according to the OSHA Hazard Communication Standard



GARLON™ 3A

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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 : GARLON™ 3A

Manufacturer or supplier's details

COMPANY IDENTIFICATION

Manufacturer/importer CORTEVA AGRISCIENCE LLC

9330 ZIONSVILLE RD

INDIANAPOLIS, IN, 46268-1053

UNITED STATES

Customer Information

Number

: 1-800-258-3033

E-mail address : customerinformation@corteva.com

Emergency telephone : INFOTRAC (CONTRACT 84224)

+1 800-992-5994 or +1 317-337-6009

Recommended use of the chemical and restrictions on use

Recommended use : End use herbicide product

SECTION 2. HAZARDS IDENTIFICATION

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

Flammable liquids : Category 3

Eye irritation : Category 2A

Specific target organ toxicity : Category 2 (Kidney)

- repeated exposure

GHS label elements

according to the OSHA Hazard Communication Standard



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Hazard pictograms







Signal Word : Warning

Hazard Statements : H226 Flammable liquid and vapor.

H319 Causes serious eye irritation.

H373 May cause damage to organs (Kidney) through prolonged

or repeated exposure.

Precautionary Statements : Prevention:

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

No smoking.

P233 Keep container tightly closed.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ ventilating/ lighting/ equip-

ment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P260 Do not breathe mist or vapors.

P264 Wash skin thoroughly after handling.
P280 Wear protective gloves/ eye protection/ face protection.

Response:

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy

to do. Continue rinsing.

P314 Get medical advice/ attention if you feel unwell.

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

tion.

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

hol-resistant foam to extinguish.

Storage:

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

Disposal:

P501 Dispose of contents/ container to an approved waste dis-

posal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Components

according to the OSHA Hazard Communication Standard



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Chemical name	CAS-No.	Concentration (% w/w)
Triclopyr Triethylamine Salt	57213-69-1	44.4
ethanol	64-17-5	>= 1 - < 3
Balance	Not Assigned	> 50

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.

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 immediately

available.

If swallowed : Call a poison control center or doctor immediately for treat-

ment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison

control center or doctor.

Never 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 : No specific antidote.

Treatment of exposure should be directed at the control of

symptoms and the clinical condition of the patient.

Have the Safety Data Sheet, and if available, the product container or label with you when calling a poison control center or

doctor, or going for treatment.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Water spray

Alcohol-resistant foam Carbon dioxide (CO2)

according to the OSHA Hazard Communication Standard



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Dry chemical

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 fire fighting 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 addition 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) Hydrogen chloride gas

Carbon oxides

Specific extinguishing meth-

ods

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

SO.

Evacuate area.

Use extinguishing measures that are appropriate to local cir-

cumstances and the surrounding environment.

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

fire.

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, protective equipment and emergency procedures

Beware of vapors accumulating to form explosive concentra-

tions. Vapors can accumulate in low areas.

Remove all sources of ignition. 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.

according to the OSHA Hazard Communication Standard



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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

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.

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 : Use with local exhaust ventilation.

Use only in an area equipped with explosion proof exhaust

ventilation.

Advice on safe handling : Avoid formation of aerosol.

Non-sparking tools should be used.

Provide sufficient air exchange and/or exhaust in work rooms. Open drum carefully as content may be under pressure. Handle in accordance with good industrial hygiene and safety

practice.

Smoking, eating and drinking should be prohibited in the ap-

plication area.

Avoid inhalation of vapor or mist.

Do not swallow.

Avoid contact with skin and eyes. 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

according to the OSHA Hazard Communication Standard



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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 smokina.

Containers which are opened must be carefully resealed and

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

Keep tightly closed.

Store in accordance with the particular national regulations.

Materials to avoid Strong oxidizing agents

> Organic peroxides Flammable solids Pyrophoric liquids

Self-heating substances and mixtures

Substances and mixtures which in contact with water emit

flammable gases

Explosives Gases

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Triclopyr Triethylamine Salt	57213-69-1	TWA	2 mg/m3	Dow IHG
ethanol	64-17-5	STEL	1,000 ppm	ACGIH
		TWA	1,000 ppm 1,900 mg/m3	OSHA Z-1
		TWA	1,000 ppm 1,900 mg/m3	OSHA P0
triethylamine	121-44-8	TWA	1 ppm	Dow IHG
		STEL	3 ppm	Dow IHG
		TWA	0.5 ppm	ACGIH
		STEL	1 ppm	ACGIH
		TWA	25 ppm 100 mg/m3	OSHA Z-1
		TWA	10 ppm 40 mg/m3	OSHA P0
		STEL	15 ppm 60 mg/m3	OSHA P0

Engineering measures

Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient

for most operations.

