



Safety Data Sheet

Revision Date: 13-Dec-2017

Version 1

1. IDENTIFICATION

Product Identifier

Product Name

Fulfill

Other means of identification

SDS #

ADAMA-243

Registration Number(s)

EPA Reg. No. 66222-274

Recommended use of the chemical and restrictions on use

Recommended Use

EPA registered pesticide.

Details of the supplier of the safety data sheet

Manufacturer Address

Makhteshim Agan of North America, Inc. (d/b/a ADAMA)
3120 Highwoods Blvd., Suite 100
Raleigh, NC 27604
1-919-256-9300

Emergency Telephone Number

Emergency Telephone (24 hr)

For fire, spill and/or leak contact INFOTRAC:
1-800-535-5053 (North America) 1-352-323-3500 (International)
For medical emergencies and health/safety inquiries, contact ProPharma Group:
1-877-250-9291

2. HAZARDS IDENTIFICATION

This chemical is a product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-EPA registered chemicals. Please see Section 15 for additional EPA information.

Appearance Light beige to brown granules

Physical state Solid

Odor Weak odor

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4
Carcinogenicity	Category 1A
Specific target organ toxicity (single exposure)	Category 3
Specific target organ toxicity (repeated exposure)	Category 2
Combustible Dust	

Signal Word

Danger

Hazard statements

Harmful if inhaled
May cause cancer
May cause respiratory irritation
May cause damage to organs through prolonged or repeated exposure
May form combustible dust concentrations in air

**Precautionary Statements - Prevention**

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Do not breathe dust
 Use only outdoors or in a well-ventilated area
 Wear protective gloves/protective clothing/eye protection/face protection
 Wash face, hands and any exposed skin thoroughly after handling

Precautionary Statements - Response

If exposed or concerned: Get medical advice/attention
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Call a poison center or doctor/physician if you feel unwell

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of in accordance with federal, state and local regulations

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Weight-%
4,5-Dihydro-6-methyl-4(3-pyridylmethyleneamino)-1,2,4-triazin-3(2H)-one	123312-89-0	50
Silica, Quartz	14808-60-7	Proprietary
Diatomaceous Earth	61790-53-2	Proprietary
Other ingredients	Proprietary	<50

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

First Aid Measures

General Advice	In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).
Eye Contact	Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present after the first five minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Skin Contact	Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Inhalation	Move person 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 poison control center or doctor for further treatment advice.
Ingestion	Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

Most important symptoms and effects

Symptoms May cause respiratory irritation.

Indication of any immediate medical attention and special treatment needed

Notes to Physician No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. FIRE-FIGHTING MEASURES**Suitable Extinguishing Media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment. Carbon dioxide, dry chemical, foam. If water is used to fight fire, dike and collect runoff.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Fire will spread by burning with flame. Dust can form an explosive mixture with air.

Hazardous Combustion Products Smoke, fumes or vapors, and oxides of carbon.

Explosion Data

Sensitivity to Static Discharge 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.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

Personal Precautions Use personal protective equipment as required.

For Emergency Responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for Containment Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Sweep up material and place in a compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

Methods for Clean-Up Carefully sweep, scoop or vacuum and place in suitable container. Avoid generating dust or accumulating dust. Avoid dust dispersal in the air (i.e. cleaning dust surfaces with compressed air). If possible, complete cleanup on a dry basis. Spilled material can be a slipping hazard. Eliminate flames, sparks, excessive temperatures and oxidizing agents. Non-sparking tools should be used.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling

Handle in accordance with good industrial hygiene and safety practice. Use only with adequate ventilation. Avoid generation of dust. Avoid breathing dusts. Avoid contact with skin and eyes. Minimize dust generation and accumulation. Ensure that dust does not accumulate on surfaces. Flames, hot surfaces, mechanical sparks and electrostatic discharges can serve as ignition sources for this material. Electrical equipment should be compatible with the flammability characteristics of this material. The flammability characteristics will be made worse if the material contains traces of flammable solvents or is handled in the presence of flammable solvents.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area. Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Store in closed, properly labeled containers in a cool, ventilated area. Do not transfer to unmarked containers. Store in oil in closed containers away from heat, sparks, open flame, or oxidizing materials. Store locked up.

