

## 1. Identification

**Product identifier** Bayleton® 50%

**Other means of identification**

**SDS number** 371

**Recommended use** Systemic Fungicide.

**Recommended restrictions** Keep out of the Reach of Children!

**Product registration number** 264-737-5481

### Manufacturer/Importer/Supplier/Distributor information

#### Manufacturer

**Company name** AMVAC Chemical Corporation

**Address** 4100 E Washington Blvd  
Los Angeles, CA 90023 USA

**Telephone** AMVAC Chemical Corp 323-264-3910  
AMVAC Chemical Corp 323-268-1028 (FAX)

**Website** www.Amvac-Chemical.com

**E-mail** CustServ@Amvac-Chemical.com

**Emergency phone number**

Medical	888-681-4261
CHEMTREC® (USA+Canada)	800-424-9300
Product Use	888-462-6822
CHEMTREC® (Outside USA)	+1-703-527-3887

## 2. Hazard(s) identification

**Physical hazards** Not classified.

**Health hazards**

Acute toxicity, oral	Category 4
Acute toxicity, inhalation	Category 4
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2B
Sensitization, skin	Category 1B

**Environmental hazards** Hazardous to the aquatic environment, long-term hazard Category 2

**OSHA defined hazards** Not classified.

**Label elements**



**Signal word** Warning

**Hazard statement** Causes skin and eye irritation. Harmful if swallowed or if inhaled.

**Precautionary statement**

**Prevention** Avoid breathing dust/mist/spray. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves.

**Response** If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see product label). Take off contaminated clothing and wash before reuse. 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 SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

**Storage** Store in original container.

<b>Disposal</b>	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
<b>Hazard(s) not otherwise classified (HNOC)</b>	No other hazards known.
<b>Supplemental information</b>	<p>United States Environmental Protection Agency Labeling Requirements: This chemical is a pesticide product registered by 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. The pesticide label also includes other important information, including directions for use.</p> <p>CAUTION.</p> <p>Harmful if swallowed, absorbed through the skin or inhaled. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Avoid breathing spray mist.</p>

### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
TRIADIMEFON		43121-43-3	50

#### Additional components

Chemical name	CAS number	%
free respirable Crystalline (quartz) Silica	14808-60-7	<0.4
SODIUM DODECYLBENZENE SULFONATE	25155-30-0	<2.0

### 4. First-aid measures

<b>Inhalation</b>	Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a physician or poison control center immediately.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Wash off immediately with plenty of water for at least 15 minutes. Call a physician or poison control center immediately.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Call a physician or poison control center immediately.
<b>Ingestion</b>	Call a physician or poison control center immediately. Rinse mouth thoroughly. Do not induce vomiting without advice from poison control center. Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not leave victim unattended.
<b>Most important symptoms/effects, acute and delayed</b>	None known.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. There is no specific antidote.
<b>General information</b>	When possible, have the product container or label with you when calling a poison control center or doctor or going for treatment.

### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Dry chemical, CO2, water spray or regular foam.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	Explosion hazard: Avoid generating dust; fine dust dispersed in air in sufficient concentrations and in the presence of an ignition source is a potential dust explosion hazard.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.

### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Use appropriate containment to avoid environmental contamination. Avoid contact with spilled material. Wear appropriate personal protective equipment.
--	---

**Methods and materials for containment and cleaning up**

Avoid dust formation. Sweep up or vacuum up spillage and collect in suitable container for disposal. Clean surface thoroughly to remove residual contamination. Clean up in accordance with all applicable regulations.

**Environmental precautions**

Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage****Precautions for safe handling**

Avoid breathing dust. Wear appropriate personal protective equipment recommended in section 8. Wash hands after handling and before eating, drinking, chewing gum, using tobacco, using the toilet or applying cosmetics..

Remove Personal Protective Equipment (PPE) immediately after handling this product. Before removing gloves clean them with soap and water. Remove soiled clothing immediately and clean thoroughly before using again. Wash thoroughly and put on clean clothing.

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

Store in original tightly closed container. Keep tightly closed in a dry and cool place. Prevent contamination with other crop protection products, fertilizers, food, and feed. Keep out of the reach of children. Keep locked up.