Local exhaust ventilation may be necessary for some opera-

tions.

according to the OSHA Hazard Communication Standard



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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, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. For most conditions no respiratory protection should be needed; however, if discomfort is experienced, use an ap-

proved air-purifying respirator.

Hand protection

Remarks : Use gloves chemically resistant to this material when pro-

longed or frequently repeated contact could occur. Examples of preferred glove barrier materials include: Butyl rubber. Natural rubber ("latex"). Neoprene. Nitrile/butadiene rubber ("nitrile" or "NBR"). Polyethylene. Ethyl vinyl alcohol laminate ("EVAL"). Polyvinyl chloride ("PVC" or "vinyl"). 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 chemical goggles.

Skin and body protection : Wear clean, body-covering clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : Liquid.

Color : Pink to purple

Odor : Ammoniacal

Odor Threshold : No data available

pH : 9.54 (69.4 °F / 20.8 °C)

Concentration: 10 % Method: pH Electrode

Melting point/range : Not applicable to liquids

according to the OSHA Hazard Communication Standard



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Freezing point No data available

Boiling point/boiling range : No data available

Flash point : 109 °F / 43 °C

Method: Setaflash Closed Cup ASTM D3828, closed cup

Evaporation rate : No data available

Flammability (liquids) : Not expected to be a static-accumulating flammable liquid.

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower :

flammability limit

No data available

Vapor pressure : No data available

Relative vapor density : No data available

Density : 1.1385 g/cm3 (68 °F / 20 °C)

Method: Digital density meter

Solubility(ies)

Water solubility : Soluble

Autoignition temperature : No data available

Viscosity

Viscosity, dynamic : 12.5 mPa.s (77 °F / 25 °C)

Explosive properties : No

Method: Thermal

GLP: yes

Oxidizing properties : No significant increase (>5C) in temperature.

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.

according to the OSHA Hazard Communication Standard



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Conditions to avoid : Heat, flames and sparks.

Incompatible materials : Acids

Oxidizing agents

Hazardous decomposition

products

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) Hydrogen chloride gas

Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, female): 4,100 mg/kg

Method: OECD Test Guideline 425

Acute inhalation toxicity : LC50 (Rat, male and female): > 5.4 mg/l

Exposure time: 4 h Test atmosphere: Mist

Method: OECD Test Guideline 403

Symptoms: No deaths occurred at this concentration. Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Maximum attainable concentration.

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

Method: OECD Test Guideline 402

Components:

Triclopyr Triethylamine Salt:

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

Acute inhalation toxicity : LC50 (Rat): > 2.6 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Symptoms: No deaths occurred at this concentration. Assessment: The substance or mixture has no acute inhala-

tion toxicity

Remarks: Maximum achievable concentration.

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

Assessment: The substance or mixture has no acute dermal

toxicity

ethanol:

Acute oral toxicity : LD50 (Rat): > 7,000 mg/kg

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LDLo (human): 1,400 mg/kg

Acute inhalation toxicity : LC50 (Rat): 124.7 mg/l

Exposure time: 4 h
Test atmosphere: vapor

Acute dermal toxicity : LD50 (Rabbit): > 15,800 mg/kg

Skin corrosion/irritation

Product:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Components:

ethanol:

Species : Rabbit

Result : No skin irritation

Serious eye damage/eye irritation

Product:

Species : Rabbit
Result : Eye irritation

Method : OECD Test Guideline 405

Components:

Triclopyr Triethylamine Salt:

Result : Eye irritation

ethanol:

Species : Rabbit Result : Eye irritation

Respiratory or skin sensitization

Product:

Test Type : Local lymph node assay

Species : Mouse

Assessment : Does not cause skin sensitization.

