

ENDIGO ZCX

Version Revision Date: 1.0 11/22/2019

SDS Number: S00000106388

This version replaces all previous versions.

SECTION 1. IDENTIFICATION

Product name : ENDIGO ZCX

Design code. : A18481A

Product Registration number : 100-1458

Manufacturer or supplier's details

Company name of supplier : Syngenta Crop Protection, LLC

Address : Post Office Box 18300

Greensboro NC 27419

United States of America (USA)

Telephone : 1 800 334 9481

Telefax : 1 336 632 2192

Emergency telephone : 1 800 888 8372

Recommended use of the chemical and restrictions on use

Recommended use : Insecticide

Restrictions on use : Restricted Use Pesticide

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with 29 CFR 1910.1200

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Skin irritation : Category 2

Skin sensitization : Category 1

Carcinogenicity : Category 1A

GHS label elements

Hazard pictograms :





Signal Word : Danger

Hazard Statements : H302 + H332 Harmful if swallowed or if inhaled.



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H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H350 May cause cancer.

Precautionary Statements

Prevention:

P201 Obtain special instructions before use.

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

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

P264 Wash skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

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

P272 Contaminated work clothing must not be allowed out of the workplace.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON

CENTER/doctor if you feel unwell. Rinse mouth.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water. 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.

allenilon.

P333 + P313 If skin irritation or rash occurs: Get medical advice/attention.

P362 Take off contaminated clothing and wash before reuse.

Storage:

P405 Store locked up.

Disposal:

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

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Components

| Chemical name | CAS-No. | Concentration (% w/w) |
|-------------------------------------|-------------|-----------------------|
| thiamethoxam | 153719-23-4 | 19.17 |
| lambda-cyhalothrin | 91465-08-6 | 9.59 |
| solvent naphtha (petroleum), highly | 64742-94-5 | >= 5 - < 10 |
| arom. | | |
| propane-1,2-diol | 57-55-6 | >= 5 - < 10 |
| 2-methyl-naphthalene | 91-57-6 | >= 1 - < 5 |
| 1-methyl-naphthalene | 90-12-0 | >= 1 - < 5 |
| titanium dioxide | 13463-67-7 | >= 1 - < 5 |
| sulfuric acid | 7664-93-9 | >= 0.1 - < 1 |



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1,2-benzisothiazol-3(2H)-one | 2634-33-5 | >= 0.05 - < 0.1

Actual concentration is withheld as a trade secret

SECTION 4. FIRST AID MEASURES

General advice : Have the product container, label or Safety Data Sheet with

you when calling the emergency number, a poison control

center or physician, or going for treatment.

If inhaled : Take the victim into fresh air.

If breathing is irregular or stopped, administer artificial

respiration.

Keep patient warm and at rest.

Call a physician or poison control center immediately.

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

Wash off immediately with plenty of water. If skin irritation persists, call a physician. Wash contaminated clothing before re-use.

In case of eye contact : Rinse immediately with plenty of water, also under the eyelids,

for at least 15 minutes. Remove contact lenses.

Immediate medical attention is required.

If swallowed : If swallowed, seek medical advice immediately and show this

container or label.

Do NOT induce vomiting.

Most important symptoms and effects, both acute and

delayed

Skin contact paresthesia effects (itching, tingling, burning or

numbness) are transient, lasting up to 24 hours.

Notes to physician : There is no specific antidote available.

Treat symptomatically.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : Extinguishing media - small fires

Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide.

Extinguishing media - large fires

Alcohol-resistant foam

or

Water spray

Unsuitable extinguishing

media

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

fire.

Specific hazards during fire

fighting

: As the product contains combustible organic ingredients, fire

will produce dense black smoke containing hazardous

products of combustion (see section 10).

Exposure to decomposition products may be a hazard to

health.



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

courses.

Cool closed containers exposed to fire with water spray.

Special protective equipment:

for fire-fighters

Wear full protective clothing and self-contained breathing

apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec- :

tive equipment and emer-

gency procedures

Refer to protective measures listed in sections 7 and 8.

Prevent further leakage or spillage if safe to do so. **Environmental precautions**

> Do not flush into surface water or sanitary sewer system. If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for

containment and cleaning up

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). Clean contaminated surface thoroughly. Clean with detergents. Avoid solvents.

