Safety Data Sheet

Molboro X
SDS No: SDS455/000
Effective Date: 26/09/2022
Revision no: 000
Product Code: 455

SECTION 1
COMPANY AND CHEMICAL PRODUCT IDENTIFICATION

Product Name: Molboro X
Chemical Identifier: Boric Acid, Zinc Phosphite and Manganese Phosphite
Product Use: Fertiliser
Restrictions on use: Agriculture

Supplier: **Nutrico SA (Pty) Ltd. (Co. Reg. No. 2003/008663/07)**
Cedar Lake Industrial Estate,
1 Harvest Place, Clayville, Olifantsfontein, 1666, Gauteng, RSA
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Griffon Poison Information: +27 82 446 8946

SECTION 2
HAZARDS IDENTIFICATION

Classification as defined by Regulation (EC) 1272/2008 [CLP] EU & SANS 10234:2008

Hazard Classes	Hazard Category	Hazard Statement Code	Hazard Statements
Health			
Acute toxicity (oral)	-	-	-
Acute toxicity (dermal)	-	-	-
Acute toxicity (inhalation)	-	-	-
Skin corrosion/irritation	1	H314	Causes severe skin burns and eye damage
Serious eye damage/eye irritation	1	H318	Causes serious eye damage
Reproductive toxicity	1B	H360FD	May damage fertility; May damage the unborn child
STOT RE	-	-	-
Environmental			
Aquatic (acute)	-	-	-
Aquatic (chronic)	Chronic 4	H413	May cause long lasting harmful effects to aquatic life

Label elements: labelling as defined by Regulation (EC) 1272/2008 [CLP] EU & SANS 10234:2008

Hazard pictograms

Signal word - Danger

Precautionary statements

P102	Keep out of reach of children.
P203	Obtain, read and follow all safety instructions before use.
P260	Do not breathe vapors.
P264+P265	Wash hands thoroughly after handling. Do not touch eyes.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P302+P361+P354	IF ON SKIN: Take off Immediately all contaminated clothing. Immediately rinse with water for several minutes.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P354+P338	IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P363	Wash contaminated clothing before reuse.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

Special labelling of certain mixtures – None known

Other hazards – None known

Toxicity: Classification according to GHS: Not classified

SECTION 3
COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Declared Active Ingredients:

Chemical name	CAS No.	EC No.	Conc. %w/w	Classification Regulation (EC) 1272/2008
Boric Acid	10043-35-3	233-139-2	10 - 30	H360FD
Zinc Phosphite	14332-59-3	238-279-8	<5	H314, H318
Manganese Phosphite	22775-65-1	245-215-2	<5	H314, H413

SECTION 4
FIRST AID MEASURES

Remove the victim from the area of exposure. Wash off remaining material with plenty of water. In the event of any complaints or symptoms, avoid further exposure. Immediately consult a doctor.

INHALATION: This product is not deemed to be an inhalation toxicant, however, in cases of inhalation toxication, remove person from contaminated area to fresh air.

SKIN: If in contact with skin, remove contaminated clothing and shoes. Gently wipe off excess chemical. Wash skin gently and thoroughly with water and non-abrasive soap. Seek medical attention immediately.

EYES: If in contact with eyes, flush eyes with clean water for at least 15 – 20 minutes. Lift eyelids to facilitate irrigation. If present, remove contact lenses after 5 minutes and continue rinsing. Seek medical attention immediately.

INGESTION: This product is not deemed to be an ingestion toxicant; however, care needs to be taken when handling this product. Seek medical attention or call a poison control centre for treatment advice. Do not induce vomiting unless instructed to do so by a poison control centre or doctor. Do not give anything by mouth to an unconscious person. If the person is alert, rinse mouth thoroughly with water and give 2 to 3 glasses of water to drink.

IMPORTANT ACUTE EFFECTS: Causes severe skin burns and eye damage.
Causes serious eye damage.

IMPORTANT DELAYED EFFECTS: May damage fertility and the unborn child.

NOTE TO PHYSICIAN: This product contains Phosphorous Acid, Nitric Acid, Acetic Acid, Boric Acid, Monoethanolamine Borate, Zinc Phosphite and Manganese Phosphite, treat symptomatically and supportively.

SECTION 5
FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Use dry chemical, water fog or foam.

Unsuitable Extinguishing Media: High volume water jet.

Specific hazards: None.

Special Fire Fighting Procedures: Remove spectators from surrounding area. Isolate the fire area and evacuate all personnel downwind of the fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Remove container from fire area if possible and without risk. Do not use high volume water jet, due to contamination risk. Do not scatter the burning material. Water can be used to cool unaffected containers but must be contained for later disposal. Contain fire control agents for later disposal. Avoid pollution of waterways by run-off from the site.

