

Safety Data Sheet

according to WHS Regulations

Print date: 18.09.2023

Revision date: 18.09.2023

1 Identification

Product Name: ZincBoost**Other Means of Identification:** Mixture**Recommended Use of the Chemical and Restriction on Use:** Agricultural fertiliser**Details of Manufacturer or Importer:**

Nutrien Ag Solutions
 Level 5, Building A
 26 Talavera Road
 Macquarie Park NSW 2113

Phone Number: (02) 9889 5400**Emergency telephone number:** 1800 033 111

2 Hazard(s) Identification

Hazardous Nature:

Classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) and Safe Work Australia criteria.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (7th edition), IATA and IMDG/IMSBC.

Not subject to the ADG Code when transported in Australia by Road or Rail in packagings that do not incorporate a receptacle exceeding 500 kg(L); or IBCs (refer to SP AU01). However if transported by Air or Sea, this provision does not apply.



Corrosion

Eye Damage 1

H318 Causes serious eye damage.



Environment

Aquatic Acute 1

H400 Very toxic to aquatic life.

Aquatic Chronic 1

H410 Very toxic to aquatic life with long lasting effects.



Skin Corrosion/Irritation 2 H315 Causes skin irritation.

Signal Word Danger**Hazard Statements**

H315 Causes skin irritation.

H318 Causes serious eye damage.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P264 Wash thoroughly after handling.

P273 Avoid release to the environment.

P280 Wear eye protection / face protection.

P302+P352 IF ON SKIN: Wash with plenty of water.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310 Immediately call a POISON CENTER/doctor.

P321 Specific treatment (see on this label).

(Contd. on page 2)

Safety Data Sheet

according to WHS Regulations

Print date: 18.09.2023

Revision date: 18.09.2023

Product Name: ZincBoost

(Contd. of page 1)

P362+P364	Take off contaminated clothing and wash it before reuse.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

3 Composition and Information on Ingredients

Chemical Characterization: Mixtures
Description: Mixture of substances listed below with nonhazardous additions.

Hazardous Components:		
CAS: 7733-02-0	Zinc sulfate ⚠ Eye Damage 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Toxicity (Oral) 4, H302	20-25%
CAS: 3458-72-8	Triammonium citrate ⚠ Eye Irritation 2A, H319	15-20%
CAS: 60-00-4	Edetic acid ⚠ Eye Irritation 2A, H319	5-10%
CAS: 7664-41-7	Ammonia ⚠ Press. Gas C, H280; ⚠ Acute Toxicity (Inhalation) 3, H331; ⚠ Skin Corrosion/Irritation 1B, H314; ⚠ Aquatic Acute 1, H400; ⚠ Acute Toxicity (Oral) 4, H302; ⚠ Flammable Gases 2, H221	0.1-1%

4 First Aid Measures

Inhalation:

If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention if breathing problems develop.

Skin Contact:

In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if irritation develops and persists.

Eye Contact:

All eye exposures require medical evaluation following decontamination. In case of eye contact, immediately rinse with water or saline for minimum of 30 minutes. Longer irrigation time is preferred if possible. Seek immediate medical attention.

Ingestion:

If swallowed, do not induce vomiting. Immediately rinse mouth with water. Give a glass of water to drink in small sips. Never give anything by mouth to an unconscious person. Seek medical attention.

Symptoms Caused by Exposure:

Inhalation: May cause respiratory irritation.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye damage. Corrosive to eyes.

Ingestion: May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.

5 Fire Fighting Measures

Suitable Extinguishing Media: Use fire extinguishing methods suitable to surrounding conditions.

Specific Hazards Arising from the Chemical:

Hazardous combustion products include oxides of carbon, oxides of nitrogen, oxides of sulfur and metal oxides.

Product is not flammable.

Containers close to fire should be removed only if safe to do so. Use water spray to cool fire exposed containers.

Prevent run-off from fire fighting entering drains or water courses.

HAZCHEM Code: •3Z

(Contd. on page 3)

Safety Data Sheet

according to WHS Regulations

Print date: 18.09.2023

Revision date: 18.09.2023

Product Name: ZincBoost

(Contd. of page 2)

Special Protective Equipment and Precautions for Fire Fighters:

When fighting a major fire wear self-contained breathing apparatus and protective equipment.

6 Accidental Release Measures**Personal Precautions, Protective Equipment and Emergency Procedures:**

Wear approved respiratory protection, chemical resistant gloves, protective clothing and safety boots. Evacuate all non-essential personnel from affected area. Do not breathe vapours. Ensure adequate ventilation.

