DIMILIN® 25W

Version Revision Date: MSDS Number: Country: US 1.9 05/01/2015 400000000959 Language: EN

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : DIMILIN® 25W

Product code : 40000000959

Chemical nature : Mixture

Manufacturer or supplier's details

Company name of supplier : MacDermid Agricultural Solutions, Inc

Address : 245 Freight St

Waterbury, CT United States of America 06702

Telephone : (800) 423-8569

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

Restrictions on use : Agriculture, For professional users only.

SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

DANGER!	
Appearance	powder
Colour	white
Odour	mild, musty
Hazard Summary	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. May cause cancer. Very toxic to aquatic life with long lasting effects.

OSHA Regulatory status : This material is hazardous under the criteria of the Federal

OSHA Hazard Communication Standard 29CFR 1910.1200.

GHS Classification

Carcinogenicity : Category 1A

Acute aquatic toxicity : Category 1

Chronic aquatic toxicity : Category 1

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GHS Label element

Hazard pictograms





Signal word : Danger

Hazard statements : H350 May cause cancer.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention**:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read

and understood.

P273 Avoid release to the environment.

P281 Use personal protective equipment as required.

Response:

P308 + P313 IF exposed or concerned: Get medical advice/

attention.

P391 Collect spillage.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Potential Health Effects

Inhalation : Occupational health effects due to inhalation of mineral dusts

incorporating crystalline silica (quartz, cristobalite, tridymite),

crystalline silicates (kaolin, talc) graphite or coal.

Skin : Contact with dust can cause mechanical irritation or drying of

the skin.

Eyes : Dust contact with the eyes can lead to mechanical irritation.

Chronic Exposure : Cancer

Aggravated Medical Condi-

tion

: None known.

Symptoms of Overexposure : irritant effects

Carcinogenicity:

IARC Group 1: Carcinogenic to humans

kaolin 1332-58-7

Group 1: Carcinogenic to humans

OSHA No component of this product present at levels greater than or

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equal to 0.1% is identified as a carcinogen or potential carcino-

gen by OSHA.

No component of this product present at levels greater than or

equal to 0.1% is identified as a carcinogen or potential carcino-

gen by OSHA.

NTP Known to be human carcinogen

kaolin 1332-58-7

quartz (SiO2) 14808-60-7

Known to be human carcinogen

kaolin 1332-58-7

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Mixture

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
kaolin	1332-58-7	>= 50 - < 70
N-[[(4-chlorophenyl)amino]carbonyl]-2,6-	35367-38-5	>= 20 - < 30
difluorobenzamide		222
silicon dioxide	7631-86-9	>= 1 - < 5
quartz (SiO2)	14808-60-7	>= 1 - < 5
sodium diisopropylnaphthalenesulphonate	1322-93-6	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice : No hazards which require special first aid measures.

If inhaled : Move to fresh air in case of accidental inhalation of dust or

fumes from overheating or combustion. If symptoms persist, call a physician.

In case of skin contact : Take off contaminated clothing and shoes immediately.

Wash off with soap and plenty of water.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Clean mouth with water and drink afterwards plenty of water.

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Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician.

The first aid procedure should be established in consultation Notes to physician

with the doctor responsible for industrial medicine.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circum-

stances and the surrounding environment.

Specific hazards during fire-

fighting

: Do not allow run-off from fire fighting to enter drains or water

courses.

Specific extinguishing methods Use extinguishing measures that are appropriate to local circum-

stances and the surrounding environment.

Further information Collect contaminated fire extinguishing water separately. This must

not be discharged into drains.

Fire residues and contaminated fire extinguishing water must be

disposed of in accordance with local regulations.

firefighters

Special protective equipment for : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency pro-

cedures

: Avoid dust formation.

Ensure adequate ventilation.

Environmental precautions Do not flush into surface water or sanitary sewer system.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform respec-

tive authorities.

Methods and materials for con-

tainment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion

: Avoid dust formation. Provide appropriate exhaust ventilation at

places where dust is formed.