Method : OECD Test Guideline 429

Components:

Triclopyr Triethylamine Salt:

Remarks : Did not demonstrate the potential for contact allergy in mice.

according to the OSHA Hazard Communication Standard



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Remarks : For respiratory sensitization:

No relevant data found.

ethanol:

Species : Guinea pig

Assessment : Does not cause skin sensitization.

Germ cell mutagenicity

Components:

Triclopyr Triethylamine Salt:

Germ cell mutagenicity -

Assessment

In vitro genetic toxicity studies were negative.

ethanol:

Germ cell mutagenicity -

Assessment

Animal testing did not show any mutagenic effects.

Carcinogenicity

Components:

Triclopyr Triethylamine Salt: Carcinogenicity - Assess-

ment

For similar active ingredient(s)., Triclopyr., Did not cause can-

cer in laboratory animals.

ethanol:

Carcinogenicity - Assess-

ment

Animal testing did not show any carcinogenic effects., Ethanol when not consumed in an alcoholic beverage is not classifia-

ble as a human carcinogen., Epidemiology studies provide evidence that drinking of alcoholic beverages (containing ethanol) is associated with cancer, and IARC has classified alco-

holic beverages as carcinogenic to humans.

IARC Group 1: Carcinogenic to humans

ethanol 64-17-5

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

on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1% is

identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity

Components:

Triclopyr Triethylamine Salt:

Reproductive toxicity - As- : For similar active ingredient(s)., Triclopyr., In laboratory ani-

according to the OSHA Hazard Communication Standard



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sessment mal studies, effects on reproduction have been seen only at

doses that produced significant toxicity to the parent animals. Has been toxic to the fetus in laboratory animals at doses toxic to the mother., Did not cause birth defects in laboratory

animals.

ethanol:

Reproductive toxicity - As-

sessment

Animal testing did not show any effects on fertility.

Has caused birth defects in lab animals at high doses.

STOT-single exposure

Product:

Assessment : Evaluation of available data suggests that this material is not

an STOT-SE toxicant.

Components:

Triclopyr Triethylamine Salt:

Assessment : Evaluation of available data suggests that this material is not

an STOT-SE toxicant.

ethanol:

Assessment : Evaluation of available data suggests that this material is not

an STOT-SE toxicant.

STOT-repeated exposure

Product:

Target Organs : Kidney

Assessment : May cause damage to organs through prolonged or repeated

exposure.

Components:

Triclopyr Triethylamine Salt:

Target Organs : Kidney

Assessment : May cause damage to organs through prolonged or repeated

exposure.

Repeated dose toxicity

Components:

Triclopyr Triethylamine Salt:

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

gans: Kidney.

according to the OSHA Hazard Communication Standard



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Aspiration toxicity

Product:

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

Components:

Triclopyr Triethylamine Salt:

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

ethanol:

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

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Product:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 400 mg/l

Exposure time: 96 h

Method: OECD Test Guideline 203 or Equivalent

LC50 (Lepomis macrochirus (Bluegill sunfish)): > 100 mg/l

Exposure time: 96 h Test Type: semi-static test

Method: OECD Test Guideline 203

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (eastern oyster (Crassostrea virginica)): 56 - 87 mg/l

Exposure time: 48 h Test Type: static test

Method: Method Not Specified.

LC50 (Daphnia magna (Water flea)): > 1,000 mg/l

Exposure time: 48 h Test Type: static test

Method: OECD Test Guideline 202 or Equivalent

Toxicity to algae/aquatic

plants

Remarks: Based on information for a similar material:

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).

ErC50 (Pseudokirchneriella subcapitata (green algae)): 107

mg/l

End point: Growth rate inhibition

Exposure time: 72 h

Method: OECD Test Guideline 201 or Equivalent

ErC50 (blue-green alga Anabaena flos-aquae): > 100 mg/l

End point: Growth inhibition

according to the OSHA Hazard Communication Standard



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Exposure time: 72 h

EC50 (Lemna gibba): > 100 mg/l End point: Growth inhibition

Exposure time: 7 d

ErC50 (Myriophyllum spicatum): 0.241 mg/l

Exposure time: 14 d

Remarks: Based on information for a similar material:

NOEC (Myriophyllum spicatum): 0.0191 mg/l

Exposure time: 14 d

Remarks: Based on information for a similar material:

