

Safety Data Sheet

PHOSTEMIC XTRA L10125 (Act No 36 of 1947)

1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	PHOSTEMIC XTRA
Other means of identification:	Phosphorous acid/Cymoxanil/Dimethomorph 320 SC
Chemical Name:	Phosphorous acid: phosphonic acid Cymoxanil: 2-cyano-N-[(ethylamino)carbonyl]-2-(methoxyimino)acetamide Dimethomorph: 4-(3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl)morpholine
Recommended use:	Fungicide
Restrictions on use:	Agriculture
UN No:	2902
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za
Emergency Number:	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 TYGERBERG: 021 931 6129 RED CROSS: 021 689 5227 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
2) HAZARDS IDENTIFICATION	
Classification of the substance/mixture:	Acute Toxicity (Oral) Category 4 Acute Toxicity (Dermal) Category 4 Acute Toxicity (Inhalation) Category 3 Skin Corrosive Category 1 Eye Damage Category 1 Skin Sensitization Category 1 Reproductive Toxicity Category 2 STOT RE Category 2 Aquatic Acute Category 1 Aquatic Chronic Category 1
Label Elements: Globally Harmonized System, EU (GHS):	<p>Pictograms:</p> <p>Signal Word: Danger</p> <p>Hazard Statements: H224: Extremely flammable liquid and vapour. H302: Harmful if swallowed. H314: Causes severe skin burns and eye damage. H317: May cause an allergic skin reaction.</p>

<p>According to Directive 67/548/EEC No. 1272/2008 [CLP]</p>	<p>H318: Causes serious eye damage. H332: Harmful if inhaled. H361fd: Suspected of damaging the unborn child. H373: May cause damage to organs through prolonged or repeated damage. H400: Very toxic to aquatic life. H410: Very toxic to aquatic life with long lasting effects. H411: Toxic to aquatic life with long lasting effects.</p> <p>Precautionary Statements: P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P260: Do not breathe dust/mist/spray. P262: Do not get in eyes, on skin, or on clothing. P270: Do not eat, drink or smoke when using the product. P272: Contaminated work clothing should not be allowed out of the workplace. P273: Avoid release to the environment. P280: Wear protective gloves, protective clothing, eye protection. P321: Specific treatment (See First aid measures on this label) P362+P364: Take off contaminated clothing and wash it before reuse. P405: Store locked up.</p> <p>Hazard Symbol(s): Xn – Harmful N – Dangerous for the environment F+ - Flammable (individual components; see below) C – Corrosive</p> <p>Risk – Phrase(s): R12: Extremely flammable. R20/22: Harmful by inhalation and if swallowed. R22: Harmful if swallowed. R34: Causes burns. R35: Causes severe burns. R43: May cause sensitization by skin contact. R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.</p> <p>Safety – Phrase(s): S1/2: Keep locked up and out of the reach of children. S16: Keep away from sources of ignition — No smoking. S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S29: Do not empty into drains. S36/37/38: Wear suitable protective clothing, gloves and respiratory equipment. S36/37/39: Wear suitable protective clothing, gloves and eye/face protection. S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S60: This container and its contents must be disposed of as hazardous waste. S61: Avoid release to the environment. Refer to special instructions/Safety datasheets.</p>
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3) COMPOSITION / INFORMATION ON INGREDIENTS:

Mixture:

Chemical name	Composition	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)	Classification according to 67/548/EEC
Phosphorous acid	240 g/L	13598-36-2	237-066-7	Acute Tox. 4 (H302) Skin corr. 1A (H314)	Xn, C, R22, R35; S1/2, S26, S36/37/39, S45

Cymoxanil	40 g/L	57966-95-7	261-043-0	Acute Tox. 4 (H302) Skin Sens.1 (H317) Repr. 2 (H361fd) STOT RE 2 (H373) Aquatic Acute 1 (H400) Aquatic Chronic 1 (H410)	Xn, N, R22, R43, R50-53; S2, S36/37, S60, S61
Dimethomorph	40 g/L	110488-70-5	404-200-2	Aquatic Chronic 2 (H411)	N, R51-53; S 61
DMA	< 25%	124-40-3	204-697-4	Flam. Liq. 1 (H224) Skin Corr. 1B (H314) Eye Dam. 1 (H318) Acute Tox 4. (H302, H332)	F+, Xn, C, R12, R20/22, R34; S1/2, S3 S16, S26, S29, S36/37/39, S45
MEG	< 5%	107-21-1	203-473-3	Acute Tox. 4 (H302)	Xn, R22; S2

4) FIRST AID MEASURES

Description of First-Aid Measures:

Inhalation:

Remove victim to well ventilated area and loosen clothing around the neck. Keep victim calm and warm. Qualified personnel should administer oxygen. **Seek medical attention immediately.**

Skin contact:

Gently wipe off excess chemical. Immediately flush skin with water for at least 15 minutes, remove contaminated clothing and shoes and thoroughly wash body with non-abrasive soap and water. **Seek medical attention immediately.** Wash contaminated clothing before re-use. Persons who become sensitized may require medical management.