**8. Exposure controls/personal protection****Occupational exposure limits****US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)**

Additional components	Type	Value	Form
Nuisance Dust	PEL	5 mg/m <sup>3</sup>	Respirable fraction.
		15 mg/m <sup>3</sup>	Total dust.

**US. OSHA Table Z-3 (29 CFR 1910.1000)**

Additional components	Type	Value	Form
Nuisance Dust	TWA	5 mg/m <sup>3</sup>	Respirable fraction.
		15 mg/m <sup>3</sup>	Total dust.
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.3 mg/m <sup>3</sup>	Total dust.
		0.1 mg/m <sup>3</sup>	Respirable.

**US. ACGIH Threshold Limit Values**

Additional components	Type	Value	Form
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.025 mg/m <sup>3</sup>	Respirable fraction.

**US. NIOSH: Pocket Guide to Chemical Hazards**

Additional components	Type	Value	Form
free respirable Crystalline (quartz) Silica (CAS 14808-60-7)	TWA	0.05 mg/m <sup>3</sup>	Respirable dust.

**Biological limit values**

No biological exposure limits noted for the ingredient(s).

**Appropriate engineering controls**

Not available.

**Individual protection measures, such as personal protective equipment****Eye/face protection**

Safety glasses with side shields.

**Skin protection****Hand protection**

Chemical resistant gloves. Nitrile gloves are recommended.

**Other**

Long-sleeved shirt and long pants or coveralls, socks and closed toe shoes are required.

**Respiratory protection**

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

**Thermal hazards**

Not available.

**General hygiene considerations**

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions for washables, use detergent and warm/tepid water. Keep and wash PPE separately from other laundry.

**9. Physical and chemical properties****Appearance**

Brown granular solid

**Physical state**

Solid.

<b>Form</b>	Dry flowable water dispersible granules.
<b>Color</b>	Brown
<b>Odor</b>	Sharp musty odor
<b>Odor threshold</b>	Not available.
<b>pH</b>	7 - 8.5 (5% aqueous suspension)
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Flash point</b>	Not available.
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Not available.
<b>Vapor density</b>	Not available.
<b>Relative density</b>	Not available.
<b>Solubility(ies)</b>	
<b>Solubility (water)</b>	Not available.
<b>Auto-ignition temperature</b>	Not available.
<b>Decomposition temperature</b>	Not available.
<b>Viscosity</b>	Not available.
<b>Other information</b>	
<b>Bulk density</b>	35 - 37 lb/ft <sup>3</sup>
<b>Explosivity</b>	Dust may form explosive mixture in air.

## 10. Stability and reactivity

<b>Reactivity</b>	Not available.
<b>Chemical stability</b>	Stable at normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.
<b>Conditions to avoid</b>	Exposure to moisture. Heat, flames and sparks.
<b>Incompatible materials</b>	Strong oxidizing agents. Acids.
<b>Hazardous decomposition products</b>	Upon decomposition this product emits acrid dense smoke with carbon dioxide, carbon monoxide, water and other products of combustion.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Inhalation</b>	Harmful if inhaled.
<b>Skin contact</b>	Slight skin irritant. May cause sensitization by skin contact. Harmful if absorbed through the skin.
<b>Eye contact</b>	Moderate Irritation
<b>Ingestion</b>	Harmful if swallowed.

**Symptoms related to the physical, chemical and toxicological characteristics** Not available.

### Information on toxicological effects

#### Acute toxicity

Product	Species	Test Results
Bayleton® 50%		
<b>Acute</b>		
<b>Dermal</b>		
<i>Dust</i>		
LD50	Rabbit	> 2000 mg/kg (combined sexes)
<b>Inhalation</b>		
<i>Dust</i>		
LC50	Rat	> 14 mg/l/4h (female) > 3.5 mg/l/4h (combined sexes)
<b>Oral</b>		
<i>Dust</i>		
LD50	Rat	1470 mg/kg (female) 812 mg/kg (male)

