

**APRON XL**

Version 0.0      Revision Date: 07/18/2023      SDS Number: S00050937770      This version replaces all previous versions.

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**SECTION 1. IDENTIFICATION**

Product name : APRON XL  
Design code : A9382D  
  
Product Registration number : 100-799

**Manufacturer or supplier's details**

Company name of supplier : Syngenta Crop Protection, LLC  
Address : Post Office Box 18300  
Greensboro NC 27419  
United States of America (USA)  
  
Telephone : 1 800 334 9481  
Telefax : 1 336 632 2192  
  
E-mail address : sds.requests@syngenta.com  
Emergency telephone : 1 800 888 8372

**Recommended use of the chemical and restrictions on use**

Recommended use : Seed treatment  
  
Restrictions on use : General Use Pesticide

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**SECTION 2. HAZARDS IDENTIFICATION****GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)**

Acute toxicity (Oral) : Category 4  
  
Eye irritation : Category 2A

**GHS label elements**

Hazard pictograms :



Signal Word : Warning  
  
Hazard Statements : H302 Harmful if swallowed.  
H319 Causes serious eye irritation.

Precautionary Statements : **Prevention:**  
P264 Wash skin thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P280 Wear eye protection/ face protection.  
  
**Response:**  
P301 + P312 + P330 IF SWALLOWED: Call a POISON

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CENTER/ doctor if you feel unwell. Rinse mouth.  
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 If eye irritation persists: Get medical advice/ attention.

### Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

### Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

### Components

Chemical name	CAS-No.	Concentration (% w/w)
metalaxyl-M	70630-17-0	33.3016
propane-1,2-diol	57-55-6	>= 20 - < 30

Actual concentration is withheld as a trade secret

## SECTION 4. FIRST AID MEASURES

- General advice : Have the product container, label or Safety Data Sheet with you when calling the emergency number, a poison control center or physician, or going for treatment.
- If inhaled : Take the victim into fresh air.  
 If breathing is irregular or stopped, administer artificial respiration.  
 Keep patient warm and at rest.  
 Call a physician or poison control center immediately.
- In case of skin contact : Take off all contaminated clothing immediately.  
 Wash off immediately with plenty of water.  
 If skin irritation persists, call a physician.  
 Wash contaminated clothing before re-use.
- In case of eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.  
 Remove contact lenses.  
 Immediate medical attention is required.
- If swallowed : If swallowed, seek medical advice immediately and show this container or label.  
 Do NOT induce vomiting.
- Most important symptoms and effects, both acute and delayed : Nonspecific  
 No symptoms known or expected.
- Notes to physician : There is no specific antidote available.  
 Treat symptomatically.

## SECTION 5. FIRE-FIGHTING MEASURES

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- Suitable extinguishing media : Extinguishing media - small fires  
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.  
Extinguishing media - large fires  
Alcohol-resistant foam  
or  
Water spray
- Unsuitable extinguishing media : Do not use a solid water stream as it may scatter and spread fire.
- Specific hazards during fire fighting : As the product contains combustible organic ingredients, fire will produce dense black smoke containing hazardous products of combustion (see section 10).  
Exposure to decomposition products may be a hazard to health.
- Further information : Do not allow run-off from fire fighting to enter drains or water courses.  
Cool closed containers exposed to fire with water spray.
- Special protective equipment for fire-fighters : Wear full protective clothing and self-contained breathing apparatus.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Refer to protective measures listed in sections 7 and 8.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.  
Do not flush into surface water or sanitary sewer system.  
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13).  
Clean contaminated surface thoroughly.  
Clean with detergents. Avoid solvents.  
Retain and dispose of contaminated wash water.

### SECTION 7. HANDLING AND STORAGE

- Advice on safe handling : No special protective measures against fire required.  
Avoid contact with skin and eyes.  
When using do not eat, drink or smoke.  
For personal protection see section 8.
- Conditions for safe storage : No special storage conditions required.  
Keep containers tightly closed in a dry, cool and well-ventilated place.  
Keep out of the reach of children.  
Keep away from food, drink and animal feedingstuffs.

### SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

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Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
metalaxyl-M	70630-17-0	TWA	5 mg/m <sup>3</sup>	Syngenta
propane-1,2-diol	57-55-6	TWA	10 mg/m <sup>3</sup>	US WEEL

**Engineering measures** : THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the actual risks in use. Maintain air concentrations below occupational exposure standards. Where necessary, seek additional occupational hygiene advice.

### Personal protective equipment

**Respiratory protection** : No personal respiratory protective equipment normally required. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

**Hand protection**

**Remarks** : No special protective equipment required.

**Eye protection** : Tightly fitting safety goggles  
Always wear eye protection when the potential for inadvertent eye contact with the product cannot be excluded.

**Skin and body protection** : No special protective equipment required. Select skin and body protection based on the physical job requirements.

**Protective measures** : The use of technical measures should always have priority over the use of personal protective equipment. When selecting personal protective equipment, seek appropriate professional advice.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance** : liquid

**Color** : amber

**Odor** : aromatic, weak

**Odor Threshold** : No data available

**pH** : 4.7 (77 °F / 25 °C)  
Concentration: 1 %w/v

**Melting point/range** : No data available

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Boiling point/boiling range	:	No data available
Flash point	:	Method: Seta closed cup does not flash
Evaporation rate	:	No data available
Flammability (solid, gas)	:	No data available
Upper explosion limit / Upper flammability limit	:	No data available
Lower explosion limit / Lower flammability limit	:	No data available
Vapor pressure	:	No data available
Relative vapor density	:	No data available
Density	:	1.073 g/cm <sup>3</sup> (68 °F / 20 °C)
Solubility(ies)		
Water solubility	:	No data available
Solubility in other solvents	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Autoignition temperature	:	806 °F / 430 °C
Decomposition temperature	:	No data available
Viscosity		
Viscosity, dynamic	:	32 mPa.s (68 °F / 20 °C)
Viscosity, kinematic	:	No data available
Explosive properties	:	Not explosive
Oxidizing properties	:	The substance or mixture is not classified as oxidizing.
Particle size	:	No data available

**SECTION 10. STABILITY AND REACTIVITY**

Reactivity	:	None reasonably foreseeable.
Chemical stability	:	Stable under normal conditions.
Possibility of hazardous reactions	:	No dangerous reaction known under conditions of normal use.
Conditions to avoid	:	No decomposition if used as directed.
Incompatible materials	:	None known.
Hazardous decomposition products	:	No hazardous decomposition products are known.

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**SECTION 11. TOXICOLOGICAL INFORMATION****Information on likely routes of exposure**

Ingestion  
Inhalation  
Skin contact  
Eye contact

**Acute toxicity****Product:**

Acute oral toxicity : LD50 (Rat, female): estimated 1,154 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.53 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity, The substance/mixture is not toxic on inhalation as defined by dangerous goods regulations.

Acute dermal toxicity : LD50 (Rat, male and female): > 5,000 mg/kg

**Components:****metalaxyl-M:**

Acute oral toxicity : LD50 (Rat, female): 375 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.29 mg/l  
Exposure time: 4 h  
Test atmosphere: dust/mist  
Assessment: The substance or mixture has no acute inhalation toxicity  
Remarks: Highest attainable concentration

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg  
Assessment: The substance or mixture has no acute dermal toxicity

**Skin corrosion/irritation****Product:**

Species : Rabbit  
Result : No skin irritation

**Components:****metalaxyl-M:**

Species : Rabbit  
Result : No skin irritation

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**Serious eye damage/eye irritation****Product:**

Species : Rabbit  
Result : Irritation to eyes, reversing within 21 days

**Components:****metalaxyl-M:**

Species : Rabbit  
Result : Risk of serious damage to eyes.

**Respiratory or skin sensitization****Product:**

Test Type : Buehler Test  
Species : Guinea pig  
Result : Did not cause sensitization on laboratory animals.

**Components:****metalaxyl-M:**

Species : Guinea pig  
Result : Did not cause sensitization on laboratory animals.

**Germ cell mutagenicity****Components:****metalaxyl-M:**

Germ cell mutagenicity - Assessment : Animal testing did not show any mutagenic effects.

**Carcinogenicity****Components:****metalaxyl-M:**

Carcinogenicity - Assessment : No evidence of carcinogenicity in animal studies.

**Reproductive toxicity****Components:****metalaxyl-M:**

Reproductive toxicity - Assessment : No toxicity to reproduction

**STOT-repeated exposure****Components:****metalaxyl-M:**

Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

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### SECTION 12. ECOLOGICAL INFORMATION

#### Ecotoxicity

##### Components:

##### metalaxyl-M:

- |  |   |   |
|--|---|---|
| Toxicity to fish   | : | LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l<br>Exposure time: 96 h                                       |
|  |   | LC50 (Cyprinus carpio (Carp)): > 100 mg/l<br>Exposure time: 96 h  |
| Toxicity to daphnia and other aquatic invertebrates                    | : | EC50 (Daphnia magna (Water flea)): > 100 mg/l<br>Exposure time: 48 h  |
| Toxicity to algae/aquatic plants                                       | : | ErC50 (Raphidocelis subcapitata (freshwater green alga)): 271 mg/l<br>Exposure time: 96 h                           |
|  |   | NOEC (Raphidocelis subcapitata (freshwater green alga)): 19.7 mg/l<br>End point: Growth rate<br>Exposure time: 96 h |
| Toxicity to fish (Chronic toxicity)                                    | : | NOEC (Oncorhynchus mykiss (rainbow trout)): 50 mg/l<br>Exposure time: 28 d  |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | : | NOEC (Daphnia magna (Water flea)): 25 mg/l<br>Exposure time: 21 d   |
| Toxicity to microorganisms   | : | EC50 (activated sludge): > 100 mg/l<br>Exposure time: 3 h   |

