



Material Safety Data Sheet

DIMILIN® 2L

Version: 1.4

Revision Date: 08/25/2010

Print Date: 02/03/2011

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: *DIMILIN® 2L*

Product Use Description: Insect Growth Regulator

Chemical nature: Diflubenzuron

Registration number: 400-461

Company: Chemtura Corporation
199 Benson Road
Middlebury, CT
06749
United States of America

Telephone: 866-430-2775

Emergency telephone: CHEMTREC: (24 hours) 800-424-9300

:

Chemtura Corporation Emergency Response: CHEMTURA : 800-292-5898

For additional emergency telephone numbers see section 16 of the Safety Data Sheet.

Prepared by: Product Safety Department
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SECTION 2. HAZARDS IDENTIFICATION

Emergency Overview

CAUTION!

Form: liquid

Colour: off-white to tan

Odour: slight

Hazard Summary

:

May cause eye and skin irritation.

Prolonged and/or repeated exposure may cause the following effects:

Methemoglobinemia

Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.



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Potential Health Effects

- Primary Routes of Entry : Skin Absorption
Eye contact
Inhalation
- Aggravated Medical Condition : None known.
- Inhalation : Short-term harmful health effects are not expected from vapor generated at ambient temperature.
- Skin : May irritate skin.
- Eyes : May irritate eyes.
- Ingestion : Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.
- Chronic Exposure : Prolonged or repeated contact may cause the following:
Methaemoglobinemia
- Symptoms of Overexposure : The absorption of this product into the body may lead to the formation of methaemoglobine that, in sufficient concentration, causes cyanosis.

Environmental Effects

- Environmental Effects : Dangerous for the environment

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components

Component	CAS-No.	Weight percent
N-[[[(4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide	35367-38-5	22 %
Petroleum Distillates (Paraffinic)		8 - 10 %

Ingredients not precisely identified are non-hazardous and/or proprietary.

SECTION 4. FIRST AID MEASURES

First aid procedures



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- Inhalation** : If breathed in, move person into fresh air.
Give oxygen or artificial respiration if needed.
In case of bluish discoloration (lips, ear lobes, fingernails), give oxygen as quickly as possible.
Obtain medical attention.
- Skin contact** : If on clothes, remove clothes.
Wash off immediately with plenty of water for at least 15 minutes.
If skin irritation occurs, seek medical advice/attention.
Wash contaminated clothing before re-use.
Destroy contaminated shoes.
- Eye contact** : In case of eye contact, remove contact lens and rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
If symptoms persist, call a physician.
- Ingestion** : Do NOT induce vomiting.
Give small amounts of water to drink.
Call a physician or poison control centre immediately.
Never give anything by mouth to an unconscious person.

Notes to physician

- Symptoms** : The absorption of this product into the body may lead to the formation of methaemoglobine that, in sufficient concentration, causes cyanosis.
- Treatment** : Since reversion of methaemoglobin to haemoglobin occurs spontaneously after termination of exposure, moderate degrees of cyanosis need to be treated only by supportive measures.

SECTION 5. FIRE-FIGHTING MEASURES

Flammable properties

- Flash point** : 226 °F (108 °C)

Fire fighting

- Suitable extinguishing media** : Extinguishing media - large fires
Alcohol-resistant foam
Small fires:
Carbon dioxide (CO₂)
Dry chemical
Water spray
- Unsuitable extinguishing media** : Water spray jet
- Further information** : Fight fires from a safe distance.



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Move containers from fire area if possible.
Use water spray to cool unopened containers.
Prevent fire extinguishing water from contaminating surface water or the ground water system.

Protective equipment and precautions for firefighters

Specific hazards during fire fighting : Burning produces noxious and toxic fumes.
Special protective equipment for fire-fighters : Body covering protective clothing, full "turn-out" gear.
Self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions : Evacuate personnel to safe areas.
Wear suitable protective clothing, gloves and eye/face protection.
Avoid contact with skin and eyes.
Ventilate the area.

Environmental precautions : Toxic to aquatic life.
Do not allow uncontrolled discharge of product into the environment.
Do not flush into surface water or sanitary sewer system.

Methods for containment / Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust).
Shovel into suitable container for disposal.
Large spills should be collected mechanically (remove by pumping) for disposal.
Ventilate the area.

Additional advice : Keep in properly labelled containers.
Dispose of rinse water as waste water.

SECTION 7. HANDLING AND STORAGE

Handling

Handling procedures : Handle and open container with care.
Protect from contamination.
Use only in well-ventilated areas.
In case of insufficient ventilation, wear suitable respiratory equipment.
Avoid inhalation, ingestion and contact with skin and eyes.
Wear suitable protective clothing, gloves and eye/face protection.
Wash thoroughly after handling.
Keep container closed when not in use.

Storage



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- Requirements for storage areas and containers : Keep containers tightly closed in a dry, cool and well-ventilated place.
Keep only in the original container.
- Other data : Stable at normal ambient temperature and pressure.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

Components with workplace control parameters

Components / CAS-No.	Value / Basis / Update	Control parameters	Further information
Mineral Oil Mist	TWA ACGIH	5 mg/m ³	
	STEL	10 mg/m ³	
	TWA OSHA Z2	5 mg/m ³	

Engineering measures

- Engineering measures : Use mechanical ventilation for general area control.
Ensure that extracted air cannot be returned to the workplace through the ventilation system.
Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

- Eye protection : Safety glasses with side-shields
or
Safety goggles
- Hand protection : Chemical resistant protective gloves
- Skin and body protection : Long sleeved clothing
Remove and wash contaminated clothing before re-use.
Discard contaminated shoes.
To protect against splashes from pouring:
Rubber or plastic boots
Rubber or plastic apron
- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.



