ZincMax Lite

SECTION 1. IDENTIFICATION

Product Identifier	ZincMax Lite
Other Means of Identification	Fertilizer
Recommended Use	The user should seek the advice of the county agricultural representative or a professional agricultural consultant.
Restrictions on Use	None known.
Manufacturer	NutriAg Limited, 39 Gail Grove, Toronto, Ontario, M9M 1M5
Emergency Phone No.	Canutec, 613-996-6666, 24 hours
SDS No.	0035
Date of Preparation	April 20, 2015

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Serious eye damage/eye irritation - Category 1; Reproductive Toxicity - Category 2

GHS Label Elements

Signal Word:
Danger
Hazard Statement(s):
Causes serious eye damage.
Suspected of damaging fertility or the unborn child if swallowed.
Contains 24.5 % of ingredients of unknown toxicity (Dermal and Inhalation)
Precautionary Statement(s):
Prevention:
Do not handle until all safety precautions have been read and understood.
Wear protective gloves/protective clothing/eye protection/face protection.
Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
IF exposed or concerned: Get medical advice/attention.
Storage:
Store locked up.
Disposal:
Dispose of contents/container in accordance with local, regional, national and international regulations.

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture:

Chemical Name	CAS No.	%	Other Identifiers
Zinc Sulphate Monohydrate	7446-19-7	20-25	N/A
Disodium Octaborate Tetrahydrate	12280-03-4	2-3	N/A

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Remove source of exposure or move to fresh air.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes.

Eye Contact

Immediately rinse the contaminated eye(s) with lukewarm, gently flowing water for at least 30 minutes, while holding the eyelid(s) open.

Ingestion

Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Do not induce vomiting. Drink plenty of water. If vomiting occurs naturally, lie on your side in the recovery position. Rinse mouth with water again. Immediately call a Poison Centre or doctor.

First-aid Comments

Get medical advice/attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

Treat Symtomatically.

Immediate Medical Attention and Special Treatment

Target Organs

Eyes, skin, respiratory system.

Medical Conditions Aggravated by Exposure

None known.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

Not combustible. Use extinguishing agents compatible with product and suitable for surrounding fire.

Unsuitable Extinguishing Media

None known.

Specific Hazards Arising from the Chemical

During a fire, corrosive and toxic hydrogen chloride and/or chlorine gases, dipotassium oxide and other toxic and irritating fumes and gases may be formed by thermal decomposition.

Special Protective Equipment and Precautions for Fire-fighters

Approach fire from upwind to avoid hazardous vapours or gases.
Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

Restrict access to area until completion of cleanup. Ensure cleanup is conducted by trained personnel only. Wear adequate personal protective equipment.

Environmental Precautions

Do not allow into any sewer, on the ground or into any waterway.

Methods and Materials for Containment and Cleaning Up

Small spills or leaks: contain and soak up spill with absorbent that does not react with spilled product. Place used absorbent into suitable, covered, labelled containers for disposal. Large spills or leaks: dike spilled product to prevent runoff. Remove or recover liquid using pumps or vacuum equipment. Do not return spilled product to its original container.

Other Information

Report spills to local health, safety and environmental authorities, as required.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

Wash hands thoroughly after handling this material. Do not eat, drink or smoke while handling this product.

Conditions for Safe Storage

Store in an area that is: well-ventilated. Store in the original, labelled, shipping container. Protect from freezing. Transfer equipment should be constructed of chemical-resistant plastic or stainless steel. Do not store in aluminum or steel containers.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

	ACGIH TLV®		OSHA PEL		AIHA WEEL	
Chemical Name	**TWA**	**STEL**	**TWA**	**Ceiling**	**8-hr TWA**	**TWA**
Disodium Octaborate Tetrahydrate	10 mg/m3			15 mg/m3		
Zinc Sulphate Monohydrate				15 mg/m3		

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. STEL = Short-term Exposure Limit.

Appropriate Engineering Controls

Use local exhaust ventilation, if general ventilation is not adequate to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Wear chemical safety goggles.

Skin Protection

Not required, if used as directed.

Respiratory Protection

In case of inadequate ventilation or risk of inhalation of vapours, use suitable respiratory equipment.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance	Light yellow.
Odour	Odourless
Odour Threshold	Not available
pH	6 - 7 (1% solution)
Melting Point/Freezing Point	Not available (melting); Not available (freezing)
Initial Boiling Point/Range	Not available
Flash Point	Not available
Evaporation Rate	Not available
Flammability (solid, gas)	Not available
Upper/Lower Flammability or Explosive Limit	Not available (upper); Not available (lower)

Vapour Pressure	Not available
Vapour Density (air = 1)	Not available
Relative Density (water = 1)	1.29 - 1.30 at 20 ºC (68 ºF)
Solubility	Soluble in water
Partition Coefficient, n-Octanol/Water (Log Kow)	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity	Not available (kinematic); Not available (dynamic)

Other Information

Physical State	Liquid
Bulk Density	Not available

SECTION 10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions of use.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None expected under normal conditions of storage and use.

Conditions to Avoid

Prolonged exposure to high temperatures. Freezing. Incompatible materials.

Incompatible Materials

Strong acids (e.g. hydrochloric acid), strong bases (e.g. sodium hydroxide), oxidizing agents (e.g. peroxides). Aluminum alloys, carbon steel, lead.

Hazardous Decomposition Products

During a fire, toxic carbon monoxide, carbon dioxide and other irritant gases and vapour, which may include unburned acid and toxic constituents may be generated.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Skin contact; eye contact; ingestion.

Acute Toxicity

Chemical Name	LC50	LD50 (oral)	LD50 (dermal)
Disodium Octaborate Tetrahydrate	> 2.0 mg/L (rat)	2500 mg/kg (rat)	> 2000 mg/kg (rabbit)
Zinc Sulphate Monohydrate		1538 mg/kg (rat)	

Skin Corrosion/Irritation

Not Classified.

Serious Eye Damage/Irritation

Causes serious eye damage.

STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

Not irritating to the respiratory tract, unless it is introduced into the atmosphere as a spray or mist.

Skin Absorption

Not Classified

Ingestion

Harmful if swallowed.

Aspiration Hazard

Not Classified

STOT (Specific Target Organ Toxicity) - Repeated Exposure

Not classified.

Respiratory and/or Skin Sensitization

Not Classified

Carcinogenicity

Not Classified

Reproductive Toxicity

Development of Offspring

Not Classified

Sexual Function and Fertility

Not Classified

Effects on or via Lactation

Not Classified

Germ Cell Mutagenicity

Not Classified

Interactive Effects

Not Classified

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Acute Aquatic Toxicity

Chemical Name	LC50 Fish	EC50 Crustacea	ErC50 Aquatic Plants	ErC50 Algae
Disodium Octaborate Tetrahydrate	79.7 mg/L (Pimephales promelas (fathead minnow); 96-hour)			
Zinc Sulphate Monohydrate	4.76 mg/L (48-hour)			

Persistence and Degradability

Not Established

Bioaccumulative Potential

Not Established.

Mobility in Soil

Not established.

Other Adverse Effects

Not Classified

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Dispose in accordance with all applicable federal, provincial, and local regulations.

SECTION 14. TRANSPORT INFORMATION

Not regulated under Canadian TDG Regulations. Not regulated under US DOT Regulations.

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

Listed on the DSL. (Zinc Sulphate Monohydrate).

SECTION 16. OTHER INFORMATION

Date of Preparation	April 20, 2015
Revision Indicators	Not applicable.
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