Incompatible Materials

Oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
Silica, Quartz 14808-60-7	TWA: 0.025 mg/m ³ respirable particulate matter	TWA: 50 µg/m ³ TWA: 50 µg/m ³ excludes construction work, agricultural operations, and exposures that result from the processing of sorptive clays (vacated) TWA: 0.1 mg/m ³ respirable dust : (250)/(%SiO ₂ + 5) mppcf TWA respirable fraction : (10)/(%SiO ₂ + 2) mg/m ³ TWA respirable fraction	IDLH: 50 mg/m ³ respirable dust TWA: 0.05 mg/m ³ respirable dust
Diatomaceous Earth 61790-53-2	-	(vacated) TWA: 6 mg/m ³ Silica, amorphous <1% Crystalline silica : (80)/(% SiO ₂) mg/m ³ TWA TWA: 20 mppcf	-

Appropriate engineering controls

Engineering Controls

Please refer to the product label. Use only with adequate ventilation. Use process enclosures, local exhaust ventilation, or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Explosion-proof general and local exhaust ventilation. Use explosion proof electrical equipment for very high dust levels. Ensure ventilation and dust-handling systems prevent the escape of dust into work areas and there is no leakage from equipment.

Individual protection measures, such as personal protective equipment

Eye/Face Protection

Use chemical goggles if eye contact is likely. Refer to 29 CFR 1910.133 for eye and face protection regulations.

Skin and Body Protection

Where contact is likely, wear chemical-resistant gloves (such as barrier laminate, butyl rubber, nitrile rubber, neoprene rubber, natural rubber, polyethylene, polyvinyl chloride [PVC] or Viton), coveralls, socks and chemical-resistant footwear. Refer to 29 CFR 1910.138 for appropriate skin and body protection.

Respiratory Protection

A particulate filter respirator may be necessary until effective engineering controls are installed to comply with occupational exposure limits. Use a NIOSH certified respirator with any R, P or HE filter. Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection. Refer to 29 CFR 1910.134 for respiratory protection requirements.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Solid	Odor	Weak odor
Appearance	Light beige to brown granules	Odor Threshold	Not determined
Color	Light beige to brown		
<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>	
pH	7-11	1 wt/wt%	
Melting Point/Freezing Point	Not determined		
Boiling Point/Boiling Range	Not determined		
Flash Point	Not determined		
Evaporation Rate	Not determined		
Flammability (Solid, Gas)	Not determined		
Flammability Limits in Air			
Upper Flammability Limits	Not determined		
Lower Flammability Limit	Not determined		
Vapor Pressure	7.3 x 10 (-10) mmHg		
Vapor Density	Not determined		
Relative Density	0.4-0.6 g/cm ³		
Water Solubility	Not determined		
Solubility in other solvents	Not determined		
Partition Coefficient	Not determined		
Auto-ignition Temperature	430 °C / 806 °F		
Decomposition Temperature	Not determined		
Kinematic Viscosity	Not determined		
Dynamic Viscosity	Not determined		
Explosive Properties	Dust can form an explosive mixture with air		
Oxidizing Properties	Not determined		

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Hazardous polymerization does not occur.

Conditions to Avoid

None known.

Incompatible Materials

Oxidizing agents.

Hazardous Decomposition Products

Smoke, fumes or vapors, and oxides of carbon.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact	Avoid contact with eyes.
Skin Contact	Avoid contact with skin.
Inhalation	Harmful by inhalation.
Ingestion	Do not ingest.

Component Information

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
4,5-Dihydro-6-methyl-4(3-pyridylmethyleneamino)-1,2,4-triazin-3(2H)-one 123312-89-0	= 5820 mg/kg (Rat)	-	-
Other ingredients	> 90 mL/kg (Rat)	-	-

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity May cause cancer.