Retain and dispose of contaminated wash water.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling Hydrogen cyanide gas may be released during opening and

dispensing.

Avoid breathing air from container headspace.

When using do not eat, drink or smoke. For personal protection see section 8.

No special storage conditions required. Conditions for safe storage

Keep containers tightly closed in a dry, cool and well-

ventilated place.

Keep out of the reach of children.

Keep away from food, drink and animal feedingstuffs.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|---|-------------|-------------------------------------|--|----------|
| thiamethoxam | 153719-23-4 | TWA | 3 mg/m3 | Syngenta |
| lambda-cyhalothrin | 91465-08-6 | TWA | 0.04 mg/m3 (Skin) | Syngenta |
| solvent naphtha (petroleum), highly arom. | 64742-94-5 | TWA | 8 ppm 50 mg/m3 | Supplier |
| | | TWA | 200 mg/m3 | ACGIH |



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| | | | (total hydrocarbon vapor) | |
|----------------------|------------|------------------------------|--------------------------------|-----------|
| propane-1,2-diol | 57-55-6 | TWA | 10 mg/m3 | US WEEL |
| 2-methyl-naphthalene | 91-57-6 | TWA | 0.5 ppm | ACGIH |
| 1-methyl-naphthalene | 90-12-0 | TWA | 0.5 ppm | ACGIH |
| titanium dioxide | 13463-67-7 | TWA (total dust) | 15 mg/m3 | OSHA Z-1 |
| | | TWA | 10 mg/m3 (Titanium dioxide) | ACGIH |
| sulfuric acid | 7664-93-9 | TWA (Tho- racic fraction) | 0.2 mg/m3 | ACGIH |
| | | TWA | 1 mg/m3 | NIOSH REL |
| | | TWA | 1 mg/m3 | OSHA Z-1 |

Occupational exposure limits of decomposition products

| Components | CAS-No. | Value type (Form of exposure) | Control parameters / Permissible concentration | Basis |
|------------------|---------|-------------------------------------|--|-----------|
| hydrogen cyanide | 74-90-8 | С | 4.7 ppm (Cyanide) | ACGIH |
| | | ST | 4.7 ppm 5 mg/m3 | NIOSH REL |
| | | TWA | 10 ppm 11 mg/m3 | OSHA Z-1 |

Engineering measures

THE FOLLOWING RECOMMENDATIONS FOR EXPOSURE CONTROLS/PERSONAL PROTECTION ARE INTENDED FOR THE MANUFACTURE, FORMULATION AND PACKAGING OF THE PRODUCT. FOR COMMERCIAL APPLICATIONS AND/OR ON-FARM APPLICATIONS CONSULT THE PRODUCT LABEL.

Containment and/or segregation is the most reliable technical protection measure if exposure cannot be eliminated. The extent of these protection measures depends on the

actual risks in use.

Maintain air concentrations below occupational exposure standards.

Where necessary, seek additional occupational hygiene advice.

Personal protective equipment

Respiratory protection

Where concentrations are above recommended limits or are unknown, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respirator if there is any potential for uncontrolled release, exposure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.



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Hand protection

Remarks : Wear protective gloves. The choice of an appropriate glove

does not only depend on its material but also on other quality features and is different from one producer to the other. Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. Also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion, and the contact time. The break through time depends amongst other things from the material, the thickness and the type of glove and therefore has to be measured for each case. Gloves should be discarded and replaced if there is any indication of

degradation or chemical breakthrough.

Eye protection : No special protective equipment required.

Skin and body protection : Choose body protection in relation to its type, to the

concentration and amount of dangerous substances, and to

the specific work-place.

Remove and wash contaminated clothing before re-use.

Wear as appropriate: Impervious clothing

Protective measures : The use of technical measures should always have priority

over the use of personal protective equipment.

