



# ECHO® 720 Turf and Ornamental Fungicide

## SAFETY DATA SHEET

OSHA HCS (29 CFR 1910.1200)

### SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

**Product identifier**

|                           |                                         |
|---------------------------|-----------------------------------------|
| Chemical Name             | Mixture                                 |
| Trade Names               | ECHO® 720 Turf and Ornamental Fungicide |
| CAS No.                   | Mixture                                 |
| EPA Identification Number | EPA Reg. No. 60063-7                    |

**Relevant identified uses of the substance or mixture and uses advised against**

|                      |                                                                                                  |
|----------------------|--------------------------------------------------------------------------------------------------|
| Identified Use(s)    | Fungicide                                                                                        |
| Uses Advised Against | It is a violation of Federal law to use this product in a manner inconsistent with its labeling. |

**Details of the supplier of the safety data sheet**

|                        |                                                                                                |
|------------------------|------------------------------------------------------------------------------------------------|
| Company Identification | Sipcam Agro USA, Inc.<br>2525 Meridian Parkway<br>Durham, NC 27713<br>United States of America |
| Telephone              | (919) 226-1195                                                                                 |

**Emergency telephone number**

|                     |                                                                               |
|---------------------|-------------------------------------------------------------------------------|
| Emergency Phone No. | CHEMTREC 24 hr. 1-800-424-9300 / 1 (703) 527-3887<br>(Collect calls accepted) |
|---------------------|-------------------------------------------------------------------------------|

### SECTION 2: HAZARDS IDENTIFICATION

**Classification of the substance or mixture**

|                             |                                                 |
|-----------------------------|-------------------------------------------------|
| OSHA HCS (29 CFR 1910.1200) | Acute Tox. 2; Eye Irrit. 2B; Carc. 2; STOT SE 3 |
|-----------------------------|-------------------------------------------------|

**Label elements**

This is a pesticide product registered with the United States 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 (SDS) and for workplace labels of non pesticide chemicals. The labeling information below applies to non-pesticide workplace labels. For pesticide label information, refer to Section 15.

Hazard Symbol(s)



**DANGER**

Signal Word(s)

Hazard Statement(s)

Fatal if inhaled (Aerosol).  
Causes eye irritation.  
Suspected of causing cancer.  
May cause respiratory irritation (Aerosol).

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### Precautionary Statement(s)

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Do not breathe mist/vapours/spray.

Use only outdoors or in a well-ventilated area.

Wear protective gloves/protective clothing/eye protection/face protection.

Wear respiratory protection.

Wash hands and exposed skin thoroughly after handling.

Contaminated work clothing should not be allowed out of the workplace.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing is laboured, administer oxygen. Treat symptomatically.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.

IF ON SKIN: Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If irritation (redness, rash, blistering) develops, get medical attention. Treat symptomatically. Contaminated clothing should be laundered before reuse.

**IF** exposed or concerned: Get medical advice/attention. Treat symptomatically.

Store in a well-ventilated place. Keep container tightly closed.

Store locked up.

Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice. Observe directions on label and instructions for use. See Also Section 15.

### Other hazards

Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

Contains: Chlorothalonil. May produce an allergic reaction in persons already sensitised.

### Additional Information

None

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

| Composition/information on ingredients | %W/W | CAS No.   | Hazard Statement(s)                                                                                                                                   |
|----------------------------------------|------|-----------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| Chlorothalonil                         | ~ 54 | 1897-45-6 | Acute Tox. 2; H330<br>Eye Dam. 1; H318<br>Skin Sens. 1B; H317<br>Carc. 2; H351<br>STOT-SE 3; H335<br>Aquatic Acute 1; H400<br>Aquatic Chronic 1; H410 |

Additional Information – None

## SECTION 4: FIRST AID MEASURES



Description of first aid measures

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|                                                                                   |                                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Inhalation                                                                        | Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor. If breathing is laboured, administer oxygen. Treat symptomatically.                                                                          |
| Skin Contact                                                                      | Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. If irritation (redness, rash, blistering) develops, get medical attention. Treat symptomatically. Contaminated clothing should be laundered before reuse. |
| Eye Contact                                                                       | Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists, get medical advice/attention.                                                                       |
| Ingestion                                                                         | Do not give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell. Rinse mouth.                                                                                                                                |
| <b>Most important symptoms and effects, both acute and delayed</b>                | Fatal if inhaled. Contains: Chlorothalonil. May produce an allergic reaction in persons already sensitised.                                                                                                                                          |
| <b>Indication of any immediate medical attention and special treatment needed</b> | Call a POISON CENTER or doctor/physician if you feel unwell.                                                                                                                                                                                         |