Chemical Name	ACGIH	IARC	NTP	OSHA
Silica, Quartz 14808-60-7	A2	Group 1	Known	X
Diatomaceous Earth 61790-53-2		Group 3		X

Legend

ACGIH (American Conference of Governmental Industrial Hygienists)

A2 - Suspected Human Carcinogen

IARC (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans

Group 3 IARC components are "not classifiable as human carcinogens"

NTP (National Toxicology Program)

Known - Known Carcinogen

OSHA (Occupational Safety and Health Administration of the US Department of Labor)

X - Present

STOT - single exposure May cause respiratory irritation.

STOT - repeated exposure May cause damage to organs through prolonged or repeated exposure.

Numerical measures of toxicity

Acute Oral LD50 (Rat): >5,000 mg/kg

Acute Dermal LD50 (Rabbit): >2,000 mg/kg

Acute Inhalation LC50 (Rat): >3.09 mg/L (4-hr)

Eye Irritation: Slightly irritating.

Dermal Irritation: Slightly irritating.

Dermal Sensitization: Not a skin sensitizer.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Component Information

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Diatomaceous Earth 61790-53-2		10000: 72 h Cyprinus carpio mg/L LC50	

Persistence/Degradability

Persistent in soil. Stable in water.

Bioaccumulation

Not determined.

Mobility

Low mobility in soil. Sinks in water (after 24 hrs)

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated Packaging

Do not reuse container. Dispose of in accordance with federal, state and local regulations.

California Hazardous Waste Status

Chemical Name	California Hazardous Waste Status
Diatomaceous Earth 61790-53-2	Toxic

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

Not regulated

IATA

Not regulated

IMDG

Not regulated

15. REGULATORY INFORMATION

International Inventories

Chemical Name	TSCA	DSL/NDSL	EINECS/E LINCS	ENCS	IECSC	KECL	PICCS	AICS
4,5-Dihydro-6-methyl-4(3-pyridylmethyleneamino)-1,2,4-triazin-3(2H)-one	X							
Silica, Quartz	X	X	X	Present	X	Present	X	X
Diatomaceous Earth	X	X		Present	X	Present	X	
Other ingredients	X	X	X	X	X	Present	X	X

Legend:

- TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances

US Federal Regulations**SARA 313**

Not determined

US State Regulations

Chemical Name	California Proposition 65
4,5-Dihydro-6-methyl-4(3-pyridylmethyleneamino)-1,2,4-triazin-3(2H)-one - 123312-89-0	Carcinogen
Silica, Quartz - 14808-60-7	Carcinogen

U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Silica, Quartz 14808-60-7	X	X	X
Diatomaceous Earth 61790-53-2	X		

EPA Pesticide Registration Number EPA Reg. No. 66622-274**EPA Statement**

This chemical is a pesticide product registered by the 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, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

EPA Pesticide Label

SIGNAL WORD: CAUTION

Harmful if absorbed through skin. Avoid contact with eyes, skin, or clothing. Wash thoroughly with soap and water after handling, and before eating, drinking, chewing gum, using tobacco, or using the toilet. Remove and wash contaminated clothing before reuse.

Difference between SDS and EPA pesticide label

	EPA	OSHA
Signal Word	Caution	Danger
Acute Toxicity- Dermal	Harmful if absorbed through the skin	N/A
Acute toxicity - Inhalation (Dusts/Mists)	N/A	Harmful if inhaled
Carcinogenicity	N/A	May cause cancer
Specific target organ toxicity (single exposure)	N/A	May cause respiratory irritation
Specific target organ toxicity (repeated exposure)	N/A	May cause damage to organs through prolonged or repeated exposure

16. OTHER INFORMATION

Additional Product Information

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

NFPA**Health Hazards****Flammability****Instability****Special Hazards**

1

1

0

None

HMIS**Health Hazards****Flammability****Physical hazards****Personal Protection**

2*

1

0

See Section 8

*Chronic Hazard Star Legend** = *Chronic Health Hazard***Revision Date:**

13-Dec-2017

Revision Note:

New format

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet