

ARISTON™

Safety Data Sheet

Revision date: 5/26/2015

Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : ARISTON™
Other means of identification : EPA Reg. No. 60063-53

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Fungicide

1.3. Details of the supplier of the safety data sheet

1.3. Name, Address, and Telephone of the Responsible Party

Manufacturer

Sipcam Agro USA, Inc.
2525 Meridian Parkway, Suite 350
Durham, NC 27713
T 919-226-1195

1.4. Emergency Telephone Number

Emergency Number : (800) 424-9300 CHEMTREC (transportation and spills)
(800) 900-4044 Poison Control Center (human health)
(800) 345-4735 ASPCA (animal health)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Sens. 1 H317
Carc. 2 H351
STOT SE 3 H335
Aquatic Acute 1 H400
Aquatic Chronic 1 H410

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :



Signal word (GHS-US) : Danger

Hazard statements (GHS-US)	: H317 - May cause an allergic skin reaction H335 - May cause respiratory irritation H351 - Suspected of causing cancer H400 - Very toxic to aquatic life H410 - Very toxic to aquatic life with long lasting effects
Precautionary statements (GHS-US)	: P201 - Obtain special instructions before use P202 - Do not handle until all safety precautions have been read and understood P261 - Avoid breathing mist/vapours/spray P271 - Use only outdoors or in a well-ventilated area 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/face protection P302+P352 - IF ON SKIN: Wash with plenty of soap and water P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P308+P313 - IF exposed or concerned: Get medical advice/attention P310 - Immediately call a POISON CENTER/doctor P312 - Call a POISON CENTER/doctor if you feel unwell P321 - Specific treatment (see label) P333+P313 - If skin irritation or rash occurs: Get medical advice/attention P362+P364 - Take off contaminated clothing and wash it before reuse P391 - Collect spillage P403+P233 - Store in a well-ventilated place. Keep container tightly closed P405 - Store locked up P501 - Dispose of contents/container in accordance with local/regional/national/international regulations

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Chlorothalonil	(CAS No.) 1897-45-6	37.15	Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Cymoxanil	(CAS No.) 57966-95-7	4.96	Skin Sens. 1, H317 Carc. 2, H351 STOT SE 3, H335
Propylene glycol	(CAS No.) 57-55-6	<5	Not Classified

SECTION 4: First aid measures**4.1. Description of first aid measures**

- First-aid measures after inhalation : Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.
- First-aid measures after skin contact : Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Call a POISON CENTER or doctor/physician.
- First-aid measures after eye contact : Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- First-aid measures after ingestion : Call a poison control center or doctor immediately for treatment advice. Have affected person sip a glass of water if able to swallow. Do not induce vomiting unless told by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

4.2. Most important symptoms and effects, both acute and delayed

No additional information available

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures**5.1. Extinguishing media**

- Suitable extinguishing media : Use carbon dioxide, foam, dry chemical or water.
- Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Not flammable.
- Explosion hazard : None known.
- Reactivity : None.

5.3. Advice for firefighters

- Protection during firefighting : Firefighters should wear full protective gear.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures**

- General measures : Avoid breathing vapors. Avoid skin and eye contact and wear appropriate personal protective equipment.

6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information available

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- For containment : If possible, stop flow of product.

Methods for cleaning up : Contain and/or absorb spill with inert material, then place in suitable container. Dispose of waste in accordance with local, state and federal regulations.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes, skin and clothing. Do not eat, drink or smoke when using this product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container closed when not in use. Store in dry, cool, well-ventilated area.

7.3. Specific end use(s)

Fungicide

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Propylene glycol (57-55-6)		
AIHA	AIHA TWA (mg/m ³)	10 mg/m ³

8.2. Exposure controls

Appropriate engineering controls : Local exhaust and general ventilation must be adequate to meet exposure standards.

Hand protection : Wear impervious gloves to minimize skin contact.

Eye protection : Chemical goggles or face shield.

Skin and body protection : Wear suitable working clothes.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Colour : White
Odour : Mild
Odour threshold : No data available
pH : 3.67
Relative evaporation rate (butylacetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : 100°C (water)
Flash point : No data available
Self ignition temperature : Will not self-ignite
Decomposition temperature : No data available

Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.238 @ 25°C
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: Does not oxidize
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity**10.1. Reactivity**

None.

10.2. Chemical stability

The product is stable at normal handling- and storage conditions.

10.3. Possibility of hazardous reactions

Will not occur.

10.4. Conditions to avoid

None.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

May decompose under fire conditions emitting gases and vapors which may be toxic and irritating to the respiratory tract.

