

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.

Disposal	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.
Hazard(s) not otherwise classified (HNOC)	No other hazards known.
Supplemental information	<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

Inhalation	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.
Skin contact	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.
Eye contact	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.
Ingestion	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.
Most important symptoms/effects, acute and delayed	None known.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. There is no specific antidote.
General information	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

Suitable extinguishing media	Dry chemical, CO2, water spray or regular foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	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.
Special protective equipment and precautions for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Use appropriate containment to avoid environmental contamination. Avoid contact with spilled material. Wear appropriate personal protective equipment.
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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 ³	Respirable fraction.
		15 mg/m ³	Total dust.

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

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

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

10. Stability and reactivity

Reactivity	Not available.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Exposure to moisture. Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents. Acids.
Hazardous decomposition products	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

Inhalation	Harmful if inhaled.
Skin contact	Slight skin irritant. May cause sensitization by skin contact. Harmful if absorbed through the skin.
Eye contact	Moderate Irritation
Ingestion	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%		
Acute		
Dermal		
<i>Dust</i>		
LD50	Rabbit	> 2000 mg/kg (combined sexes)
Inhalation		
<i>Dust</i>		
LC50	Rat	> 14 mg/l/4h (female) > 3.5 mg/l/4h (combined sexes)
Oral		
<i>Dust</i>		
LD50	Rat	1470 mg/kg (female) 812 mg/kg (male)

Components	Species	Test Results
TRIADIMEFON (CAS 43121-43-3)		
Acute		
Dermal		
LD50	Rabbit	> 2000 mg/kg
	Rat	310 mg/kg
Inhalation		
LC50	Rat	3.27 mg/l, 4 Hours
Oral		
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.

Reproductive toxicity	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.
Specific target organ toxicity - single exposure	Not available.
Specific target organ toxicity - repeated exposure	Triadimefon did not cause specific target organ toxicity in experimental animal studies.
Aspiration hazard	Not available.

12. Ecological information

Ecotoxicity

Additional components	Species	Test Results	
SODIUM DODECYLBENZENE SULFONATE (CAS 25155-30-0)			
Aquatic			
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

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

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site according to all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Not available.
Contaminated packaging	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

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
Special precautions for user	Not available.
Special provisions	8, 146, 335, A112, B54, IB8, IP3, N20, T1, TP33
Packaging exceptions	155
Packaging non bulk	213
Packaging bulk	240

IATA

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 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 Listfree 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

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

Disclaimer

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