### SECTION 5: FIRE-FIGHTING MEASURES

|                                                              |                                                                                                                                                                                                                         |
|--------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Extinguishing Media</b>                                   | Extinguish with carbon dioxide, dry chemical, foam or water spray. None known.                                                                                                                                          |
| -Suitable Extinguishing Media                                |                                                                                                                                                                                                                         |
| -Unsuitable Extinguishing Media                              |                                                                                                                                                                                                                         |
| <b>Special hazards arising from the substance or mixture</b> | Combustion or thermal decomposition will evolve toxic and irritant vapours. Forms oxides of carbon and nitrogen, also chlorine and chlorinated compounds. Decontaminate equipment or materials used in pesticide fires. |
| <b>Advice for fire-fighters</b>                              | Fire fighters should wear complete protective clothing including self-contained breathing apparatus.                                                                                                                    |

### SECTION 6: ACCIDENTAL RELEASE MEASURES

|                                                                            |                                                                                                                                                                                                                                                              |
|----------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Personal precautions, protective equipment and emergency procedures</b> | Do not get in eyes, on skin, or on clothing. Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist/vapours/spray. Wear suitable respiratory protective equipment if exposure to high levels of material are likely. |
| <b>Environmental precautions</b>                                           | Observe directions on label and instructions for use. See Also Section 15.                                                                                                                                                                                   |
| <b>Methods and material for containment and cleaning up</b>                | Observe directions on label and instructions for use. See Also Section 15.                                                                                                                                                                                   |
| <b>Reference to other sections</b>                                         | Observe directions on label and instructions for use. See Also Section 15.                                                                                                                                                                                   |
| <b>Additional Information</b>                                              | None                                                                                                                                                                                                                                                         |

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### SECTION 7: HANDLING AND STORAGE

#### Precautions for safe handling

Do not breathe mist/vapours/spray. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection. Wash hands and exposed skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Observe directions on label and instructions for use. See Also Section 15.

#### Conditions for safe storage, including any incompatibilities

- Storage temperature
- Incompatible materials

Store at room temperature. Do not allow material to freeze.  
Strong oxidising agents. Substances that react with water.

#### Specific end use(s)

Fungicide

### SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

#### Occupational Exposure Limits

| SUBSTANCE. | CAS No. | (8hr TWA)  |             | (STEL)     |             | Note: |
|------------|---------|------------|-------------|------------|-------------|-------|
|            |         | PEL (OSHA) | TLV (ACGIH) | PEL (OSHA) | TLV (ACGIH) |       |
| None       | -----   | -----      | -----       | -----      | -----       | ----- |

#### Exposure controls

##### Appropriate engineering controls

Do **NOT** aerosolize or atomize to produce inhalable-size particles. Use low-pressure coarse spray only. Observe directions on label and instructions for use. See Also Section 15.

##### Personal protection equipment

##### Eye/face protection



Wear protective eyewear (goggles, face shield, or safety glasses).

##### Skin protection (Hand protection/ Other)



Gloves. Observe directions on label and instructions for use. See Also Section 15.

##### Respiratory protection



Observe directions on label and instructions for use. See Also Section 15.

##### Thermal hazards

Not normally required.

#### Environmental Exposure Controls

Do not allow to enter drains, sewers or watercourses. Observe directions on label and instructions for use. See Also Section 15.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

#### Information on basic physical and chemical properties

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|                                          |                                 |
|------------------------------------------|---------------------------------|
| Appearance                               | Liquid                          |
| Colour.                                  | Light brown, opaque             |
| Odour                                    | No incidental odor was detected |
| Odour Threshold (ppm)                    | Not available.                  |
| pH (Value)                               | 5.96                            |
| Melting Point (°C) / Freezing Point (°C) | Not available.                  |
| Boiling point/boiling range (°C):        | Not available.                  |
| Flash Point (°C)                         | Not available.                  |
| Evaporation rate                         | Not available.                  |
| Flammability (solid, gas)                | > 93.4                          |
| Explosive Limit Ranges                   | Not available.                  |
| Vapour pressure (Pascal)                 | Not available.                  |
| Vapour Density (Air=1)                   | Not available.                  |
| Density (g/ml)                           | 1.333                           |
| Solubility (Water)                       | Not available.                  |
| Solubility (Other)                       | Not available.                  |
| Partition Coefficient (n-Octanol/water)  | Not available.                  |
| Auto Ignition Point (°C)                 | Not available.                  |
| Decomposition Temperature (°C)           | Not available.                  |
| Kinematic Viscosity (cSt)                | 1507 @ 25 °C                    |
| Explosive properties                     | Not explosive.                  |
| Oxidising properties                     | Not oxidising.                  |
| <b>Other information</b>                 | Not available.                  |