: Use plant protection products safely. Always read the label and Advice on safe handling

product information before use.

For personal protection see section 8.

Dispose of rinse water in accordance with local and national regula-

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tions.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
kaolin	1332-58-7	TWA (Respirable fraction)	2 mg/m3	ACGIH
		TWA (total dust)	15 mg/m3	OSHA Z-1
		TWA (respirable fraction)	5 mg/m3	OSHA Z-1
		TWA (Respirable)	5 mg/m3	NIOSH REL
		TWA (total)	10 mg/m3	NIOSH REL
		TWA (Total dust)	10 mg/m3	OSHA P0
		TWA (respirable dust fraction)	5 mg/m3	OSHA P0
silicon dioxide	7631-86-9	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
		TWA	6 mg/m3 (Silica)	NIOSH REL
quartz (SiO2)	14808-60-7	TWA (Respirable fraction)	0.025 mg/m3	ACGIH
		TWA (total dust)	30 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3
		TWA (respirable)	10 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (Respirable fraction)	0.1 mg/m3	OSHA P0
		TWA (respirable dust fraction)	0.1 mg/m3	OSHA P0
		TWA (Respirable fraction)	0.025 mg/m3 (Silica)	ACGIH
		TWA (respirable dust)	0.05 mg/m3 (Silica)	NIOSH REL
		TWA (Respirable fraction)	0.025 mg/m3 (Silica)	ACGIH

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TWA (respirable dust) | 0.05 mg/m3 | NIOSH REL

Personal protective equipment

Respiratory protection : Dust safety masks are recommended when the dust concen-

tration is more than 10 mg/m3.

Hand protection

Remarks : Polyvinyl alcohol or nitrile- butyl-rubber gloves The selected

protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it. Before removing gloves clean them with soap and water.

Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Skin and body protection : Dust impervious protective suit

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures : Handle in accordance with good industrial hygiene and safety prac-

tice.

Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder

Colour : white

Odour : mild, musty

Odour Threshold : No data available

pH : 8 - 9, 1 %

Melting point/range : No data available

Boiling point/boiling range : Not applicable

Flash point : Not applicable

Evaporation rate : Not applicable

Flammability (solid, gas) : Does not sustain combustion.

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : Not applicable

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Relative vapour density : Not applicable

Relative density : No data available

Density : 0.34 g/cm3

Solubility(ies)

Water solubility : dispersible

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

: No data available

: > 377 °C Auto-ignition temperature

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : Not applicable

Viscosity, kinematic : Not applicable

Self-Accelerating decomposition

temperature (SADT)

: Method: No information available.

Oxidising potential : The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.

: Stable under normal conditions. Chemical stability

Possibility of hazardous reac-

tions

: No decomposition if used as directed. Dust may form explosive mixture in air.

Conditions to avoid : No data available

Incompatible materials : No data available

Hazardous decomposition prod-

ucts

: No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of : Inhalation

exposure

Acute toxicity

Product:

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Acute oral toxicity : LD50 (Rat): > 10,000 mg/kg

GLP: no

Acute inhalation toxicity : LC50 (Rat): > 3.52 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: An LC50/inhalation/4h/rat could not be determined because no mortality of rats was observed at the maximum

achievable concentration.

Acute dermal toxicity : LD50 (Rat): > 20,000 mg/kg

Components:

kaolin:

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

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

silicon dioxide:

Acute oral toxicity : LD50 (Rat): > 2,000 mg/kg

Method: OECD Test Guideline 401

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

GLP: no

Skin corrosion/irritation

Product:

Species: Rabbit

Result: No skin irritation

GLP: yes

Components:

silicon dioxide:

Method: OECD Test Guideline 404

Result: No skin irritation

Serious eye damage/eye irritation

Product:

Species: Rabbit

Result: No eye irritation

GLP: yes

Components:

silicon dioxide:

Result: No eye irritation

sodium diisopropylnaphthalenesulphonate:

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Result: Irritating to eyes.

