according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 08/12/2015 Revision date: 07/27/2017 Version: 3.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : ACRAMITE 50 WS
Other means of identification : EPA Reg. No. 400-503

1.2. Recommended use and restrictions on use

Recommended use : Miticide

Restrictions on use : Agriculture, For professional users only

1.3. Supplier

MacDermid Agricultural Solutions, Inc.

245 Freight Street

Waterbury, CT 06702 - USA

T 1-866-761-9397

sds.request@arysta.com

1.4. Emergency telephone number

Emergency number : FOR 24-HOUR MEDICAL EMERGENCY ASSISTANCE CALL PROPHARMA: 1-866-303-6952

or +1-651-603-3432

FOR 24-HOUR CHEMICAL EMERGENCY (Spill, leaks, fire, exposure or accident) call

May cause damage to organs through prolonged or repeated exposure

CHEMTREC: 1-800-424-9300 or +1-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Serious eye damage/eye H320 Causes eye irritation

irritation, Category 2B
Skin sensitisation, Category H317 May cause an allergic skin reaction

1

Carcinogenicity, Category H350 May cause cancer (Inhalation)

Specific target organ H373

toxicity — Repeated

exposure, Category 2

Hazardous to the aquatic H400 Very toxic to aquatic life environment — Acute

Hazard, Category 1

Hazardous to the aquatic H410 Very toxic to aquatic life with long lasting effects

environment — Chronic Hazard, Category 1

Combustible Dust May form combustible dust concentrations in air

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS-US labelling

Hazard pictograms (GHS-US)







GHS07

GHS0

GHS09

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : May form combustible dust concentrations in air

H317 - May cause an allergic skin reaction

H320 - Causes eye irritation

H350 - May cause cancer (Inhalation)

H373 - May cause damage to organs through prolonged or repeated exposure

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

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P260 - Do not breathe dust

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P264 - Wash hands thoroughly after handling

P272 - Contaminated work clothing must not be allowed out of the workplace

P273 - Avoid release to the environment

P280 - Wear protective gloves, protective clothing

P302+P352 - If on skin: Wash with plenty of soap, water

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

P314 - Get medical advice/attention if you feel unwell

P321 - Specific treatment (see First aid measures on this label)

P333+P313 - If skin irritation or rash occurs: Get medical advice/attention

P337+P313 - If eye irritation persists: Get medical advice/attention

P363 - Wash contaminated clothing before reuse

P391 - Collect spillage P405 - Store locked up

P501 - Dispose of contents/container to Collection point

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification

: May cause slight irritation to the skin. Dust from this product may cause respiratory irritation. Dust may form explosive mixture in air.

2.4. Unknown acute toxicity (GHS US)

7.45% of the mixture consists of ingredient(s) of unknown acute toxicity (Oral)

7.45% of the mixture consists of ingredient(s) of unknown acute toxicity (Dermal)

7.45% of the mixture consists of ingredient(s) of unknown acute toxicity (Inhalation (Dust/Mist))

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
Bifenazate	(CAS-No.) 149877-41-8	51.7	Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 Comb. Dust
Sodium 2-[methyloleoylamino]ethane-1-sulphonate	(CAS-No.) 137-20-2	1 – 3	Eye Irrit. 2A, H319
Silicon dioxide (cristobalite)	(CAS-No.) 14808-60-7	0.1 – 1	Carc. 1A, H350

^{*}Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of hazard classes and H-statements : see section 16

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If medical advice is needed, have product container or label at hand.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Artificial respiration and/or oxygen if necessary.

First-aid measures after skin contact : Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

First-aid measures after eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Irrigate copiously with clean, fresh water for at least 15 minutes, holding the eyelids apart. Obtain medical attention if pain, blinking or redness persists.

First-aid measures after ingestion : Do NOT induce vomiting. Rinse mouth. Get medical advice/attention.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause damage to organs through prolonged or repeated exposure.

Symptoms/effects after inhalation : Dust from this product may cause irritation to the respiratory tract. May cause cancer by

inhalation.

Symptoms/effects after skin contact : May cause an allergic skin reaction. May cause slight irritation.

Symptoms/effects after eye contact : Causes eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

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SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Carbon dioxide. Dry powder. Foam. Water fog.

Unsuitable extinguishing media : Water spray.

5.2. Specific hazards arising from the chemical

Fire hazard : Burning produces irritating, toxic and noxious fumes.

Explosion hazard : Dust may form explosive mixture in air.

Reactivity : No dangerous reactions known.

5.3. Special protective equipment and precautions for fire-fighters

Firefighting instructions : Use extinguishing media appropriate for surrounding fire. Do not allow run-off from fire fighting

to enter drains or water courses.

Protection during firefighting : Wear a self contained breathing apparatus. Wear fire/flame resistant/retardant clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with skin, eyes and clothing. Avoid creating or spreading dust. Use personal

protective equipment as required. Do not breathe dust.

6.1.1. For non-emergency personnel

Protective equipment : Refer to section 8.2.

Emergency procedures : Evacuate unnecessary personnel. If dust are formed : No open flames, no sparks, and no

smokina.

6.1.2. For emergency responders

Protective equipment : Refer to section 8.2.

Emergency procedures : Ventilate area. Stop leak if safe to do so. Eliminate every possible source of ignition.

6.2. Environmental precautions

Do not discharge into drains or the environment. Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment : Contain and collect as any solid. Avoid generating dust.

Methods for cleaning up : Minimize generation of dust. On land, sweep or shovel into suitable containers.

6.4. Reference to other sections

Section 13: disposal information. Section 7: safe handling. Section 8: personal protective equipment.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do not breathe dust. Avoid creating or spreading dust. Avoid contact with skin, eyes and

clothing. Use only outdoors or in a well-ventilated area.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated

clothing before reuse. Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when

leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Do not store near food, foodstuffs, drugs, or potable water supplies. Keep container tightly

closed. Store at room temperature.

Incompatible products : Strong bases. Strong acids. Strong oxidizers. Heat and ignition sources : Keep away from heat, sparks and flame.

Prohibitions on mixed storage : Incompatible materials.

Storage area : Store in dry, cool, well-ventilated area. Store away from heat.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Bifenazate (149877-41-8)

Not applicable

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Sodium 2-[methyloleoylamino]ethane-1-sulphonate (137-20-2)		
Not applicable		
Silicon dioxide (cristobalite) (14808-60-7)		
ACGIH	ACGIH TWA (mg/m³)	0.025 mg/m³
ACGIH	Remark (ACGIH)	(respirable dust)
OSHA	OSHA PEL (TWA) (ppm)	250 mppcf
OSHA	Remark (OSHA)	(3) See Table Z-3.
NIOSH	NIOSH REL (TWA) (mg/m³)	0.05 mg/m³
NIOSH	Remark (NIOSH)	(respirable dust)

8.2. Appropriate engineering controls

Appropriate engineering controls : Mechanical ventilation is recommended. Ensure good ventilation of the work station.

Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Emergency safety showers should be available in the immediate vicinity of any

potential exposure.

Environmental exposure controls : Prevent leakage or spillage. Prevent contaminated water run-off.

8.3. Individual protection measures/Personal protective equipment

Personal protective equipment : Avoid all unnecessary exposure.

Hand protection : Wear suitable gloves resistant to chemical penetration.

Eye protection : Safety glasses with side shields. Skin and body protection : Long sleeved protective clothing.

Respiratory protection : Where excessive dust may result, use approved respiratory protection equipment. respirator

with combination filter for vapour/particles.

Consumer exposure controls : Keep out of reach of children.

Other information : Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Powder.
Colour : white Off-white
Odour : No data available
Odour threshold : No data available

pH : 10.3

Explosive limits

Explosive properties
Oxidising properties

Melting point No data available Freezing point : No data available : No data available Boiling point Flash point No data available Relative evaporation rate (butylacetate=1) : 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 No data available Solubility slightly soluble. Log Pow No data available Auto-ignition temperature : No data available Decomposition temperature : No data available Viscosity, kinematic No data available Viscosity, dynamic : No data available

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No data availableNo data available

: No data available

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9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known.

10.2. Chemical stability

Dust may form flammable and explosive mixture with air.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Direct sunlight. Heat.