Eye contact:

Immediately flush eyes with plenty of water. Remove contact lenses, if worn, and flush eyes with water for at least 15 minutes, holding eyelids open. **Seek medical assistance immediately.**

Ingestion:

If swallowed, do not induce vomiting: seek medical advice immediately and show this document. Never give anything by mouth to an unconscious person. If victim is alert, rinse mouth thoroughly with water and give victim large volumes of water or milk to drink. Keep victim calm. Qualified personnel should administer oxygen.

Most important symptoms and effects, both acute and delayed:

None known.

Indication of any immediate medical attention and special treatment needed:

Symptomatic treatment, no specific antidote known. If product has been ingested, avoid gastric lavage and emesis. Give victim large volumes of water or milk to drink.

5) FIRE-FIGHTING MEASURES

Extinguishing Media:

Water spray, foam, carbon dioxide (CO₂), dry powder.

Unsuitable Extinguishing Media:

Do not use high volume water jet, due to contamination risk.

Specific Hazards arising from the substance/mixture:

Fire may produce irritating or poisonous vapours such as Nitrogen oxides, mists or other products of combustion. Do not breathe fumes.

Fire Fighting:

In case of a fire, do not breathe fumes or vapours from burning materials. Remove spectators from surrounding area. Use a recommended extinguishing agent. Fight fire from a maximum distance and use an unmanned hose holder or monitor nozzles. Do not use a high volume water jet, due to risk of spreading and contamination. Dike extinguishing media for later disposal, do not allow to reach sewage or water systems. Dispose of fire debris and contaminated extinguishing water according to regulations. Water can be used to cool unaffected containers but must be contained for later disposal. Avoid pollution of waterways.

Protective clothing:	Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus.								
6) ACCIDENTAL RELEASE MEASURES									
Personal precautions, protective equipment and emergency procedures:	Do not breathe vapour or spray. Avoid contact with skin, eyes and clothing. Keep away from sources of ignition. Wear personal protective clothing according to operator safety during removal of spillage. Ensure good ventilation.								
Environmental precautions:	Do not contaminate waterways, drains and groundwater. Do not discharge into soil or subsoil. Notify government occupational health, safety and environmental authorities if product should enter water sources. Considered a marine pollutant.								
Methods and material for containment and cleaning up:	<p>Do not eat, drink or smoke during the clean-up process. Keep away from sources of ignition. Clear area of unprotected personnel. Wear protective gear as mentioned in section 8 below. Contain the spill and stop leak provided it is safe to do so. Soak up minor spills with suitable absorbent material such as sand, diatomaceous earth or other non-combustible material. For large spills, dike spill with absorptive material. Collect waste in a suitable container which can be labelled and sealed for disposal according to local regulations. Clean contaminated areas thoroughly with water containing detergent. Collect washings to avoid any contamination of surface and ground water, water supplies and drains. Deal with spillages immediately. If contamination of waterways or drains is unavoidable, warn the local authorities immediately.</p> <p>Used absorbent material should be stored in labelled, sealable containers until these can be disposed of according to local regulations. Open burning or dumping of this is prohibited.</p>								
7) HANDLING & STORAGE									
Precautions for Safe Handling:	Do not breathe in fumes or spray. Ensure thorough ventilation of work and storage areas. Avoid contact with skin, eyes and clothes. Do not eat, drink, smoke or apply cosmetics while using. Wash hands thoroughly with a non-abrasive soap and water after handling, and before eating, tobacco use, drinking, or using the toilet. Sources of ignition should be kept a safe distance away and fire extinguishers should be kept within reach. Do not apply directly to areas where surface water is present. Water used to clean equipment must be disposed of correctly to avoid contamination.								
Conditions for Safe Storage, including any incompatibilities:	Store in a dry, cool place, out of direct sunlight, away from sources of ignition and away from foodstuffs, fertilisers and seeds. Store under lock and key, keep away from animals, children or uninformed persons. Do not contaminate water, food or feed by storage or disposal.								
8) EXPOSURE CONTROL / PERSONAL PROTECTION									
Appropriate Engineering Controls:	It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.								
Control Parameters: Occupational exposure limits:	<table><tr><td>Ingredient</td><td>CAS#</td><td>Limit</td><td>Basis</td></tr><tr><td>Cymoxanil</td><td>57966-95-7</td><td>5 mg/m³</td><td>TWA</td></tr></table>	Ingredient	CAS#	Limit	Basis	Cymoxanil	57966-95-7	5 mg/m ³	TWA
Ingredient	CAS#	Limit	Basis						
Cymoxanil	57966-95-7	5 mg/m ³	TWA						
<u>PERSONAL PROTECTIVE EQUIPMENT:</u> Clothing:	Employee must wear appropriate protective (impervious) clothing to prevent prolonged skin contact with this product e.g. chemical resistant apron, rubber boots and closed body suit.								
Gloves:	Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance.								