### SECTION 10: STABILITY AND REACTIVITY

|                                           |                                                                                                                                                                                                                         |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Reactivity</b>                         | No hazardous reactions known if used for its intended purpose.                                                                                                                                                          |
| <b>Chemical stability</b>                 | Stable under normal conditions.                                                                                                                                                                                         |
| <b>Possibility of hazardous reactions</b> | None anticipated.                                                                                                                                                                                                       |
| <b>Conditions to avoid</b>                | Incompatible materials                                                                                                                                                                                                  |
| <b>Incompatible materials</b>             | Strong oxidising agents. Substances that react with water.                                                                                                                                                              |
| <b>Hazardous decomposition product(s)</b> | Combustion or thermal decomposition will evolve toxic and irritant vapours. Forms oxides of carbon and nitrogen, also chlorine and chlorinated compounds. Decontaminate equipment or materials used in pesticide fires. |

### SECTION 11: TOXICOLOGICAL INFORMATION

**Exposure routes:** Inhalation, Skin Contact, Eye Contact

#### Information on toxicological effects

|                                   |                                                                                                             |
|-----------------------------------|-------------------------------------------------------------------------------------------------------------|
| <b>Substances</b>                 | Not applicable                                                                                              |
| <b>Mixtures</b>                   |                                                                                                             |
| Acute toxicity                    | Oral: LD50 = 3265 mg/kg-bw (rat)<br>Dermal: LD50 >2020 mg/kg-bw (rat)<br>Inhalation: LC50 = 0.11 mg/L (rat) |
| Skin corrosion/irritation         | Unlikely to cause skin irritation.                                                                          |
| Serious eye damage/irritation     | Causes eye irritation.                                                                                      |
| Respiratory or skin sensitization | It is not a skin sensitiser in animal tests.                                                                |
| Germ cell mutagenicity            | Not available.                                                                                              |
| Carcinogenicity                   | Not available.                                                                                              |
| Reproductive toxicity             | Not available.                                                                                              |

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STOT - single exposure  
STOT - repeated exposure  
Aspiration hazard

Not available.  
Not available.  
Not available.

### Substances in preparations / mixtures

Chlorothalonil (CAS#1897-45-6):

Acute toxicity (calculated / estimated)

Oral: LD50 ~3260 mg/kg-bw (rat)  
Dermal: LD50 ~2020 mg/kg-bw (rat)  
Inhalation: LC50 0.1 mg/L (4 hr) (rat) (Inhalable Dust) - May cause respiratory irritation

Irritation/Corrosivity

Causes serious eye damage.

Sensitization

Based on reliable animal studies, the substance is not a skin sensitizer except possibly in the presence of a carrier solvent such as acetone. The substance may be a weak skin sensitizer based on a relatively small number of physician's clinical reports from exposed workers and, therefore, the potential for skin sensitization cannot be completely ruled out.

Repeated dose toxicity

Not to be expected.

Carcinogenicity

Suspected of causing cancer.

| NTP               | IARC | ACGIH | OSHA |
|-------------------|------|-------|------|
| Animal carcinogen | 2B   | No.   | No.  |

Mutagenicity

Not to be expected.

Reproductive toxicity

Not to be expected.

## SECTION 12: ECOLOGICAL INFORMATION

### Ecotoxicity

Chlorothalonil (CAS# 1897-45-6):

Short term

LC50 (96 hour): 0.012 mg/L(fish)  
EC50 (48 hour): 0.0342 – 0.143 mg/L (crustacea)

Long Term

Very toxic to aquatic life with long lasting effects.

### Persistence and degradability

Part of the components are poorly biodegradable.

### Bioaccumulative potential

Not determined.

### Mobility in soil

Not determined.

### Results of PBT and vPvB assessment

Not classified as PBT.

### Other adverse effects

None known.

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

Disposal should be in accordance with local, state or national legislation. Consult an accredited waste disposal contractor or the local authority for advice. Observe directions on label and instructions for use. See Also Section 15.

### Additional Information

None known.