Personal protective equipment: Wear NIOSH/MSHA approved self-contained breathing apparatus and full protective gear.

SECTION 6
ACCIDENTAL RELEASE MEASURES

Personal Precautions: Avoid contact with skin, eyes, and mouth. Do not breathe in spray mist or fumes. Ventilate area of spill or leak, especially in contained areas.

Protective equipment: Refer to Section 8 for personal protective equipment to be worn during containment and clean-up of a spill involving this product.

Emergency procedures: Alert firefighting personnel, evacuate unprotected personnel and animals.

Environmental Precautions: Prevent spilled product from entering sewers, waterways or ground water. Any spillages or uncontrolled discharges into water sources should be reported immediately to the police and the Department of Water/Environmental Affairs.

Methods & Materials for Containment: Contain spilled product by diking area with sand or earth.

Methods & Materials for Clean-up: Cover contained spill with an inert absorbent material such as sand, vermiculite, earth or other appropriate material. Vacuum, scoop, or sweep up material and place the material into a clean, dry, sealable container. Label containers with the contents and dispose of according to local regulations. Do not place spilled material back in original container. Do not re-use spill material. Collect washings and add to the drums already collected. Do not flush spilled material or washings into drains or waterways. To decontaminate the spill area, tools and equipment, wash with water and suitable detergent. See section 13 for disposal considerations.

SECTION 7
HANDLING AND STORAGE

HANDLING

Precautions for safe handling: Avoid contact with skin, eyes, and mouth. Ensure adequate ventilation during handling and use. Do not handle broken packages without protective equipment. Immediately clean up spills that occur during handling. Keep containers closed when not in use.

General occupational hygiene: Practice good hygiene when using this material. Wash hands before eating, drinking, chewing gum, smoking, using the toilet or applying cosmetics. Worker should shower at the end of each workday. Launder all clothing before it is re-used

STORAGE

Conditions for safe storage: Keep out of reach of unauthorised persons, children and animals. Store in its original, labelled container, tightly closed, in an isolated, dry, cool and well- ventilated area. Avoid direct sunlight for prolonged periods, don't let product freeze. Not to be stored next to foodstuffs, feed and water supplies.

Incompatible substances and mixtures: Refer to product label.

Packaging material: Plastic containers and drums.

SECTION 8
EXPOSURE CONTROLS AND PERSONAL PROTECTION

Occupational exposure limits:

Limit value type (country)	Substance name	EC No.	CAS No.	Occupational exposure limit value		Monitoring & observation processes	Peak limitation	Source
				Long term	Short term			
TWA	Boric Acid	233-139-2	10043-35-3	-	6 mg/cu m (inhalable fraction)	-	-	Hazardous Substance Data Bank

ENGINEERING CONTROLS: It is essential to provide adequate ventilation. The measures appropriate for a particular worksite depend on how this material is used and on the extent of exposure. Local Exhaust: Provide general or local exhaust ventilation systems to maintain airborne concentrations below OELs or other specified exposure limits. Local exhaust ventilation is preferred. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: For most well-ventilated conditions, no respiratory protection should be needed. If used in a poorly ventilated area (airborne concentrations exceed exposure limits), use a NIOSH approved air-purifying respirator.

Hand Protection: The use of chemically protective gloves is recommended to prevent against skin contact.

Eye Protection: The use of chemical safety goggles is recommended to prevent against eye contact. Contact lenses are not protective eye devices.

Skin and Body Protection: Wear appropriate protective clothing; boots, hat and equipment to prevent repeated or prolonged skin contact with this substance.

Emergency eyewash: Where there is any possibility that a handler's eyes may be exposed to this substance; an eye wash fountain should be provided or appropriate alternative within the immediate work area for emergency use.

SECTION 9
PHYSICAL AND CHEMICAL PROPERTIES

Property	Value/description	Method

Physical state	Liquid	Visual
Colour	Yellow	Visual
Odour	Faint	Organoleptic
pH (1% aqueous dilution)	7.6 - 8.4	CIPAC MT 75.3
Melting/Freezing point	Not available	
Boiling point	Not available	
Flash point	Not available	
Flammability	Not available	
Vapour pressure	Not available	
Relative Vapour Density	Not available	
Density	1.250 - 1.382 g/L	Pycnometer
Solubility	Soluble in water	
n-Octanol/Water partition coefficient	Not available	
Auto-ignition temperature	Not available	
Decomposition temperature	Not available	
Viscosity	Not available	
Explosive properties	Not explosive	
Oxidising properties	Not oxidative	

SECTION 10
STABILITY AND REACTIVITY

Chemical Stability: The product is stable for two years at ambient temperature and pressure, under normal storage and handling conditions. Avoid storage under extreme temperatures and conditions. Store below 50 °C, preferably below 30 °C, and not for prolonged periods in direct sunlight.

