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Corteva Agriscience™ encourages you and expects you to read and understand the entire SDS as there is important information throughout the document. This SDS provides users with information relating to the protection of human health and safety at the workplace, protection of the environment and supports emergency response. Product users and applicators should primarily refer to the product label attached to or accompanying the product container. This Safety Data Sheet adheres to the standards and regulatory requirements of the United States and may not meet the regulatory requirements in other countries.

SECTION 1. IDENTIFICATION

Product name : DIMENSION™ EC

Manufacturer or supplier's details

COMPANY IDENTIFICATION

Manufacturer/importer : CORTEVA AGRISCIENCE LLC

9330 ZIONSVILLE RD

INDIANAPOLIS, IN, 46268-1053

UNITED STATES

Customer Information

Number

: 800-992-5994

E-mail address : customerinformation@corteva.com

Emergency telephone : INFOTRAC (CONTRACT 84224).

800-992-5994 or 317-337-6009

Recommended use of the chemical and restrictions on use

Recommended use : End use insecticide product

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquids : Category 4

Carcinogenicity : Category 2

Specific target organ toxicity

- single exposure

Category 3 (Central nervous system)

Aspiration hazard : Category 1





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GHS label elements

Hazard pictograms





Signal Word Danger

Hazard Statements H227 Combustible liquid.

H304 May be fatal if swallowed and enters airways.

H336 May cause drowsiness or dizziness. H351 Suspected of causing cancer.

Precautionary Statements

Prevention:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P210 Keep away from heat/ sparks/ open flames/ hot surfaces.

No smoking.

P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/ protective clothing/ eye protection/

face protection.

Response:

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

P304 + P340 + P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor if you feel unwell.

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

P331 Do NOT induce vomiting.

P370 + P378 In case of fire: Use dry sand, dry chemical or alco-

hol-resistant foam to extinguish.

Storage:

P403 + P233 Store in a well-ventilated place. Keep container tightly closed.

P403 + P235 Store in a well-ventilated place. Keep cool.

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.





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SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

Chemical name	CAS-No.	Concentration (% w/w)
Dithiopyr	97886-45-8	12.7
Solvent naphtha (petroleum), heavy	64742-94-5	>= 80 - < 90
arom.; Kerosine — unspecified		
naphthalene	91-20-3	>= 0.3 - < 1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

If inhaled : Move person to fresh air. If person is not breathing, call an

emergency responder or ambulance, then give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc). Call a poison control center or doctor for treatment

advice.

If breathing is difficult, oxygen should be administered by qual-

ified personnel.

In case of 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.

In case of eye contact : Hold eyes open and rinse slowly and gently with water for 15-

20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eyes. Call a poison control

center or doctor for treatment advice.

Suitable emergency eye wash facility should be available in

work area.

If swallowed : Immediately call a poison control center or doctor. Do not

induce vomiting unless told to do so by a poison control center or doctor. Do not give any liquid to the person. Do not give

anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and

delayed

None known.

Protection of first-aiders

: First Aid responders should pay attention to self-protection

and use the recommended protective clothing (chemical re-

sistant gloves, splash protection).

If potential for exposure exists refer to Section 8 for specific

personal protective equipment.

Notes to physician : Maintain adequate ventilation and oxygenation of the patient.

If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. The decision of whether to induce vomiting or not should be

made by a physician. No specific antidote.

Treatment of exposure should be directed at the control of

symptoms and the clinical condition of the patient. Skin contact may aggravate preexisting dermatitis.

SECTION 5. FIRE-FIGHTING MEASURES





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Suitable extinguishing media Water spray

Alcohol-resistant foam

Carbon dioxide (CO2)

Unsuitable extinguishing

media

Do not use direct water stream.

High volume water jet

Specific hazards during fire

fighting

Exposure to combustion products may be a hazard to health.

Vapors may form explosive mixtures with air.

Do not allow run-off from firefighting to enter drains or water

courses.

Flash back possible over considerable distance.

Hazardous combustion prod-

ucts

During a fire, smoke may contain the original material in addi-

tion to combustion products of varying composition which may

be toxic and/or irritating.

Combustion products may include and are not limited to:

Nitrogen oxides (NOx)

Carbon oxides

Specific extinguishing meth-

ods

Remove undamaged containers from fire area if it is safe to do

Evacuate area.

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment. Use water spray to cool unopened containers.

Further information Use water spray to cool fire exposed containers and fire af-

fected zone until fire is out and danger of reignition has

passed.