## SECTION 14: TRANSPORT INFORMATION

Land transport

Sea transport

Air transport  
(ICAO/IATA)



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|                              | <u>(U.S. DOT) *</u>                          | <u>(IMDG)</u>                                                        |
|------------------------------|----------------------------------------------|----------------------------------------------------------------------|
| UN number                    | Not classified as dangerous for transport. * | UN 3082                                                              |
| Proper Shipping Name         |                                              | UN 3082                                                              |
| Transport hazard class(es)   |                                              | Environmentally hazardous substance, liquid, n.o.s. (Chlorothalonil) |
| Packing group                |                                              | 9                                                                    |
| Hazard label(s)              |                                              | III                                                                  |
| Environmental hazards        |                                              | Marine Pollutant                                                     |
| Special precautions for user |                                              | Yes                                                                  |
|                              |                                              | None Assigned                                                        |

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable

\* For bulk shipments in U.S., can be shipped as UN3082, Environmentally hazardous substance, liquid, n.o.s. (Chlorothalonil), 9, PG III

### SECTION 15: REGULATORY INFORMATION

#### Safety, health and environmental regulations/legislation specific for the substance or mixture:

**TSCA (Toxic Substance Control Act)** - Inventory Status: This is a registered pesticide product regulated under Federal Insecticide, Fungicide, and Rodenticide Act and, therefore, the components of this product are not subject to listing on the TSCA inventory.

#### EPA FIFRA Information for SDS Section 15 (Regulatory Information):

This is a pesticide product registered with the United States 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 (SDS), and for workplace labels of non pesticide chemicals.

The hazard information required on the pesticide label is reproduced below:

**WARNING:** May be fatal if inhaled. Harmful if swallowed or absorbed through skin. Causes moderate eye irritation. Avoid contact with eyes, skin or clothing. Do not breathe spray mist.

Mixers, loaders, applicators and all other handlers must wear: Long-sleeved shirt and long pants; shoes plus socks; protective eye wear; chemical-resistant gloves made of waterproof material such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, polyethylene, polyvinyl chloride, or viton (if you want more options, follow the instructions for category A on an EPA chemical-resistance category selection chart); a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P, or HE prefilter. Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet. Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing. Remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

**Personal Protective Equipment (PPE):** Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and hot water. Keep and wash PPE separately from other laundry. Discard clothing and other absorbent materials that have been drenched or heavily contaminated with this product's concentrate. DO NOT reuse them.

**Engineering Controls:** When handlers use closed systems, enclosed cabs, or aircraft in a manner that meets the requirements listed in the Worker Protection Standard (WPS) for agricultural pesticides [40 CFR 170.240(d)(4-6)], the handler PPE requirements may be reduced or modified as specified in the WPS.

**Environmental Hazards:** This product is toxic to aquatic invertebrates and wildlife. DO NOT apply directly to water, or to areas where surface water is present or to intertidal areas below the mean high-water mark. Drift and runoff from treated areas may be hazardous to aquatic organisms in neighboring areas. DO NOT contaminate water when disposing of equipment washwater or rinsate. Chlorothalonil can contaminate surface water through spray drift. DO NOT apply when weather conditions favor drift from treated areas. Under some conditions, it may also have a high potential for runoff into surface water for several days to weeks after application. These include poorly draining or wet soils with readily visible slopes toward adjacent surface waters, frequently flooded areas, areas overlaying extremely shallow ground water, areas with in-field canals or ditches that drain to surface water, areas not separated from adjacent surface waters with vegetated filter strips, and areas over-laying tile drainage systems that drain to surface water. Chlorothalonil degradates are known to leach through soil into ground water under certain conditions as a result of label use. Use of this product in areas where soils are permeable, particularly where the water table is shallow, may result in ground water contamination.

The pesticide label also includes other important information, including directions for use.

#### Designated Hazardous Substances and Reportable Quantities (40 CFR 302.4):



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| Chemical Name | CAS No. | Typical %wt. | RQ (Pounds) |
|---------------|---------|--------------|-------------|
| None          | ----    | -----        | -----       |

**SARA 311/312 - Hazard Categories:** See SECTION 2 - HAZARDS IDENTIFICATION

**SARA 313 - Toxic Chemicals (40 CFR 372):**

| Chemical Name  | CAS No.   | Typical %wt. |
|----------------|-----------|--------------|
| Chlorothalonil | 1897-45-6 | ~ 55         |

**SARA 302 - Extremely Hazardous Substances(40 CFR 355):**

| Chemical Name | CAS No. | Typical %wt. | RQ (Pounds) | TPQ (Pounds) |
|---------------|---------|--------------|-------------|--------------|
| None          | ----    | -----        | -----       |              |

**Proposition 65 (California):**

| Chemical Name  | CAS No.   | Typical %wt. | Hazards |
|----------------|-----------|--------------|---------|
| Chlorothalonil | 1897-45-6 | ~ 55         | Cancer  |

## SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: 1-16

**Date of preparation:** December 7, 2021

**Hazard Statement(s) and Risk Phrases Listed in: SECTION 2:/ SECTION 3:**

**Hazard Statement(s)**

- H317: May cause an allergic skin reaction.
- H318: Causes serious eye damage.
- H330: Fatal if inhaled.
- 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.

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