Respiratory or skin sensitisation

Product:

Species: Guinea pig

Result: Did not cause sensitisation on laboratory animals.

Remarks: Non sensitizing.

Components:

silicon dioxide:

Test Type: Maximisation Test (GPMT)

Species: Guinea pig

Assessment: Did not cause sensitisation on laboratory animals.

Germ cell mutagenicity

Product:

Germ cell mutagenicity -

Assessment

: negative

Components:

silicon dioxide:

Genotoxicity in vitro : Test Type: Ames test

Metabolic activation: with and without metabolic activation

Result: negative

GLP: no

Test Type: Unscheduled DNA synthesis (UDS)

Result: negative

Genotoxicity in vivo : Test Type: in vivo assay

Species: Rat (male)
Application Route: Oral
Result: negative

GLP: no

Test Type: in vivo assay Species: Rat (male and female)

Application Route: Oral

Result: negative

GLP: no

Germ cell mutagenicity -

Assessment

: Animal testing did not show any mutagenic effects.

quartz (SiO2):

Genotoxicity in vitro : Test Type: Ames test

Metabolic activation: with and without metabolic activation

Result: negative

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Genotoxicity in vivo : Test Type: in vivo assay

Result: negative

Carcinogenicity

Product:

Carcinogenicity - Assess-

ment

: negative

Components:

kaolin:

Carcinogenicity - Assess-

ment

: Weight of evidence does not support classification as a carcinogen

silicon dioxide:

Carcinogenicity - Assess-

ment

: Animal testing did not show any carcinogenic effects.

Reproductive toxicity

Product:

Reproductive toxicity - As-

sessment

: negative

Components:

silicon dioxide:

Reproductive toxicity - Assessment

: No toxicity to reproduction No effects on or via lactation

STOT - single exposure

Components:

sodium diisopropylnaphthalenesulphonate:

Exposure routes: Inhalation

Target Organs: Respiratory system

Assessment: May cause respiratory irritation.

STOT - repeated exposure

Components:

quartz (SiO2):

Exposure routes: Inhalation

Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Further information

Product:

Remarks: No data available

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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish

Remarks: Information refers to the main component.

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): 0.000112 mg/l

Exposure time: 48 h

GLP: yes

Toxicity to algae

Remarks: Information refers to the main component.

Components:

kaolin:

aquatic invertebrates

Toxicity to daphnia and other : LC50 (Daphnia magna (Water flea)): > 1,100 mg/l

Exposure time: 48 h

N-[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide:

M-Factor (Acute aquatic tox-

icity)

: 100

M-Factor (Chronic aquatic

toxicity)

: 1,000

silicon dioxide:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 5,000 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

: EC50 (Daphnia magna (Water flea)): > 5,000 mg/l

Exposure time: 24 h

: EC50 (Algae): 440 mg/l Toxicity to algae

Exposure time: 72 h

Remarks: Information given is based on data obtained from

similar substances.

Persistence and degradability

Product:

Biodegradability : Remarks: No data available

Components:

silicon dioxide:

Biodegradability : Remarks: The methods for determining biodegradability are

not applicable to inorganic substances.

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Bioaccumulative potential

Product:

Bioaccumulation : Remarks: No data available

Mobility in soil

Product:

Mobility : Remarks: No data available

Other adverse effects

Product:

Results of PBT and vPvB

assessment

: No data available

Additional ecological infor-

mation

: Very toxic to aquatic organisms, may cause long-term adverse

effects in the aquatic environment.

An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : The product should not be allowed to enter drains, water courses or

the soil.

Do not contaminate ponds, waterways or ditches with chemical or

used container.

Offer surplus and non-recyclable solutions to a licensed disposal

company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulation

IATA-DGR

UN/ID No. : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S., Environmentally hazardous substance, solid, n.o.s.

(Diflubenzuron)

Class : 9 Packing group : III

Labels : Miscellaneous

Packing instruction (cargo

aircraft)

956

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Packing instruction (passen: 956

ger aircraft)

IMDG-Code

UN number : UN 3077

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID,

N.O.S.