Do not use a solid water stream as it may scatter and spread

Use a water spray to cool fully closed containers.

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.

Special protective equipment:

for fire-fighters

In the event of fire, wear self-contained breathing apparatus.

Use personal protective equipment.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- :

tive equipment and emergency procedures

Ensure adequate ventilation.

Use personal protective equipment.

Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions If the product contaminates rivers and lakes or drains inform

respective authorities.

Discharge into the environment must be avoided. Prevent further leakage or spillage if safe to do so.

Prevent spreading over a wide area (e.g., by containment or

oil barriers).

Retain and dispose of contaminated wash water.

Local authorities should be advised if significant spillages





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cannot be contained.

Prevent from entering into soil, ditches, sewers, underwater.

See Section 12, Ecological Information.

Methods and materials for containment and cleaning up

Clean up remaining materials from spill with suitable absorbant.

Local or national regulations may apply to releases and disposal of this material, as well as those materials and items employed in.

For large spills, provide dyking or other appropriate containment to keep material from spreading. If dyked material can

be pumped,

Recovered material should be stored in a vented container. The vent must prevent the ingress of water as further reaction with spilled materials can take place which could lead to overpressurization of the container.

Keep in suitable, closed containers for disposal. Wipe up with absorbent material (e.g. cloth, fleece).

Non-sparking tools should be used.

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local

/ national regulations (see section 13).

Suppress (knock down) gases/vapors/mists with a water spray

jet.

See Section 13, Disposal Considerations, for additional infor-

mation.

SECTION 7. HANDLING AND STORAGE

Local/Total ventilation Advice on safe handling Use with local exhaust ventilation.

: Avoid formation of aerosol.

Provide sufficient air exchange and/or exhaust in work rooms.

Do not breathe vapors/dust.

Do not smoke.

Handle in accordance with good industrial hygiene and safety

practice.

Avoid exposure - obtain special instructions before use. Smoking, eating and drinking should be prohibited in the ap-

plication area.

Do not breathe vapors or spray mist.

Do not swallow.

Avoid contact with skin and eyes.

Avoid contact with eyes.

Avoid prolonged or repeated contact with skin.

Keep container tightly closed.

Keep away from heat and sources of ignition.

Take precautionary measures against static discharges.

Take care to prevent spills, waste and minimize release to the environment.

Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Conditions for safe storage : Store in a closed container.

No smoking.





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Containers which are opened must be carefully resealed and

kept upright to prevent leakage. Keep in properly labeled containers.

Store in accordance with the particular national regulations.

Materials to avoid : Do not store near acids.

Strong oxidizing agents

Explosives Gases

Packaging material : Unsuitable material: None known.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified	64742-94-5	TWA	100 mg/m3	Corteva OEL
		STEL	300 mg/m3	Corteva OEL
		TWA	200 mg/m3 (total hydrocarbon vapor)	ACGIH
Dithiopyr	97886-45-8	TWA	0.25 mg/m3	Dow IHG
naphthalene	91-20-3	TWA	10 ppm	Dow IHG
		STEL	15 ppm	Dow IHG
		TWA	10 ppm	ACGIH
		TWA	10 ppm 50 mg/m3	OSHA Z-1

Engineering measures : Use engineering controls to maintain airborne level below

exposure limit requirements or guidelines.

If there are no applicable exposure limit requirements or

guidelines, use only with adequate ventilation.

Local exhaust ventilation may be necessary for some opera-

tions.

Personal protective equipment

Respiratory protection : Respiratory protection should be worn when there is a poten-

tial to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or

guidelines, use an approved respirator.

Selection of air-purifying or positive-pressure supplied-air will depend on the specific operation and the potential airborne

concentration of the material.

For emergency conditions, use an approved positive-

pressure self-contained breathing apparatus.

Hand protection

Remarks : Use gloves chemically resistant to this material. Examples of

preferred glove barrier materials include: Chlorinated polyethylene. Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). Styrene/butadiene rub-





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ber. Viton. Examples of acceptable glove barrier materials

include: Butyl rubber. Natural rubber ("latex"). Ni-

trile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instruc-

tions/specifications provided by the glove supplier.

Eye protection : Use safety glasses (with side shields).

If exposure causes eye discomfort, use a full-face respirator.

Skin and body protection : Use protective clothing chemically resistant to this material.

Selection of specific items such as face shield, boots, apron,

or full body suit will depend on the task.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid.