#### Persistence and degradability

##### Components:

##### metalaxyl-M:

- |                    |   |   |
|--------------------|---|---|
| Biodegradability   | : | Result: Not readily biodegradable.  |
| Stability in water | : | Degradation half life: 22.4 - 47.5 d<br>Remarks: Product is not persistent. |

#### Bioaccumulative potential

##### Components:

##### metalaxyl-M:

- |  |   |   |
|--|---|---|
| Bioaccumulation                        | : | Remarks: Low bioaccumulation potential. |
| Partition coefficient: n-octanol/water | : | log Pow: 1.71 (77 °F / 25 °C)           |



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**Mobility in soil****Components:****metalaxyl-M:**

Distribution among environmental compartments : Remarks: Metalaxyl has a range from low to very high mobility in soil depending on soil type.

Stability in soil : Dissipation time: < 50 d  
Percentage dissipation: 50 % (DT50)  
Remarks: Product is not persistent.

**Other adverse effects****Components:****metalaxyl-M:**

Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be very persistent and very bioaccumulating (vPvB).

**SECTION 13. DISPOSAL CONSIDERATIONS****Disposal methods**

Waste from residues : Do not contaminate ponds, waterways or ditches with chemical or used container.  
Do not dispose of waste into sewer.  
Where possible recycling is preferred to disposal or incineration.  
If recycling is not practicable, dispose of in compliance with local regulations.

Contaminated packaging : Empty remaining contents.  
Triple rinse containers.  
Empty containers should be taken to an approved waste handling site for recycling or disposal.  
Do not re-use empty containers.

**SECTION 14. TRANSPORT INFORMATION****International Regulations****UNRTDG**

Not regulated as a dangerous good

**IATA-DGR**

Not regulated as a dangerous good

**IMDG-Code**

Not regulated as a dangerous good

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Not applicable for product as supplied.

**Domestic regulation****49 CFR**

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Not regulated as a dangerous good

**Special precautions for user**

Remarks : Not classified as dangerous in the meaning of transport regulations.

**SECTION 15. REGULATORY INFORMATION**

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

**Warning**

Causes substantial but temporary eye injury.

Harmful if swallowed.

Harmful if absorbed through skin.

Do not get in eyes or on clothing.

Avoid contact with skin.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

Remove and wash contaminated clothing before re-use.

**CERCLA Reportable Quantity**

Listed substances in the product are at low enough levels to not be expected to exceed the RQ

**SARA 304 Extremely Hazardous Substances Reportable Quantity**

This material does not contain any components with a section 304 EHS RQ.

**SARA 302 Extremely Hazardous Substances Threshold Planning Quantity**

This material does not contain any components with a section 302 EHS TPQ.

**SARA 311/312 Hazards** : Acute toxicity (any route of exposure)  
Serious eye damage or eye irritation

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

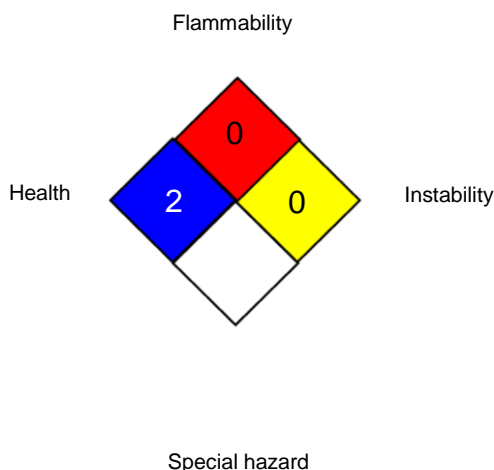
**SECTION 16. OTHER INFORMATION****Further information**

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### NFPA 704:



### HMIS® IV:

HEALTH	/	2
FLAMMABILITY		0
PHYSICAL HAZARD		0

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

### Full text of other abbreviations

Syngenta : Syngenta Occupational Exposure Limits  
 US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)  
 Syngenta / TWA : Time weighted average  
 US WEEL / TWA : 8-hr TWA

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance

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Inventory; TECI - Thailand Existing Chemicals Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

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The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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