Reactivity: Stable and non-reactive under normal conditions.

Possibility of Hazardous Reactions: Unlikely to occur.

Conditions to Avoid: Extreme heat or exposure to flames.

Incompatible Materials: Refer to product label.

Hazardous Decomposition Products: None known.

SECTION 11
TOXICOLOGICAL INFORMATION

GHS Classification: Causes severe skin burns and eye damage (H314)

Causes serious eye damage (H318)
May damage fertility; May damage the unborn child (H360FD)

Toxicity	Effective dose/ concentration	Value	Species	Method
Acute Oral	LD_{50}	Not classified	Rat	GHS ATE Calculation
Acute Dermal	LD_{50}	Not classified	Rabbit	
Acute Inhalation	LC_{50}	Not classified	Rat	
Skin irritation	Causes severe skin burns and eye damage			
Eye damage/irritation	Causes serious eye damage			
Skin sensitization	Not classified as a skin sensitizer			
Respiratory sensitization	Not known to be a respiratory sensitizer			
Mutagenicity/Genotoxicity:	Not classified as a mutagen and not genotoxic			
Carcinogenicity	Not classified as a carcinogen			
Reproductive toxicity	May damage fertility and the unborn child			
Single target organ toxicity:	Not classified as a single target organ toxicant			
Chronic effects (e.g developmental)	None known			

SECTION 12
ECOLOGICAL INFORMATION

GHS Classification: May cause long lasting harmful effects to aquatic life (H413)

Toxicity	Effect dose/ concentration	Value	Test duration	Species	Method
Aquatic		Not available	-	-	-
Fish	LC_{50}				
	NOEC				
Crustacea	EC_{50}				
	NOEC				
Algae	EC_{50}				

Terrestrial		Not available	-	-	-
Birds	LD_{50}				
	LC_{50}				
Bees	LD_{50} (contact)				
	LD_{50} (oral)				
Earthworms/Arthropods	-				

ENVIRONMENTAL EFFECTS

Persistence and degradability: Persistence is unlikely.

Bio-accumulative Potential: Highly water soluble materials are unlikely to bioaccumulate to any significant degree, and borate species are all present essentially as undissociated boric acid at neutral pH. The octanol/water partition coefficient for boric acid has been measured as 0.175, indicating low bioaccumulation potential.

Mobility in soil: Due to its water solubility, it is likely to be mobile in the soil.

Other adverse effects: Not determined.

SECTION 13
DISPOSAL CONSIDERATIONS

Hazardous waste according to Directive 2008/98/EC (waste framework directive).

Waste: Open dumping or burning of this product is prohibited. Waste resulting from the use of this product cannot be reused or re-processed. Never pour untreated waste or surplus product into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal. The product may be taken to a registered waste disposal site or incineration plant.

Container: Emptied containers retain product residues. Do not re-use the empty container for any other purpose. Triple rinse empty containers by inverting the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter, rinse the container three times with a volume of water equal to a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner. Destroy the container by perforating and flattening and dispose of through an approved waste dump site, incineration plant or recycling company. Observe all labelled safeguards until container is destroyed.

SECTION 14
TRANSPORT INFORMATION

UN Number: 1760

Road Transport ADR/IRD:
Class: 8
Packaging group: III
UN Proper Shipping Name: Corrosive Liquid, N.O.S.

Maritime Transport IMDG/IMO:
Class: 8
Packaging group: III
UN Proper Shipping Name: Corrosive Liquid, N.O.S.
Marine Pollutant (Y/N): Yes

Air Transport IATA/ICAO:
Class: 8
Packaging group: III
UN Proper Shipping Name: Corrosive Liquid, N.O.S.

Special/Environmental Precautions: None.

Transport in bulk: Not available.

SECTION 15
REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture: OHSA 1993 Regulations

for Hazardous Chemical Substances.

Relevant information regarding restrictions:	None.
EU regulation:	Regulation EC1272/2008
Other national regulations:	None.
Chemical Safety Assessment carried out:	No chemical safety assessment was carried out for this product.

SECTION 16
OTHER INFORMATION

PACKAGING: Packed in 5 and 25 L plastic containers and drums, labelled according to South African regulations and guidelines.

DISCLAIMER:

The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage and use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.