Color : Yellow to brown

Odor : Aromatic

Odor Threshold : No data available

pH : 4.1

Method: Literature

Melting point/range : Not applicable

Freezing point No data available

Boiling point/boiling range : 349 - 410 °F / 176 - 210 °C

Method: Vendor

Solvent

Flash point : $145 \,^{\circ}\text{F} / 63 \,^{\circ}\text{C}$

Method: Tag Closed Cup ASTM D56, closed cup

Evaporation rate : < 1

Method: Literature

Flammability (solid, gas) : No data available

Upper explosion limit / Upper

flammability limit

7 vol %

Method: Vendor

Solvent

Lower explosion limit / Lower

flammability limit

0.8 vol %

Method: Vendor

Solvent





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Vapor pressure : 3.999 hPa (77 °F / 25 °C)

Method: Vendor

Solvent

Relative vapor density : 4.8

Method: Vendor

Solvent

Density : 0.94 g/cm3

Solubility(ies)

Water solubility : emulsifiable

Autoignition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Explosive properties : No data available

Oxidizing properties : No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity : Not classified as a reactivity hazard.

Chemical stability : No decomposition if stored and applied as directed.

Stable under normal conditions.

Possibility of hazardous reac-

tions

Stable under recommended storage conditions.

No hazards to be specially mentioned. Vapors may form explosive mixture with air.

May form explosive dust-air mixture.

Conditions to avoid : Heat, flames and sparks.

Incompatible materials

Hazardous decomposition

products

None.

Decomposition products depend upon temperature, air supply

and the presence of other materials.

Decomposition products can include and are not limited to:

Nitrogen oxides (NOx)

Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : Remarks: As product:

Single dose oral LD50 has not been determined.

Acute inhalation toxicity : Remarks: Prolonged excessive exposure may cause adverse

effects.

Excessive exposure may cause irritation to upper respiratory

tract (nose and throat).

May cause central nervous system effects.





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Symptoms may include headache, dizziness and drowsiness,

progressing to incoordination and unconsciousness.

Remarks: As product:

The LC50 has not been determined.

Acute toxicity estimate: 41.81 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: Calculation method

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

Method: Estimated.

Remarks: Based on information for component(s):

Components:

Dithiopyr:

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

Symptoms: No deaths occurred at this concentration.

Acute inhalation toxicity : Remarks: No adverse effects are anticipated from inhalation.

Based on the available data, narcotic effects were not ob-

served.

Based on the available data, respiratory irritation was not ob-

served.

LC50 (Rat): > 5.98 mg/l Exposure time: 4 h

Test atmosphere: dust/mist

Symptoms: No deaths occurred at this concentration.

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

Symptoms: No deaths occurred at this concentration.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

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

Remarks: For similar material(s):

Acute inhalation toxicity : LC50 (Rat): > 4.688 mg/l

Exposure time: 4 h
Test atmosphere: vapor

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: For similar material(s): Maximum attainable concentration.

Acute dermal toxicity : LD50 (Rabbit): > 3,160 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Remarks: For similar material(s):





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naphthalene:

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

Lethal Dose (Humans): 5 - 15 grams

Method: Estimated.

Remarks: Excessive exposure may cause hemolysis, thereby

impairing the blood's ability to transport oxygen.

Ingestion of naphthalene by humans has caused hemolytic

anemia.

Toxicity from swallowing may be greater in humans than in

animals.

In humans, symptoms may include:

Confusion. Lethargy.

Muscle spasms or twitches.

Convulsions. Coma.

Acute inhalation toxicity : Remarks: Excessive exposure may cause irritation to upper

respiratory tract (nose and throat).

Excessive exposure may cause lung injury.

Signs and symptoms of excessive exposure may include:

Headache. Confusion. Sweating.

Nausea and/or vomiting.

LC50 (Rat): > 0.41 mg/l Exposure time: 4 h Test atmosphere: vapor

Symptoms: The LC50 value is greater than the Maximum

Attainable Concentration.

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rat): > 2,500 mg/kg

Remarks: Human case reports suggest Naphthalene may be absorbed through the skin in toxic amounts, especially in chil-

dren.

LD50 (Rabbit): > 2,500 mg/kg

Skin corrosion/irritation

Product:

Remarks : Brief contact may cause slight skin irritation with local red-

ness.

May cause drying and flaking of the skin.

Serious eye damage/eye irritation

Product:

Remarks : May cause eye irritation.

Corneal injury is unlikely.