Components	Species	Test Results
TRIADIMEFON (CAS 43121-43-3)		
<b>Acute</b>		
<b>Dermal</b>		
LD50	Rabbit	> 2000 mg/kg
	Rat	310 mg/kg
<b>Inhalation</b>		
LC50	Rat	3.27 mg/l, 4 Hours
<b>Oral</b>		
LD50	Dog	> 500 mg/kg
	Mouse	1000 mg/kg
	Rabbit	250 mg/kg
	Rat	90 mg/kg

**Skin corrosion/irritation** Not available.

**Irritation Corrosion - Skin**

Bayleton® 50%

Result: Slight irritation  
Species: Rabbit  
Organ: skin

**Serious eye damage/eye irritation**

**Irritation Corrosion - Eye**

Bayleton® 50%

Result: Minimal irritation  
Species: Rabbit  
Organ: eye

**Respiratory or skin sensitization**

**Respiratory sensitization**

Not available.

**Skin sensitization**

Not available.

**Sensitization**

Bayleton® 50%

Species: Rabbit  
Organ: skin

**Germ cell mutagenicity**

Triadimefon was not mutagenic or genotoxic in a battery of in vitro and in vivo tests.

**Carcinogenicity**

Triadimefon was not carcinogenic in a lifetime feeding study in rats. Triadimefon caused an increased incidence of tumors in mice in the following organ(s): liver. The mechanism that triggers these tumors is not relevant to humans.

**IARC Monographs. Overall Evaluation of Carcinogenicity**

free respirable Crystalline (quartz) Silica (CAS 14808-60-7)

1 Carcinogenic to humans.

**OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

Not listed.

## US. National Toxicology Program (NTP) Report on Carcinogens

free respirable Crystalline (quartz) Silica (CAS  
14808-60-7)

Known To Be Human Carcinogen.

<b>Reproductive toxicity</b>	Triadimefon caused reproduction toxicity in a two-generation study in rats only at dose levels also toxic to the parent animals. Triadimefon caused reduced fertility, a reduced pup survival.
<b>Specific target organ toxicity - single exposure</b>	Not available.
<b>Specific target organ toxicity - repeated exposure</b>	Triadimefon did not cause specific target organ toxicity in experimental animal studies.
<b>Aspiration hazard</b>	Not available.

## 12. Ecological information

### Ecotoxicity

Additional components	Species	Test Results	
SODIUM DODECYLBENZENE SULFONATE (CAS 25155-30-0)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	3.26 - 14.51 mg/l, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	3.2 - 5.6 mg/l, 96 hours

<b>Persistence and degradability</b>	Substance is not readily biodegradable.
<b>Bioaccumulative potential</b>	Triadimefon: Bioconcentration factor (BCF) 31 Does not bioaccumulate.
<b>Partition coefficient n-octanol / water (log Kow)</b>	
TRIADIMEFON	2.77
<b>Mobility in soil</b>	Moderately mobile in soils.
<b>Other adverse effects</b>	Not available.

## 13. Disposal considerations

<b>Disposal instructions</b>	Collect and reclaim or dispose in sealed containers at licensed waste disposal site according to all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	Not available.
<b>Contaminated packaging</b>	Do not re-use empty containers. Empty containers should be taken to an approved waste handling site for recycling or disposal according to all applicable regulations.

## 14. Transport information

### DOT

<b>UN number</b>	UN3077
<b>UN proper shipping name</b>	Environmentally hazardous substances, solid, n.o.s. (Triadimefon Mixture)
<b>Transport hazard class(es)</b>	
<b>Class</b>	9
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	9
<b>Packing group</b>	III
<b>Special precautions for user</b>	Not available.
<b>Special provisions</b>	8, 146, 335, A112, B54, IB8, IP3, N20, T1, TP33
<b>Packaging exceptions</b>	155
<b>Packaging non bulk</b>	213
<b>Packaging bulk</b>	240

### IATA

<b>UN number</b>	UN3077
<b>UN proper shipping name</b>	Environmentally hazardous substances, solid, n.o.s. (Triadimefon Mixture)
<b>Transport hazard class(es)</b>	
<b>Class</b>	9
<b>Subsidiary risk</b>	-
<b>Label(s)</b>	9

**Packing group** III  
**Environmental hazards** No.  
**Special precautions for user** Not available.  
**Other information**

**Passenger and cargo aircraft** No limit  
**Cargo aircraft only** No limit

#### IMDG

**UN number** UN3077  
**UN proper shipping name** Environmentally hazardous substances, solid, n.o.s. (Triadimefon Mixture)  
**Transport hazard class(es)**  
**Class** 9  
**Subsidiary risk** -  
**Label(s)** 9  
**Packing group** III  
**Environmental hazards**  
**Marine pollutant** No.  
**EmS** Not available.  
**Special precautions for user** Not available.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code** Not available.