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

Components:

Triclopyr Triethylamine Salt:

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

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 (Cyprinus carpio (Carp)): 350 mg/l

Exposure time: 96 h

LC50 (Lepomis macrochirus (Bluegill sunfish)): > 100 mg/l

Exposure time: 96 h Test Type: semi-static test

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (eastern oyster (Crassostrea virginica)): 56 - 87 mg/l

Exposure time: 48 h Test Type: static test

EC50 (Daphnia magna (Water flea)): > 448 mg/l

Exposure time: 48 h Test Type: static test

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): 107

mg/l

End point: Growth rate inhibition

Exposure time: 72 h

ErC50 (blue-green alga Anabaena flos-aquae): > 100 mg/l

Exposure time: 72 h

Test Type: Growth inhibition

EC50 (Lemna gibba): > 1,000 mg/l

Exposure time: 7 d

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Test Type: Growth inhibition

ErC50 (Myriophyllum spicatum): 0.241 mg/l

Exposure time: 14 d

Remarks: For similar material(s):

NOEC (Myriophyllum spicatum): 0.0191 mg/l

Exposure time: 14 d

Remarks: For similar material(s):

Toxicity to terrestrial organ-

isms

Remarks: Material is practically non-toxic to birds on a dietary basis (LC50 > 5000 ppm)., Material is moderately toxic to

basis (LC30 > 3000 ppm)., Material is moderately toxic to birds on an acute basis (LD50 between 51 and 500 mg/kg).

oral LD50 (Colinus virginianus (Bobwhite quail)): 300 mg/kg

bodyweight.

dietary LC50 (Colinus virginianus (Bobwhite quail)): 11622

mg/kg diet.

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

Exposure time: 48 h

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.

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

ethanol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 11,200 - 13,000

mg/l

Exposure time: 96 h

Test Type: flow-through test Method: Method Not Specified.

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 5,414 mg/l

Exposure time: 48 h

Method: OECD Test Guideline 202 or Equivalent

Toxicity to algae/aquatic

plants

EbC50 (Skeletonema costatum (marine diatom)): 10,943 -

11,619 mg/l

End point: Biomass Exposure time: 5 d

Method: OECD Test Guideline 201 or Equivalent

Toxicity to microorganisms : EC50 (activated sludge): > 1,000 mg/l

Persistence and degradability

Components:

Triclopyr Triethylamine Salt:

according to the OSHA Hazard Communication Standard



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Biodegradability : Remarks: For similar active ingredient(s).

Triclopyr.

Biodegradation under aerobic static laboratory conditions is

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

Remarks: For similar active ingredient(s).

Triclopyr.

Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biode-

gradable under environmental conditions.

ethanol:

Biodegradability : Result: Readily biodegradable.

Biodegradation: > 70 % Exposure time: 5 d

Method: OECD Test Guideline 301D or Equivalent

Remarks: 10-day Window: Pass

ThOD : 2.08 kg/kg

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

Sensitizer: OH radicals

Rate constant: 3.58E-12 cm3/s

Method: Estimated.

Bioaccumulative potential

Components:

Triclopyr Triethylamine Salt:

Partition coefficient: n-

octanol/water

Remarks: For similar active ingredient(s).

Bioconcentration potential is low (BCF < 100 or Log Pow < 3).

ethanol:

Partition coefficient: n-

octanol/water

log Pow: -0.31

Method: Measured

Remarks: Bioconcentration potential is low (BCF < 100 or Log

Pow < 3).

Balance:

Partition coefficient: n-

octanol/water

Remarks: No relevant data found.

Mobility in soil

Components:

Triclopyr Triethylamine Salt:

Distribution among environ-

mental compartments

Remarks: For similar active ingredient(s).

Potential for mobility in soil is very high (Koc between 0 and

according to the OSHA Hazard Communication Standard



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50).

ethanol:

Distribution among environ-

mental compartments

Koc: 1.0

Method: Estimated.

Remarks: Potential for mobility in soil is very high (Koc be-

tween 0 and 50).

Balance:

Distribution among environ-

mental compartments

Remarks: No relevant data found.