Eye protection:	The use of safety goggles with side-shields is recommended.
Respiratory protection:	Wear suitable respiratory equipment to protect from vapours and spray mist.
Emergency eye wash:	Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.
9) PHYSICAL & CHEMICAL PROPERTIES	
Form:	Liquid
Colour:	Off white to tan
Odour:	Characteristic
Solubility:	Suspends in water
pH:	2 - 4
Odour threshold:	No data available
Melting point / Freezing point	No data available
Initial boiling point and boiling range	No data available
Flash point:	No data available
Evaporation rate:	No data available
Flammability (solid, gas)	Not flammable (individual components may be flammable)
Upper/ lower flammability or explosive limits:	No data available
Vapour pressure:	No data available
Vapour density:	No data available
Relative density:	1.09 g/l
Partition coefficient: n-octanol/water	No data available
Auto-ignition temperature:	No data available
Decomposition Temperature:	No data available
Viscosity:	No data available
10) STABILITY & REACTIVITY	
Reactivity:	Stable under normal storage conditions.
Chemical Stability:	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.
Possibility of hazardous reactions:	None known.
Conditions to avoid:	Protect from direct sunlight, heat, flames and other sources of ignition.
Incompatible materials:	Strong bases, strong acids, strong oxidising agents.
Hazardous decomposition product(s):	Fires can release vapours that are irritating or toxic for example nitrogen oxides, ammonia, phosphorous oxides, flammable hydrogen and phosphine gases.
11) TOXICOLOGICAL INFORMATION	
Acute Toxicity:	
Oral:	LD50 > 1 500 mg/kg, rat.
Dermal:	LD50 > 5 000 mg/kg, rat.
Inhalation:	LC50 4h > 5.06 mg/L, rat (Cymoxanil) > 4.2 mg/L, rat (Dimethomorph)
Skin Corrosion/Irritation:	May cause severe irritation and sensitisation.
Serious Eye Damage/Irritation:	May cause irritation.
Respiratory or Skin Sensitization:	May cause an allergic skin reaction.
Germ Cell Mutagenicity:	No data available.
Carcinogenicity:	No data available.
Reproductive Toxicity:	Suspected of damaging the unborn child.
STOT-SE:	No data available.
STOT-RE:	May cause damage to organs through prolonged or repeated damage.
Aspiration Hazard:	No data available.
12) ECOLOGICAL INFORMATION	
Ecotoxicity:	
Birds:	Acute oral LD ₅₀ > 2 250 mg/kg bobwhite quail and mallard ducks (Cymoxanil). Acute oral LD ₅₀ > 2 000 mg/kg bobwhite quail and mallard ducks (Dimethomorph).
Fish:	LC ₅₀ > 100 mg/L (Phosphorous acid). LC ₅₀ (96h) rainbow trout 61 mg/L, bluegill sunfish 29 mg/L, common carp 91 mg/L, sheepshead minnows >47.5 mg/L (Cymoxanil).