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Vapor may cause eye irritation experienced as mild discomfort

and redness.

Respiratory or skin sensitization

Components:

Dithiopyr:

Remarks : Did not cause allergic skin reactions when tested in guinea

pigs

Remarks : For respiratory sensitization:

No relevant data found.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Remarks : For similar material(s):

Did not cause allergic skin reactions when tested in guinea

pigs.

Remarks : For respiratory sensitization:

No relevant data found.

naphthalene:

Assessment : Does not cause skin sensitization.

Remarks : Skin contact may cause an allergic skin reaction in a small

proportion of individuals.

Did not cause allergic skin reactions when tested in guinea

pigs.

Remarks : For respiratory sensitization:

No relevant data found.

Germ cell mutagenicity

Components:

Dithiopyr:

Germ cell mutagenicity -

Assessment

In vitro genetic toxicity studies were negative., Animal genetic

toxicity studies were negative.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Germ cell mutagenicity -

Assessment

For similar material(s):, In vitro genetic toxicity studies were negative., Animal genetic toxicity studies were negative.

naphthalene:

Germ cell mutagenicity -

In vitro genetic toxicity studies were negative in some cases

Assessment and positive in other cases.





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Carcinogenicity

Components:

Dithiopyr:

Carcinogenicity - Assess-

ment

Did not cause cancer in laboratory animals.

naphthalene:

Carcinogenicity - Assess-

ment

Limited evidence of carcinogenicity in animal studies

Has caused cancer in some laboratory animals., In humans, there is limited evidence of cancer in workers involved in naphthalene production. Limited oral studies in rats were neg-

ative.

IARC Group 2B: Possibly carcinogenic to humans

naphthalene 91-20-3

OSHANo component of this product present at levels greater than or equal to 0.1% is

on OSHA's list of regulated carcinogens.

NTP Reasonably anticipated to be a human carcinogen

naphthalene 91-20-3

Reproductive toxicity

Components:

Dithiopyr:

Reproductive toxicity - As-

sessment

For similar material(s):, In animal studies, did not interfere with

reproduction.

For similar material(s):, Did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in

the mother.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Reproductive toxicity - As-

sessment

: In animal studies, did not interfere with reproduction. For similar material(s):, Did not cause birth defects or any

other fetal effects in laboratory animals.

naphthalene:

Reproductive toxicity - As-

sessment

Available data are inadequate to determine effects on repro-

duction.

Did not cause birth defects in laboratory animals.

STOT-single exposure

Components:

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Routes of exposure : Inhalation

Assessment : May cause drowsiness or dizziness.





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naphthalene:

Assessment : Available data are inadequate to determine single exposure

specific target organ toxicity.

Repeated dose toxicity

Components:

Dithiopyr:

Remarks : For similar material(s):

In animals, effects have been reported on the following or-

gans: Liver. Kidney. Adrenal gland. Thyroid. Gall bladder. Blood.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Remarks : Based on available data, repeated exposures are not antici-

pated to cause significant adverse effects.

naphthalene:

Remarks : Observations in animals include:

Respiratory effects.

Excessive exposure may cause hemolysis, thereby impairing

the blood's ability to transport oxygen.

Cataracts and other eye effects have been reported in humans repeatedly exposed to naphthalene vapor or dust. Ingestion of naphthalene by humans has caused hemolytic

anemia.

Aspiration toxicity

Components:

Dithiopyr:

Based on available information, aspiration hazard could not be determined.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

May be fatal if swallowed and enters airways.

naphthalene:

Based on physical properties, not likely to be an aspiration hazard.





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SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Dithiopyr:

Toxicity to fish : Remarks: Material is very highly toxic to aquatic organisms on

an acute basis (LC50/EC50 <0.1 mg/L in the most sensitive

species).

LC50 (Oncorhynchus mykiss (rainbow trout)): 0.5 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 1.1 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202

Toxicity to algae/aquatic

plants

EC50 (Selenastrum capricornutum (green algae)): 0.020 mg/l

Exposure time: 5 d

Test Type: Static

ErC50 (Lemna gibba (gibbous duckweed)): 0.014 mg/l

Exposure time: 7 d

NOEC (Lemna gibba (gibbous duckweed)): 0.0024 mg/l

Exposure time: 7 d

M-Factor (Acute aquatic tox-

icity)

M-Factor (Chronic aquatic

toxicity)

