11: Toxicological Information

GHS Required Criteria	Toxicity Criteria	Toxicity Information	Comments	Chemical Constituent
Acute Toxicity	LD50 (Oral/Mouse)	>5000 mg/kg	No Mortality	Zinc Oxide
	LD50 (Oral/Rat)	>5000 mg/kg		Zinc Oxide
	LC50(Inhalation/Mouse):	> 5.7 mg/L, 4 hr.		Zinc Oxide
Skin Corrosion/Irritation	20 % w/v zinc oxide was found to be non-irritating to guinea-pig skin.			Zinc Oxide
Serious Eye Damage / Eye Irritation	50 µL bulk volume, 90 min exposure, 18 hr observation on human cornea tissue		Not irritating	Zinc Oxide
Respiratory or Skin Sensitization	Data not available			
Germ Cell Mutagenicity	Data not available			
Carcinogenicity	NTP	Not listed		
	IARC	Not listed		
	OSHA	Not listed		
Reproductive Toxicity	Data not available			
STOT -- Single Exposure	Data not available			
STOT – Repeated Exposure	Data not available			
Aspiration Hazard	Data not available			

STOT = Specific Target Organ Toxicity

Section 12: Ecological Information

		Chemical Constituent
Toxicity:	LC50 Danio rerio (Zebrafish) = 3.31 mg/L, 96hr.	Zinc Oxide
	LC50 Daphnia magna (water flea) = 1.55 mg/L, 48hr.	Zinc Oxide
Persistence and degradability:	No information is available.	
Bioaccumulative potential	No information is available.	
Mobility in soil:	No information is available.	
PBT and vPvB assessment:	PBT/vPvB assessment not available as chemical assessment not required/not conducted	
Other adverse effects:	No information is available.	



Section 13: Disposal Considerations

Waste from residues/unused products: Follow the waste disposal requirements of your country, state, or local authorities.

Contaminated packaging: Contaminated packaging material should be disposed of as stated above for residues and unused product.

Rinsate: Do not dispose of rinse water containing product in a sanitary sewer system or stormwater drainage system.

Section 14: Transport Information

DOT TRANSPORT: Not Regulated

ADR = International Carriage of Dangerous Goods by Road Not Regulated

SEA TRANSPORT: IMDG Not Regulated

AIR TRANSPORT: IATA/ICAO Not Regulated

Section 15: Regulatory Information

TOXIC SUBSTANCE CONTROL ACT (TSCA) STATUS:

This product is in compliance with rules, regulations, and orders of TSCA. All components are either listed on the TSCA inventory or are considered exempt.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 (SARA) TITLE III SECTION 313 SUPPLIER NOTIFICATION:

This regulation requires submission of annual reports of toxic chemical(s) that appear in section 313 of the Emergency Planning and Community Right To Know Act of 1986 and 40 CFR 372. This information must be included in all SDS's that are copied and distributed for the material.

The Section 313 toxic chemicals contained in this product are: None

CALIFORNIA PROPOSITION 65:

This regulation requires a warning for California Proposition 65 chemical(s) under the statute.

The California proposition 65 chemical(s) contained in this product are: None

STATE RIGHT-TO-KNOW TOXIC SUBSTANCE OR HAZARDOUS SUBSTANCE LIST:

Massachusetts's hazardous substance(s):	Zinc Oxide
Pennsylvania	Zinc Oxide
New Jersey	Zinc Oxide

CANADA:

WHMIS-2015: This SDS is in compliance with WHMIS 2015 (HPR / new HPA).

EUROPEAN UNION:

This product has been reviewed for compliance with the following European Community Directives: REACH 1907/2006; Regulation (EC) No 1272/2008 on classification, labeling, and packaging (CLP) of substances and mixtures.

Section 16: Other Information

Initial issue date:	August 1, 2017
Final revision date:	August 1, 2017
Revision Number:	0
Revision explanation:	Initial version
Information Sources:	RTECS, ECHA, REACH, OSHA 29CFR 1910.1200

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