<p>Daphnia:</p> <p>Algae:</p> <p>Worms:</p> <p>Bees:</p>	<p>LC₅₀ (96h, static) bluegill sunfish > 25 mg/L, carp 14 mg/L, rainbow trout 6.2mg/L (Dimethomorph). Slightly toxic (Phosphorous acid). LC₅₀ (48h) 27 mg/L (Cymoxanil). EC₅₀ (48h, static > 10.6 mg/L (Dimethomorph). EC₅₀ (5d) <i>Selenastrum capricornutum</i> 1.21 mg/L, EC₅₀ for <i>Anabena flos-aquae</i> 231ppb (Cymoxanil). EC₅₀ (96h) <i>Scenedesmus subspicatus</i> 29.2 mg/L (Dimethomorph) LC₅₀ (14d) 2 208 mg/kg soil (Cymoxanil). EC₅₀ earthworms > 1 000 mg/kg soil (Dimethomorph). Practically non-toxic (Phosphorous acid, Cymoxanil). Oral LD₅₀ (48h) > 32.4 µg/bee, LD₅₀ contact > 102 µg/bee (Dimethomorph).</p>
Persistence and Degradability:	<p>Phosphorous acid: In soil/environment DT₅₀ in soil 16 weeks.</p> <p>Cymoxanil: In lab. soils, DT₅₀ 0.75–1.6 d (5 soils, pH range 5.7–7.8, o.m. 0.8–3.5%). In the field, DT₅₀ (bare soil) 0.9–9 d. In aquatic studies, DT₅₀ <1 d. K_{oc} 38–237.</p> <p>Dimethomorph: Aerobic soil metabolism DT₅₀ 41–96 d (20 °C); field dissipation DT₅₀ 34–53 d. Water/sediment DT₅₀ 5–15 d (water), 16–59 d (total system).</p>
Bio-accumulative Potential:	No evidence of accumulation.
Mobility in Soil:	<p>Cymoxanil is mobile, adsorption Freundlich K 0.29–2.86 in four soil types.</p> <p>Dimethomorph: Moderately mobile (K_d 2.09–11.67 ml/g, K_{oc} 290–566).</p>
13) DISPOSAL CONSIDERATIONS	
Waste Disposal:	<p>Waste should not be re-used. Do not contaminate water sources, food or feed by disposal. Open dumping or burning of this pesticide is prohibited. Wastes resulting from the use of this product should be disposed of by according to local regulations and preferably by an approved chemical waste disposal/incineration facility. Do not dispose of undiluted chemical on site.</p>
Container Disposal:	<p>Refer to the product label for instructions. Empty containers retain product and vapour residues. Triple rinse empty containers before disposal. Add rinsing to the contents of the spray tank before destroying the container in the prescribed manner. Empty containers should not be burnt, puncture and flatten containers and dispose of as recommended for waste product above.</p> <p>DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE.</p>
14) TRANSPORTATION INFORMATION	
Road Transport ADR / IRD:	<p>UN NUMBER: 2902</p> <p>UN Proper Shipping name: PESTICIDES, LIQUID, TOXIC, N.O.S (contains 240g/L Phosphorous acid, 40g/L Cymoxanil, 40g/L Dimethomorph)</p> <p>Transport Hazard Class: 6.1</p> <p>Packaging group: III</p> <p>Labelling no: 6.1</p> <p>Environmental Hazards: Not applicable</p> <p>Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.</p>
Maritime Transport IMDG / IMO:	<p>UN NUMBER: 2902</p> <p>UN Proper Shipping name: PESTICIDES, LIQUID, TOXIC, N.O.S (contains 240g/L Phosphorous acid, 40g/L Cymoxanil, 40g/L Dimethomorph)</p> <p>Transport Hazard Class: 6.1</p> <p>Packaging group: III</p> <p>Labelling no: 6.1</p> <p>Environmental Hazards: Marine Pollutant</p> <p>Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.</p>
Air Transport ICAO / IATA:	<p>UN NUMBER: 2902</p> <p>UN Proper Shipping name: PESTICIDES, LIQUID, TOXIC, N.O.S (contains 240g/L Phosphorous acid, 40g/L Cymoxanil, 40g/L Dimethomorph)</p>



	Transport Hazard Class: 6.1 Packaging group: III Labelling no: 6.1 Environmental Hazards: Not applicable Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.
Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	No transport in bulk according to the IBC Code.
15) REGULATORY INFORMATION	
Safety, health and environmental regulations/legislation specific for the substance/mixture:	For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)
Chemical Safety Assessment:	Advice on product handling can be found in sections 7 and 8 of this safety data sheet.
16) OTHER INFORMATION	
<p>All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.</p> <p>It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS.</p> <p>The information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.</p> <p>MERIDIAN AGRITECH MAKES NO REPRESENTATION OR WARRANTIES, EITHER EXPRESSES OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANT ABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MERIDIAN AGRITECH (PTY) LTD WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.</p> <p>Date of issue: 22/09/2016 Date of revision: 18/01/2021</p> <p>Abbreviations and acronyms:</p> <ol style="list-style-type: none"> 1. CAS number: Chemical Abstracts Service number. 2. CLP: Classification, Labelling, Packaging. 3. LD₅₀: Lethal Dose for 50% of the test population. 4. LC₅₀: Lethal Concentration for 50% of the test population. 5. DT₅₀: Half-life. 6. GHS: Globally Harmonised System (of Classification and Labelling of Chemicals). 7. STOT: Specific Target Organ Toxicity 8. SE: Single exposure 9. RE: Repeated exposure 10. TWA: Time-weighted average. <p>Literature References:</p> <ul style="list-style-type: none"> • GHS: www.ccohs.ca/oshanswers/chemicals/ghs.html • ECHA: https://echa.europa.eu/search-chemicals 	