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When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
The filter class for the respirator must be suitable for the maximum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If this concentration is exceeded, self-contained breathing apparatus must be used.

Hygiene measures : Handle in accordance with good industrial hygiene and safety practice.
Wear suitable gloves and eye/face protection.
Avoid contact with skin, eyes and clothing.
Do not inhale aerosol.
Ensure adequate ventilation, especially in confined areas.
When using do not eat, drink or smoke.
Wash thoroughly after handling.
Keep working clothes separately.
Remove and wash contaminated clothing before re-use.
Contaminated work clothing should not be allowed out of the workplace.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form : liquid
Colour : off-white
to
tan

Odour : slight

Safety data

Flash point : 226 °F (108 °C)
pH : 8 - 10
Boiling point/boiling range : > 212 °F (100 °C)
Specific Gravity : 1.091 at 20 °C
Water solubility : Note: completely miscible
Solubility in other solvents : Medium: Organic solvents
Note: partly soluble



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SECTION 10. STABILITY AND REACTIVITY

- Materials to avoid : Remarks: Oxidizing agents
Strong acids and strong bases
- Hazardous decomposition products : Note: Carbon oxides
nitrogen oxides (NOx)
Sulphur oxides
Hydrogen halides
- Hazardous reactions : Hazardous polymerisation does not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

- Acute oral toxicity
N-[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : LD50: 4,640 mg/kg
Species: rat
- Acute inhalation toxicity
N-[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : LC50: > 2.49 mg/l
Exposure time: 4 h
Species: rat
- Acute dermal toxicity
N-[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : LD50: > 10,000 mg/kg
Species: rat
- Skin irritation
N-[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : Species: rabbit
Result: No skin irritation
Method: OECD Test Guideline 404
Exposure time: 4 h
- Eye irritation
N-[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : Species: rabbit
Result: No eye irritation
- Sensitisation
N-[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : Buehler Test
Species: guinea pig
Classification: Did not cause sensitization on laboratory animals.



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CMR effects

N-[[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : Carcinogenicity: Animal testing did not show any carcinogenic effects.
Mutagenicity: Animal testing did not show any mutagenic effects.
Teratogenicity: No effects on or via lactation
Reproductive toxicity: No toxicity to reproduction

12. ECOLOGICAL INFORMATION

Toxicity to fish

N-[[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : LC50: > 0.13 mg/l
Exposure time: 96 h
Species: Cyprinodon sp. (minnow)
flow-through test Method: OECD Test Guideline 203

LC50: > 0.2 mg/l
Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout)

Toxicity to daphnia and other aquatic invertebrates.

N-[[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : EC50: 0.003 mg/l
Exposure time: 48 h
Species: Daphnia magna (Water flea)

Toxicity to algae

N-[[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : IC50: > 0.3 mg/l
Exposure time: 72 h

Toxicity to fish (Chronic toxicity)

N-[[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : NOEC: 0.10 mg/l
Species: Cyprinodon sp. (minnow)

Toxicity to daphnia and other aquatic invertebrates. (Chronic toxicity)

N-[[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : NOEC: < 6 mg/l
Species: Daphnia magna (Water flea)

Bioaccumulation

N-[[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide : Bioconcentration factor (BCF): > 100

Biodegradability



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N-[[4-chlorophenyl)amino]carbonyl]-2,6-difluorobenzamide
: Result: Not readily biodegradable.

Further information on ecology

SECTION 13. DISPOSAL CONSIDERATIONS

Further information : Dispose of waste material in compliance with all federal, state, and local regulations.
Pesticide wastes are toxic.
Do not contaminate ponds, waterways or ditches with chemical or used container.

SECTION 14. TRANSPORT INFORMATION

DOT

UN-Number : 3082
Description of the goods : Environmentally hazardous substances, liquid, n.o.s.
(Diflubenzuron)
Class : 9
Packing group : III
ERG Code : 171

IATA

UN-Number : 3082
Description of the goods : Environmentally hazardous substance, liquid, n.o.s.
(Diflubenzuron)
Class : 9
Packing group : III

IMDG

UN-Number : 3082
Description of the goods : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Diflubenzuron)
Class : 9
Packing group : III
EmS Letter 1 : F-A
EmS Letter 2 : S-F

Marine pollutant : yes
Diflubenzuron



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SECTION 15. REGULATORY INFORMATION

California Prop. 65 Components : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA All substances in this product are exempt from TSCA as this product is registered under FIFRA (Federal Insecticide Fungicide Rodenticide Act).

DSL This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

NZIoC On the inventory, or in compliance with the inventory

IECSC On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Further information

HMIS Classification : Health hazard: 1
Chronic Health Hazard: *
Flammability: 0
Reactivity: 0



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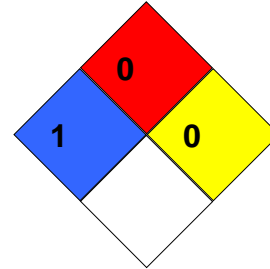
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NFPA Classification : Health hazard: 1
Fire Hazard: 0
Reactivity Hazard: 0



Other Emergency Phone Number

<u>Latin America:</u>	Brazil	+52 113 711 91 44
	All other countries	+44 (0)208 762 8322
<u>Mexico:</u>		+52 555 004 87 63

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.