Environmental Precautions:

In the event of a major spill, prevent spillage from entering drains or water courses. Inform respective authorities in case of seepage into water course or sewage system.

Methods and Materials for Containment and Cleaning Up:

Stop leak if safe to do so and absorb spill with sand, earth, vermiculite or some other absorbent material. Collect the spilled material and place into a suitable container for disposal.

7 Handling and Storage**Precautions for Safe Handling:**

Use of safe work practices are recommended to avoid eye or skin contact and inhalation of vapours or mists. Use only outdoors or in a well-ventilated area.

Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet. Wash contaminated clothing and other protective equipment before storage or re-use. Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Conditions for Safe Storage:

Store in a cool, dry and well ventilated area, away from direct sunlight. Keep in original container, tightly closed when not in use. Protect from heat, sparks, open flames and other sources of ignition. Keep away from strong oxidising agents, strong acids, hypochlorites and halogenated compounds.

8 Exposure Controls and Personal Protection**Exposure Standards:****CAS: 7664-41-7 Ammonia**

WES	STEL: 24 mg/m ³ , 35 ppm TWA: 17 mg/m ³ , 25 ppm
-----	---

Engineering Controls:

Ensure adequate ventilation of the working area, keeping airborne concentrations below occupational exposure standards.

Respiratory Protection:

Use an approved vapour respirator suitable for protection against ammonia under conditions where exposure to the substance is apparent (e.g. generation of high concentrations of mist or vapour, inadequate ventilation, development of respiratory tract irritation) and engineering controls are not feasible. See Australian Standards AS/NZS 1715 and 1716 for more information.

Skin Protection:

Chemical-resistant gloves. See Australian/New Zealand Standard AS/NZS 2161 for more information.

When selecting gloves for use against certain chemicals, the degradation resistance, permeation rate and permeation breakthrough time should be considered.

Occupational protective clothing (depending on conditions in which it has to be used, in particular as regards the period for which it is worn, which shall be determined on the basis of the seriousness of the risk, the frequency of exposure to the risk, the characteristics of the workstation of each worker and the performance of the protective clothing). See Australian/New Zealand Standard AS/NZS 4501 for more information.

(Contd. on page 4)

Safety Data Sheet

according to WHS Regulations

Print date: 18.09.2023

Revision date: 18.09.2023

Product Name: ZincBoost

(Contd. of page 3)

Eye and Face Protection:

Safety glasses with top and side shields or goggles. See Australian/New Zealand Standards AS/NZS 1336 and 1337 for more information.

9 Physical and Chemical Properties

Appearance:

Form:	Liquid
Colour:	Colourless to light yellow
Odour:	Ammonia-like
Odour Threshold:	No information available
pH-Value:	9.5 - 10.2
Melting point/freezing point:	No information available
Initial Boiling Point/Boiling Range:	No information available
Flash Point:	Does not flash up to boiling
Flammability (solid, gas):	Not applicable
Auto-ignition Temperature:	No information available
Decomposition Temperature:	No information available
Explosion Limits:	
Lower:	No information available
Upper:	No information available
Vapour Pressure:	No information available
Density:	1.36 g/cm ³
Vapour Density:	No information available
Evaporation Rate:	No information available
Solubility in Water:	Miscible
Partition Coefficient (n-octanol/water):	No information available

10 Stability and Reactivity

Possibility of Hazardous Reactions:

If mixed with chlorine or hypochlorites, it may form nitrogen trichloride which may explode spontaneously in air.

Chemical Stability: Stable at ambient temperature and under normal conditions of storage and use.

Conditions to Avoid: Heat, sparks, open flames, hot surfaces and direct sunlight.

Incompatible Materials: Strong oxidising agents, strong acids, hypochlorites and halogenated compounds.

Hazardous Decomposition Products:

Oxides of carbon, oxides of nitrogen, oxides of sulfur and metal oxides.

11 Toxicological Information

Toxicity:**LD50/LC50 Values:****CAS: 7733-02-0 Zinc sulfate**

Oral	LD50	574 mg/kg (Rattus norvegicus (rat))
Dermal	LD50	>2,000 mg/kg (Rattus norvegicus (rat))

CAS: 7664-41-7 Ammonia

Oral	LD50	350 mg/kg (Rattus norvegicus (rat))
Inhalation	LC50/4 h	2,000 mg/l (Rattus norvegicus (rat))

Acute Health Effects

Inhalation: May cause respiratory irritation.

Skin: Causes skin irritation.