Other adverse effects

Components:

Triclopyr Triethylamine Salt:

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.

ethanol:

Results of PBT and vPvB

assessment

: This substance is not considered to be persistent, bioaccumu-

lating and toxic (PBT).

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

of substances that deplete the ozone layer.

Balance:

Results of PBT and vPvB

assessment

: This substance has not been assessed for persistence, bioac-

cumulation and toxicity (PBT).

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

according to the OSHA Hazard Communication Standard



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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 1993

Proper shipping name : FLAMMABLE LIQUID, N.O.S.

(Triclopyr Triethylamine Salt, Ethanol)

Class : 3
Packing group : III
Labels : 3
Environmentally hazardous : yes

IATA-DGR

UN/ID No. : UN 1993

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

(Triclopyr Triethylamine Salt, Ethanol)

Class : 3 Packing group : III

Labels : Flammable Liquids

Packing instruction (cargo

aircraft)

Packing instruction (passen-

ger aircraft)

355

366

IMDG-Code

UN number : UN 1993

Proper shipping name : FLAMMABLE LIQUID, N.O.S.

(Triclopyr Triethylamine Salt, Ethanol)

Class : 3
Packing group : III
Labels : 3
EmS Code : F-E, S-E

Marine pollutant : yes(Triclopyr Triethylamine Salt)

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 Road

UN/ID/NA number : UN 1993

Proper shipping name : Flammable liquids, n.o.s.

(Triclopyr Triethylamine Salt, Ethanol)

Class : 3 Packing group : III

Labels : FLAMMABLE LIQUID

ERG Code : 128

according to the OSHA Hazard Communication Standard



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Marine pollutant : no

Further information

For US Domestic transport, according to 49 CFR 173.150 f (1), A flammable liquid with a flash point at or above 38 °C (100 °F) that does not meet the definition of any other hazard class may be reclassed as a combustible liquid. This provision does not apply to transportation by vessel or aircraft, except where other means of transportation is impracticable., According to 49 CFR 173.150 (f) 2 this product is only classified in containers over 119 gallons or 450 liters. Not regulated if shipped in packages less than or equal to 119 gallons (450 liters). If transporting by vessel or aircraftunless other means of transportation is impracticable, the product must be shipped as a flammable liquid.

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)

Specific target organ toxicity (single or repeated exposure)

Serious eye damage or eye irritation

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

tablished by SARA Title III, Section 313:

Triclopyr Tri- 57213-69-1 >= 30 - < 50 %

ethylamine Salt

US State Regulations

Pennsylvania Right To Know

ethanol 64-17-5

California Prop. 65

WARNING: This product can expose you to chemicals including ethanol, ethylene oxide, propylene oxide, which is/are known to the State of California to cause cancer, and ethanol, ethylene oxide, 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 : 62719-037

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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:

DANGER

Corrosive

Causes irreversible eye damage

Harmful if swallowed or absorbed through the skin.

Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals.

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 / TWA

ACGIH : USA. ACGIH Threshold Limit Values (TLV)

Dow IHG : Dow Industrial Hygiene Guideline

OSHA P0 : USA. Table Z-1-A Limits for Air Contaminants (1989 vacated

values)

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

8-hour, time-weighted average

its for Air Contaminants

ACGIH / STEL : Short-term exposure limit

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

Dow IHG / STEL : Short term exposure limit

Dow IHG / TWA : Time weighted average

OSHA PO / TWA : 8-hour time weighted average

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

ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; ASTM - American Society for the Testing of Materials; ECx - Concentration associated with x% response; EmS - Emergency Schedule; ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; 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; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; 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; n.o.s. - not otherwise specified; NOEC - Non-Observed Effective Concentration; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; (Q)SAR - (Quantitative) Structure Activity Relationship; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SDS - Safety Data Sheet; UN - United Nations. CFR - Code of Federal Regulations. IARC - International Agency for Research

according to the OSHA Hazard Communication Standard



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on Cancer. IATA-DGR - International Air Transport Association Dangerous Goods Regulations. OSHA - Occupational Safety and Health Administration. RCRA - Resource Conservation and Recovery Act. RQ - Reportable Quantity. SARA - Superfund Amendments and Reauthorization Act. TSCA - Toxic Substances Control Act.

Revision Date : 07/16/2024

Product code: XRM-3724

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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