(Diflubenzuron)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : no

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

National Regulations

49 CFR

UN/ID/NA number : UN 3077

Proper shipping name

(Diflubenzuron)

Class : 9
Packing group : III
Labels : CLASS 9

ERG Code : 171 Marine pollutant : no

SECTION 15. REGULATORY INFORMATION

OSHA Hazards : Combustible dust, Carcinogen

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ	Calculated product RQ
		(lbs)	(lbs)
4-chloroaniline	106-47-8	1000	*

^{*:} Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Chronic Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting

requirements of SARA Title III, Section 302.

SARA 313 : The following components are subject to reporting levels es-

tablished by SARA Title III, Section 313:

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N-[[(4- 35367-38-5 24.2549 %

chloro-

phenyl)amino]carbonyl]-2,6-difluorobenzamide

California Prop 65 WARNING! This product contains a chemical known to the

State of California to cause cancer.

kaolin 1332-58-7 quartz (SiO2) 14808-60-7 4-chloroaniline 106-47-8

FIFRA Hazard Information:

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

The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

Causes moderate eye irritation. Avoid contact with eyes or clothing.

This pesticide is toxic to aquatic invertebrates. 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 invertebrate organisms in neighboring areas. Do not contaminate water when disposing of equipment washwater or rinsate.

This product may contaminate water through drift of spray in wind. This product has a potential for runoff for several months or more after application. Poorly draining soils and soils with shallow water tables are more prone to produce runoff that contains this product. A level, well maintained vegetative buffer strip between areas to which this product is applied and surface water features such as ponds, streams, and springs will reduce the potential for contamination or water from rainfall-runoff. Runoff of this product will be reduced by avoiding applications when rainfall is forecasted to occur within 48 hours. Sound erosion control practices will reduce this product's contribution to surface water contamination.

Bees and other insect pollinators can be exposed to this pesticide from:

- Direct contact during foliar applications, or contact with residues on plant surfaces after foliar applications
- Ingestion of residues in nectar and pollen when the pesticide is applied as a foliar application. When using this product take steps to:
- Minimize exposure of this product to bees and other insect pollinators when they are foraging on pollinator attractive plants around the application site.
- Minimize drift of this product on to beehives or to off-site pollinator attractive habitat. Drift of this product onto beehives or off-site to pollinator attractive habitat can result in bee kills.

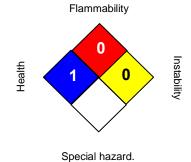
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SECTION 16. OTHER INFORMATION

Further information

NFPA:



HMIS III:

HEALTH	2*
FLAMMABILITY	0
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,

2 = Moderate, 3 = High

4 = Extreme, * = Chronic

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.

US / EN

Carechem24 International Worldwide Coverage

Emergency Phone Number

Europe:	All European Countries	+44 (0) 1235 239 670 (NCEC)
Asia Pacific:	East / South East Asia – Regional Number	+65 3158 1074
	Australia	+61 2801 44558
	New Zealand	+64 9929 1483
	China	+86 532 8388 9090
	China Taiwan	+86 10 5100 3039
	Japan	+81 345 789 341
	Indonesia	00780 3011 0293
	Malaysia	+60 3 6207 4347

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Thailand 001800 1 2066 6751 Korea +65 3158 1285 +82 (0)234 798 401 Vietnam +65 3158 1255 India +65 3158 1198 +91 1166 411 405 Pakistan +65 3158 1329 Philippines +65 31581203 Sri Lanka +65 3158 1195 **Emergency Phone Number** +65 3158 1200 Middle East / Africa: Arabic speaking countries +44 (0) 1235 239 671 South Africa +27 21 300 2732 All other countries +44 (0) 1235 239 670 United States of America and Canada <u>America</u> +1866 928 0789 +1 215 207 0061 Brazil Latin America: +55 113 711 9144 Mexico +52 555 004 8763 Chile +56 225 829 336 All other countries +44 (0) 1235 239 670