10.5. Incompatible materials

Strong acids. Strong bases. Strong oxidizers.

10.6. Hazardous decomposition products

Burning produces irritating, toxic and noxious fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Likely routes of exposure : Inhalation; Skin and eye contact

Acute toxicity : Not classified

ACRAMITE 50 WS		
LD50 oral rat	> 5000 mg/l	
LD50 dermal rabbit	> 5000 mg/kg	
LC50 inhalation rat (mg/l)	> 5.2 mg/l/4h	
Rifenazate (149877-41-8)		

Bitenazate (1498//-41-8)	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg

Skin corrosion/irritation : Not classified

(Slightly irritant but not relevant for classification)

Serious eye damage/irritation : Causes eye irritation.

(Slightly irritating to eyes.)

Respiratory or skin sensitisation : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : May cause cancer (Inhalation).

Bifenazate (149877-41-8)	
NOAEL (chronic, oral, animal/male, 2 years)	0.001 mg/kg bodyweight rat
NOAEL (chronic, oral, animal/female, 2 years)	0.0012 mg/kg bodyweight rat

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Silicon dioxide (cristobalite) (14808-60-7)	
IARC group	1 - Carcinogenic to humans

Reproductive toxicity : Not classified Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated : May cause damage to organs through prolonged or repeated exposure. exposure)

Bifenazate (149877-41-8)	
LOAEL (oral, rat, 90 days)	13.8 mg/kg bodyweight/day
NOAEL (oral, rat, 90 days)	> 15 mg/kg bodyweight/day early embryonic development; >200 mg/kg bodyweight/day Teratogenicity (rabbit, female)
Additional information	Affected organs: liver, Thymus and spleen, bone marrow, lymphatic node, kidneys, adrenal glands

Aspiration hazard : Not classified

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Symptoms/effects after inhalation : Dust from this product may cause irritation to the respiratory tract. May cause cancer by

inhalation.

Symptoms/effects after skin contact : May cause an allergic skin reaction. May cause slight irritation.

Symptoms/effects after eye contact : Causes eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

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

Bifenazate (149877-41-8)	
LC50 fish 1	0.58 mg/l 96 h Lepomis macrochirus
LC50 other aquatic organisms 1	0.42 mg/l 96 h Crassostrea virginica
EC50 Daphnia 1	0.5 mg/l 48 h
ErC50 (algae)	> 2.02 mg/l 96 hSelenastrum capricornutum
ErC50 (other aquatic plants)	1.4 mg/l 96 h Navicula pelliculosa
NOEC (acute)	0.25 mg/l 96 h Selenastrum capricornutum
NOEC chronic fish	0.017 mg/l 87 d Oncorhynchus mykiss
NOEC chronic crustacea	0.15 mg/l 21 d Daphnia magna
NOEC chronic algae	> 3.82 mg/l 7 d Lemna gibba

12.2. Persistence and degradability

ACRAMITE 50 WS	
Persistence and degradability	May cause long-term adverse effects in the environment.
Bifenazate (149877-41-8)	
Bifenazate (149877-41-8)	

12.3. Bioaccumulative potential

ACRAMITE 50 WS	
Bioaccumulative potential	Not established.
Bifenazate (149877-41-8)	
Log Pow	3.4 @ 25 °C

12.4. Mobility in soil

ACRAMITE 50 WS	
Ecology - soil	No additional information available.

12.5. Other adverse effects

Other information : No additional information available.

SECTION 13: Disposal considerations

13.1. Disposal methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : Do not allow into drains or water courses.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Non-bulk (<= 882 Pounds / 400 Kg) Not Regulated

Bulk (> 882 Pounds / 400 Kg):

Transport document description : UN3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenazate), 9, III

UN-No.(DOT) : UN3077

Proper Shipping Name (DOT) : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenazate)

Packing group (DOT) : III - Minor Danger

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Hazard labels (DOT) : 9 - Class 9 (Miscellaneous dangerous materials)



Dangerous for the environment : Yes

Marine pollutant : Yes



Additional information

Emergency Response Guide (ERG) Number : 171

Other information : No supplementary information available.

Transport by sea

IMDG

Transport hazard class(es) (IMDG) : 9



Marine pollutant : Yes UN-No. (IMDG) : 3077

Transport document description (IMDG) : UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenazate), 9,

III, MARINE POLLUTANT

Class (IMDG) : 9 - Miscellaneous dangerous substances and articles

Packing group (IMDG) : III - substances presenting low danger

EmS-No. (Fire) : F-A EmS-No. (Spillage) : S-F

Air transport

IATA

Transport hazard class(es) (IATA) : 9



Marine pollutant : Yes UN-No. (IATA) : 3077

Transport document description (IATA) : UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Bifenazate), 9,

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Class (IATA) : 9 - Miscellaneous Dangerous Goods

Packing group (IATA) : III - Minor Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Bifenazate (149877-41-8)	
EPA TSCA Regulatory Flag	Exempt from TSCA Regulation under FIFRA Section 3 (2)(B)(ii) when used as a pesticide.

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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.:

EPA Registration Number	400-503
FIFRA Signal Word	CAUTION
FIFRA Hazard Statement	Causes moderate eye irritation. Wear protective eyewear. Prolonged or frequently repeated skin contact may cause allergic reaction in some individuals. Avoid contact with eyes or clothing. Wash thoroughly with soap and water after handling and before eating, drinking chewing gum or using tobacco.
FIFRA Other	This pesticide is toxic to birds, estuarine/marine invertebrates and fish. Do not apply directly to water, or to areas where surface water is present, or to intertidal areas below the mean high water mark. Do not contaminate water when disposing of equipment washwaters or rinsate. This product is toxic to bees exposed to direct treatment. Do not apply this product while bees are foraging the treatment area. Do not use or store near heat or open flame.

15.2. International regulations

CANADA

Silicon dioxide (cristobalite) (14808-60-7)

Listed on the Canadian DSL (Domestic Substances List) inventory.

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer, developmental and/or reproductive harm

Silicon dioxide (cristobalite) (14808-60-7)				
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 significant risk level (NSRL)
Yes	No	No	No	

Silicon dioxide (cristobalite) (14808-60-7)

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations

U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Revision date : 07/27/2017

Data sources : ACGIH (American Conference of Government Industrial Hygienists).

European Chemicals Agency (ECHA) C&L Inventory database. Accessed at http://echa.europa.eu/web/guest/information-on-chemicals/cl-inventory-database.

Krister Forsberg and S.Z. Mansdorf, "Quick Selection Guide to Chemical Protective Clothing",

Fifth Edition.

Manufacturer Information.

National Fire Protection Association. Fire Protection Guide to Hazardous Materials; 10th

edition.

NIOSH Occupational Health Guide for chemical Substances - Vol. II, September, 1978.

OSHA 29CFR 1910.1200 Hazard Communication Standard.

TSCA Chemical Substance Inventory. Accessed at

http://www.epa.gov/oppt/existingchemicals/pubs/tscainventory/howto.html.

Other information : None.

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Full text of H-statements:

H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H320	Causes eye irritation
H350	May cause cancer
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H410	Very toxic to aquatic life with long lasting effects

Abbreviations and acronyms:

 ind doi only in 3.
ATE: Acute Toxicity Estimate
CAS (Chemical Abstracts Service) number
EC50: Environmental Concentration associated with a response by 50% of the test population.
GHS: Globally Harmonized System (of Classification and Labeling of Chemicals).
LD50: Lethal Dose for 50% of the test population
OSHA: Occupational Safety & Health Administration
STEL: Short Term Exposure Limits
TSCA: Toxic Substances Control Act
TWA: Time Weighted Average

NFPA health hazard

: 1 - Materials that, under emergency conditions, can cause significant irritation.

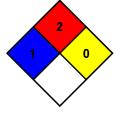
NFPA fire hazard

: 2 - Materials that must be moderately heated or exposed to relatively high ambient temperatures before ignition can

occur.

NFPA reactivity

: 0 - Normally stable, even under fire exposure conditions, and not reactive with water.



Indication of changes:

Composition/information on ingredients.

SDS Prepared by:

The Redstone Group, LLC.

6077 Frantz Rd

Suite 206

Dublin, Ohio, USA 43016

614.923.7472

www.redstonegrp.com

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

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