10

10

Toxicity to soil dwelling or-

ganisms

LC50 (Eisenia fetida (earthworms)): > 1,000 mg/kg

Toxicity to terrestrial organ-

isms

Remarks: Material is practically non-toxic to birds on an acute

basis (LD50 > 2000 mg/kg)., Material is practically non-toxic to

birds on a dietary basis (LC50 > 5000 ppm).

oral LD50 (Colinus virginianus (Bobwhite quail)): > 2250

mg/kg bodyweight.

dietary LC50 (Colinus virginianus (Bobwhite quail)): > 5620

mg/kg diet.

contact LD50 (Apis mellifera (bees)): > 100 µg/bee

Exposure time: 48 h

oral LD50 (Apis mellifera (bees)): > 119 µg/bee

Exposure time: 48 h

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Toxicity to fish : Remarks: For similar material(s):

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensi-





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tive species tested).

LC50 (Oncorhynchus mykiss (rainbow trout)): 2 - 5 mg/l

Exposure time: 96 h

Remarks: For similar material(s):

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 3 - 10 mg/l

Exposure time: 48 h

Remarks: For similar material(s):

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 11 mg/l

Exposure time: 72 h

Remarks: For similar material(s):

Toxicity to terrestrial organ-

isms

Remarks: Material is practically non-toxic to birds on an acute

basis (LD50 > 2000 mg/kg).

Ecotoxicology Assessment

Chronic aquatic toxicity Toxic to aquatic life with long lasting effects.

naphthalene:

Toxicity to fish Remarks: Material is highly toxic to aquatic organisms on an

acute basis (LC50/EC50 between 0.1 and 1 mg/L in the most

sensitive species tested).

LC50 (Oncorhynchus mykiss (rainbow trout)): 0.11 mg/l

Exposure time: 96 h

Toxicity to daphnia and other

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 1.6 - 24.1 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to algae/aquatic

plants

ErC50 (Skeletonema costatum (marine diatom)): 0.4 mg/l

Exposure time: 72 h

Test Type: Growth rate inhibition

M-Factor (Acute aquatic tox-

Toxicity to fish (Chronic tox-

icity)

NOEC (Other): 0.37 mg/l

End point: mortality Exposure time: 40 d Test Type: flow-through

M-Factor (Chronic aquatic

toxicity)

1 :

Ecotoxicology Assessment

Chronic aquatic toxicity Very toxic to aquatic life with long lasting effects.

Persistence and degradability

Components:

Dithiopyr:





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Biodegradability : Result: Not readily biodegradable.

Remarks: Biodegradation may occur under aerobic conditions

(in the presence of oxygen).

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Biodegradability : Remarks: Material is inherently biodegradable (reaches >

20% biodegradation in OECD test(s) for inherent biodegrada-

bility).

naphthalene:

Biodegradability : Remarks: Biodegradation under aerobic static laboratory con-

ditions is high (BOD20 or BOD28/ThOD > 40%).

Biochemical Oxygen De-

mand (BOD)

57.000 %

Incubation time: 5 d

71.000 %

Incubation time: 10 d

71.000 %

Incubation time: 20 d

ThOD : 3.00 kg/kg

Photodegradation : Test Type: Half-life (indirect photolysis)

Sensitizer: OH radicals

Concentration: 1,500,000 1/cm3 Rate constant: 2.16E-11 cm3/s

Method: Estimated.

Bioaccumulative potential

Components:

Dithiopyr:

Partition coefficient: n-

octanol/water

log Pow: 4.75

Method: Measured

Remarks: Bioconcentration potential is moderate (BCF be-

tween 100 and 3000 or Log Pow between 3 and 5).

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Partition coefficient: n- : Re

Remarks: For similar material(s):

octanol/water

Bioconcentration potential is high (BCF > 3000 or Log Pow

between 5 and 7).

naphthalene:

Bioaccumulation : Species: Fish

Bioconcentration factor (BCF): 40 - 300

Exposure time: 28 d Method: Measured





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Partition coefficient: n-

octanol/water

log Pow: 3.3

Method: Measured

Remarks: Bioconcentration potential is moderate (BCF be-

tween 100 and 3000 or Log Pow between 3 and 5).

Mobility in soil

Components:

Dithiopyr:

Distribution among environ-

mental compartments

Koc: 20500

Remarks: Expected to be relatively immobile in soil (Koc >

5000).

Given its very low Henry's constant, volatilization from natural

bodies of water or moist soil is not expected to be an im-

portant fate process.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Distribution among environ-

mental compartments

Remarks: No relevant data found.

naphthalene:

Distribution among environ-

mental compartments

Koc: 240 - 1300

Method: Measured

Remarks: Potential for mobility in soil is medium (Koc between

150 and 500).