SECTION 11: Toxicological information**11.1. Information on toxicological effects**

Acute toxicity : Not classified

Ariston™	
LD50 oral	>5000 mg/kg
LD50 dermal	> 5050 mg/kg
LC50 inhalation	>2.12 mg/l

Chlorothalonil	
LD50 oral rat	10 g/kg
LD50 dermal rat	> 2500 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

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LC50 inhalation rat (mg/l)	0.31 mg/l (Exposure time: 1 h)
Cymoxanil	
LD50 oral rat	1000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (mg/l)	> 5 mg/l (Exposure time: 4 h)
Propylene glycol (57-55-6)	
LD50 Oral Rat	20 g/kg
LD50 Dermal Rabbit	20800 mg/kg

Skin corrosion/irritation	: Slightly irritating. pH: 6 - 8
Serious eye damage/irritation	: Not irritating pH: 6 - 8
Respiratory or skin sensitisation	: Not a sensitizer. May cause an allergic skin reaction in some individuals.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.

Chlorothalonil	
IARC group	2B
National Toxicity Program (NTP) Status	1

Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

Chlorothalonil	
LC50 fishes 1	0.012 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [semi-static])
EC50 Daphnia 1	0.0342 - 0.143 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
EC50 other aquatic organisms 1	0.57 mg/l (Exposure time: 72 h - Species: Desmodesmus subspicatus)
LC50 fish 2	0.0076 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [flow-through])
EC50 other aquatic organisms 2	0.0068 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata [static])
Cymoxanil	
LC50 fishes 1	72 - 113 mg/l (Exposure time: 96 h - Species: Cyprinus carpio [static])
EC50 Daphnia 1	27 mg/l (Exposure time: 48 h - Species: Daphnia magna)
EC50 other aquatic organisms 1	5.2 mg/l (Exposure time: 72 h - Species: Pseudokirchneriella subcapitata)
LC50 fish 2	13.5 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 2	22 - 35 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
NOEC (acute)	< 500 mg/kg (Exposure time: 14 Days - Species: Eisenia foetida [soil dry weight])

Propylene glycol (57-55-6)	
LC50 Fish 1	51600 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 1	10000 mg/l (Exposure time: 24 h - Species: Daphnia magna)
LC 50 Fish 2	41 - 47 ml/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])
EC50 Daphnia 2	1000 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

Chlorothalonil	
Log Pow	2.9 (at 22 °C)
Cymoxanil	
Log Pow	3.9 - 4.7 (at 20 °C)
Propylene glycol (57-55-6)	
BCF fish 1	< 1
Log Pow	-0.92

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14: Transport information

In accordance with DOT / IMDG / IATA

14.1. UN number

UN3082

14.2. UN proper shipping name

DOT Proper Shipping Name : Environmentally hazardous substances, liquid, n.o.s. (Chlorothalonil)

Department of Transportation (DOT) : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140

Hazard Classes

Hazard labels (DOT) : 9 - Miscellaneous dangerous compounds



DOT Symbols : G - Identifies PSN requiring a technical name

Packing group (DOT) : III - Minor Danger

DOT Special Provisions (49 CFR 172.102) : 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies.
 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination.
 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leakproof when used as bulk packaging.
 IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
 T4 - 2.65 / 178.274(d)(2) / Normal / 178.275(d)(3)
 TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
 TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions : Refer to 49 CFR 173.155
 DOT Packaging Non Bulk : Refer to 49 CFR 173.203
 DOT Packaging Bulk : Refer to 49 CFR 173.241

14.3. Additional information

Other information : This product is regulated for transportation purposes as follows:

MODE	BULK (> 119 GALLONS)	NON-BULK (< 119 GALLONS)
IATA (AIR):	Yes	No
IMO (Water):	Yes	Yes
DOT (Land):	Yes	No

Overland transport

No additional information available

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : No limit

DOT Quantity Limitations Cargo : No limit
aircraft only (49 CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

Chlorothalonil	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Listed on SARA Section 313 (Specific toxic chemical listings)	
SARA Section 313 - Emission Reporting	0.1 %
Cymoxanil	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

CAUTION

Harmful if swallowed or absorbed through skin. Harmful if inhaled. Avoid contact with eyes, skin or clothing. Do not breathe spray mist. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

Propylene glycol (57-55-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	Y2 - Y2 - indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

15.2. US State regulations

Chlorothalonil				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes				41 ug/day

Chlorothalonil	
U.S. - Massachusetts - Right To Know List	
U.S. - Pennsylvania - RTK (Right to Know) List	

Propylene glycol (57-55-6)	
U.S. - New Jersey - Right to Know Hazardous Substance List	
U.S. - Pennsylvania - RTK (Right to Know) List	

SECTION 16: Other information

Full text of H-phrases:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment - Chronic Hazard Category 1
Carc. 2	Carcinogenicity Category 2
Skin Sens. 1	Skin sensitisation Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H317	May cause an allergic skin reaction
H335	May cause respiratory irritation
H351	Suspected of causing cancer

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H400

Very toxic to aquatic life

H410

Very toxic to aquatic life with long lasting effects

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product. (SDS US (GHS HazCom 2012))