(Contd. on page 5)

Safety Data Sheet

according to WHS Regulations

Print date: 18.09.2023

Revision date: 18.09.2023

Product Name: ZincBoost

(Contd. of page 4)

Eye: Causes serious eye damage. Corrosive to eyes.**Ingestion:** May cause gastrointestinal irritation, nausea, diarrhoea and vomiting.**Skin Corrosion / Irritation:** Causes skin irritation.**Serious Eye Damage / Irritation:** Causes serious eye damage.**Respiratory or Skin Sensitisation:** Based on classification principles, the classification criteria are not met.**Germ Cell Mutagenicity:** Based on classification principles, the classification criteria are not met.**Carcinogenicity:** Based on classification principles, the classification criteria are not met.**Reproductive Toxicity:** Based on classification principles, the classification criteria are not met.**Specific Target Organ Toxicity (STOT) - Single Exposure:**

Based on classification principles, the classification criteria are not met.

Specific Target Organ Toxicity (STOT) - Repeated Exposure:

Based on classification principles, the classification criteria are not met.

Aspiration Hazard: Based on classification principles, the classification criteria are not met.**Chronic Health Effects:** No information available**Existing Conditions Aggravated by Exposure:** No information available

12 Ecological Information

Ecotoxicity:**Aquatic toxicity:**

Very toxic to aquatic life with long lasting effects.

CAS: 7733-02-0 Zinc sulfate

EC50/48 h (static) 1.4 mg/l (Daphnia magna (water flea)) (OECD Test Guideline 202)

EC50/72 h 64.8 mg/l (Chlorophyta (green algae))

EC50/3 h (static) 5.2 mg/l (Activated sludge) (OECD Test Guideline 209)

LC50/96 h (static) 0.33 mg/l (Pimephales promelas (fathead minnow))

CAS: 7664-41-7 Ammonia

EC50/48 h 1.16 mg/l (Daphnia magna (water flea))

LC50/96 h 0.068 mg/l (Pimephales promelas (fathead minnow))

LC50/48 h (static) 101 mg/l (Daphnia magna (water flea))

Persistence and Degradability: No data available on finished product.**Bioaccumulative Potential:** No data available on finished product.**Mobility in Soil:** No data available on finished product.**Other adverse effects:** No further relevant information available.

13 Disposal Considerations

Disposal Methods and Containers:

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

Dispose according to applicable local and state government regulations.

Special Precautions for Landfill or Incineration:

Please consult your state Land Waste Management Authority for more information.

(Contd. on page 6)

Safety Data Sheet

according to WHS Regulations

Print date: 18.09.2023

Revision date: 18.09.2023

Product Name: ZincBoost

(Contd. of page 5)

14 Transport Information

UN Number	
ADG, IMDG, IATA	UN3082
Proper Shipping Name	
ADG, IMDG, IATA	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Zinc sulfate)
Dangerous Goods Class	
ADG Class:	9
Packing Group:	
ADG, IMDG, IATA	III
Marine pollutant:	Yes
EMS Number:	F-A,S-F
Hazchem Code:	•3Z
Transport/Additional information:	Not subject to the ADG Code when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg(L) or IBCs. (refer to SP AU01)
Excepted quantities (EQ):	E1
Limited Quantities:	5L

15 Regulatory Information

Australian Inventory of Industrial Chemicals:

All ingredients are listed.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Poison Schedule:

Poisons Schedule: 6

16 Other Information

Date of Preparation or Last Revision: 18.09.2023

Prepared by: MSDS.COM.AU Pty Ltd

www.msds.com.au

Abbreviations and acronyms:

ADG: Australian Dangerous Goods

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

IARC: International Agency for Research on Cancer

STEL: Short Term Exposure Limit

TWA: Time Weighted Average

NES: National Exposure Standard (Safe Work Australia - Workplace Exposure Standards For Airborne Contaminants)

Flammable Gases 2: Flammable gases – Category 2

Press. Gas C: Gases under pressure – Compressed gas

Acute Toxicity (Oral) 4: Acute toxicity – Category 4

Acute Toxicity (Inhalation) 3: Acute toxicity – Category 3

Skin Corrosion/Irritation 1B: Skin corrosion/irritation – Category 1B

Skin Corrosion/Irritation 2: Skin corrosion/irritation – Category 2

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Aquatic Acute 1: Hazardous to the aquatic environment, short-term (Acute). Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment, long-term (Chronic). Category 1

(Contd. on page 7)

Safety Data Sheet

according to WHS Regulations

Print date: 18.09.2023

Revision date: 18.09.2023

Product Name: ZincBoost

(Contd. of page 6)

Disclaimer

This SDS is prepared in accord with the Safe Work Australia document "Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals - July 2020".

The information contained in this safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Nutrien Ag Solutions makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.