Other adverse effects

Components:

Dithiopyr:

Results of PBT and vPvB

assessment

This substance is not considered to be persistent, bioaccumu-

lating and toxic (PBT). This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list

of substances that deplete the ozone layer.

Solvent naphtha (petroleum), heavy arom.; Kerosine — unspecified:

Results of PBT and vPvB

assessment

: This substance is not considered to be persistent, bioaccumulating and toxic (PBT). This substance is not considered to be

very persistent and very bioaccumulating (vPvB).

Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list

of substances that deplete the ozone layer.

naphthalene:

Results of PBT and vPvB

assessment

This substance has not been assessed for persistence, bioac-

cumulation and toxicity (PBT).





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Ozone-Depletion Potential : Remarks: This substance is not on the Montreal Protocol list

of substances that deplete the ozone layer.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : If wastes and/or containers cannot be disposed of according

to the product label directions, disposal of this material must be in accordance with your local or area regulatory authorities. This information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regu-

lations

If the material as supplied becomes a waste, follow all appli-

cable regional, national and local laws.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Naphthalene, Dithiopyr)

Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3082

Proper shipping name : Environmentally hazardous substance, liquid, n.o.s.

(Naphthalene, Dithiopyr)

Class : 9 Packing group : III

Labels : Miscellaneous

Packing instruction (cargo

aircraft)

Packing instruction (passen-

ger aircraft)

964

964

IMDG-Code

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.





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(Naphthalene, Dithiopyr)

Class : 9
Packing group : III
Labels : 9

EmS Code : F-A, S-F Marine pollutant : yes

Remarks : Stowage category A

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

Not applicable for product as supplied.

Domestic regulation

49 CFR

UN/ID/NA number : NA 1993

Proper shipping name : Combustible liquid, n.o.s.

(Heavy aromatic naphtha)

Class : CBL
Packing group : III
Labels : NONE
ERG Code : 128
Marine pollutant : no

Further information

Marine Pollutants assigned UN number 3077 and 3082 in single or combination packaging containing a net quantity per single or inner packaging of 5L or less for liquids or having a net mass per single or inner packaging of 5 KG or less for solids may be transported as non-dangerous goods as provided in section 2.10.2.7 of IMDG code, IATA Special provision A197, and ADR/RID special provision 375.

Above applies only to containers over 119 gallons or 450 liters. Not regulated if shipped in packages less than or equal to 119 gallons (450 liters).

Special precautions for user

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

SECTION 15. REGULATORY INFORMATION

SARA 311/312 Hazards : Flammable (gases, aerosols, liquids, or solids)

Carcinogenicity
Aspiration hazard

Specific target organ toxicity (single or repeated exposure)

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

tablished by SARA Title III, Section 313:

naphthalene 91-20-3 >= 0.1 - < 1 %

US State Regulations

Pennsylvania Right To Know

Solvent naphtha (petroleum), heavy arom.; Kerosine — un- 64742-94-5





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specified

California Prop. 65

WARNING: This product can expose you to chemicals including naphthalene, which is/are known to the State of California to cause cancer, and

toluene, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

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

TSCA : Product contains substance(s) not listed on TSCA inventory.

TSCA list

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

Federal Insecticide, Fungicide and Rodenticide Act

EPA Registration Number : 62719-426

62719-427

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:

WARNING

Causes substantial but temporary eye injury Causes skin irritation Harmful if swallowed May cause respiratory tract irritation May cause allergic skin reaction

SECTION 16. OTHER INFORMATION

Information Source and References

This SDS is prepared by Product Regulatory Services and Hazard Communications Groups from information supplied by internal references within our company.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
Corteva OEL : Corteva Occupational Exposure Limit
Dow IHG : Dow Industrial Hygiene Guideline

OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Lim-

its for Air Contaminants

ACGIH / TWA : 8-hour, time-weighted average Corteva OEL / STEL : Short term exposure limit : Time weighted average

Dow IHG / TWA : Time Weighted Average (TWA):





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Dow IHG / STEL : Short term exposure limit

Dow IHG / TWA : Time weighted average

OSHA Z-1 / TWA : 8-hour time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System: IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization: IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI -Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ -Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB -Very Persistent and Very Bioaccumulative

Revision Date : 01/26/2022

Product code: GF-2821

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.

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