DOT; IATA; IMDG



## 15. Regulatory information

### US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. This product is currently registered under EPA/FIFRA Regulations. It is a violation of Federal law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product is excluded from listing requirements under EPA/TSCA.

#### TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

#### CERCLA Hazardous Substance List (40 CFR 302.4)

SODIUM DODECYLBENZENE SULFONATE (CAS 25155-30-0) Listed.

#### SARA 304 Emergency release notification

Not regulated.

#### OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### Superfund Amendments and Reauthorization Act of 1986 (SARA)

**Hazard categories**  
Immediate Hazard - Yes  
Delayed Hazard - No  
Fire Hazard - No  
Pressure Hazard - No  
Reactivity Hazard - No

#### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
TRIADIMEFON	43121-43-3	50

**Other federal regulations****Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Not regulated.

**Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)**

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.**US state regulations****US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)**

Not listed.

**US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))**

free respirable Crystalline (quartz) Silica (CAS 14808-60-7)

**US. Massachusetts RTK - Substance List**free respirable Crystalline (quartz) Silica (CAS 14808-60-7)  
SODIUM DODECYLBENZENE SULFONATE (CAS 25155-30-0)**US. New Jersey Worker and Community Right-to-Know Act**free respirable Crystalline (quartz) Silica (CAS 14808-60-7)  
SODIUM DODECYLBENZENE SULFONATE (CAS 25155-30-0)  
TRIADIMEFON (CAS 43121-43-3)**US. Pennsylvania Worker and Community Right-to-Know Law**free respirable Crystalline (quartz) Silica (CAS 14808-60-7)  
SODIUM DODECYLBENZENE SULFONATE (CAS 25155-30-0)**US. Rhode Island RTK**SODIUM DODECYLBENZENE SULFONATE (CAS 25155-30-0)  
TRIADIMEFON (CAS 43121-43-3)**US. California Proposition 65****US - California Proposition 65 - CRT: Listed date/Carcinogenic substance**

free respirable Crystalline (quartz) Silica (CAS 14808-60-7) Listed: October 1, 1988

**US - California Proposition 65 - CRT: Listed date/Developmental toxin**

TRIADIMEFON (CAS 43121-43-3) Listed: March 30, 1999

**US - California Proposition 65 - CRT: Listed date/Female reproductive toxin**

TRIADIMEFON (CAS 43121-43-3) Listed: March 30, 1999

**US - California Proposition 65 - CRT: Listed date/Male reproductive toxin**

TRIADIMEFON (CAS 43121-43-3) Listed: March 30, 1999

**International Inventories**

Country(s) or region	Inventory name	On inventory (yes/no)*
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

**16. Other information, including date of preparation or last revision**

<b>Issue date</b>	05-05-2015
<b>Version #</b>	01
<b>Further information</b>	Not available.
<b>HMIS® ratings</b>	Health: 1 Flammability: 1 Physical hazard: 0
<b>NFPA ratings</b>	Health: 1 Flammability: 1 Instability: 0



**Disclaimer**

This information is provided for the limited guidance to the user. While AMVAC believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

©2015 AMVAC Chemical Corporation. All Rights Reserved. AMVAC and the Beaker Logo are trademarks owned by AMVAC Chemical Corporation. Bayleton is registered as a US trademark by Bayer Cropscience, Inc. Chemtrec is a trademark of the American Chemistry Council, Inc. HMIS is a trademark of the American Coatings Association. NFPA is a trademark of the National Fire Protection Association, Inc. ACGIH is a trademark of the American Conference of Governmental Industrial Hygienists.