When selecting personal protective equipment, seek

appropriate professional advice.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : liquid

Color : off-white

Odor : No data available

Odor Threshold : No data available

pH : 5.5

Concentration: 100 % w/v

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : Method: Pensky-Martens closed cup

does not flash

Evaporation rate : No data available



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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

Relative density : No data available

Density : 1.1293 g/cm3

Solubility(ies)

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature : 878 °F / 470 °C

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : No data available

Explosive properties : Not explosive

Oxidizing properties : The substance or mixture is not classified as oxidizing.

SECTION 10. STABILITY AND REACTIVITY

Reactivity : None reasonably foreseeable.

Chemical stability : Hydrogen cyanide gas may develop in the headspace of containers at

normal storage temperatures.

Possibility of hazardous reac-

tions

No dangerous reaction known under conditions of normal use.

Conditions to avoid : None known.

Incompatible materials : None known.

Hazardous decomposition

products

hydrogen cyanide

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Ingestion Inhalation



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Skin contact Eye contact

Acute toxicity

Product:

Acute oral toxicity : LD50 (Rat, female): estimated 310.2 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 2.51 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance/mixture is not toxic on inhalation

as defined by dangerous goods regulations.

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

Components:

thiamethoxam:

Acute oral toxicity : LD50 (Rat, male and female): 1,563 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 3.72 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rat, male and female): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

lambda-cyhalothrin:

Acute oral toxicity : LD50 (Rat, female): 56 mg/kg

LD50 (Rat, male): 79 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): 0.06 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Acute dermal toxicity : LD50 (Rat, female): 696 mg/kg

LD50 (Rat, male): 632 mg/kg

2-methyl-naphthalene:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after

single ingestion.

1-methyl-naphthalene:

Acute oral toxicity : Assessment: The component/mixture is moderately toxic after

single ingestion.

1,2-benzisothiazol-3(2H)-one:



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Acute oral toxicity : LD50 (Rat): 1,020 mg/kg

Skin corrosion/irritation

Product:

Species : Rabbit Result : Skin irritation

Components:

thiamethoxam:

Species : Rabbit

Result : No skin irritation

lambda-cyhalothrin:

Species : Rabbit

Result : No skin irritation

Remarks : May cause temporary itching, tingling, burning or numbness of

exposed skin, called paresthesia.

sulfuric acid:

Result : Corrosive after 3 minutes or less of exposure

1,2-benzisothiazol-3(2H)-one:

Result : Irritating to skin.

Serious eye damage/eye irritation

Product:

Species : Rabbit

Result : No eye irritation

Components:

thiamethoxam:

Species : Rabbit

Result : No eye irritation

lambda-cyhalothrin:

Species : Rabbit

Result : No eye irritation

1,2-benzisothiazol-3(2H)-one:

Result : Risk of serious damage to eyes.

Respiratory or skin sensitization

Product:

Species : Guinea pig



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Method : Buehler Test

Result : Not a skin sensitizer.

Result : May cause sensitization by skin contact. Remarks : Experience with human exposure

Components:

thiamethoxam:

Species : Guinea pig

Result : Does not cause skin sensitization.

lambda-cyhalothrin:

Test Type : Maximization Test

Species : Guinea pig

Result : Does not cause skin sensitization.

Test Type : Local lymph node assay (LLNA)

Species : Mouse

Result : Does not cause skin sensitization.

1,2-benzisothiazol-3(2H)-one:

Result : Probability or evidence of skin sensitization in humans

Germ cell mutagenicity

Components:

thiamethoxam:

Germ cell mutagenicity -

Assessment

: Animal testing did not show any mutagenic effects.

lambda-cyhalothrin:

Germ cell mutagenicity -

Assessment

Animal testing did not show any mutagenic effects.

Carcinogenicity

Components:

thiamethoxam:

Carcinogenicity - Assess-

ment

Liver tumors noted in mice that are not relevant to humans.

lambda-cyhalothrin:

Carcinogenicity - Assess-

ment

Weight of evidence does not support classification as a car-

cinogen



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Reproductive toxicity

Components:

thiamethoxam:

Reproductive toxicity - As-

sessment

No toxicity to reproduction

lambda-cyhalothrin:

Reproductive toxicity - As-

sessment

Weight of evidence does not support classification for

reproductive toxicity

STOT-single exposure

Components:

lambda-cyhalothrin:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, single exposure.

STOT-repeated exposure

Components:

lambda-cyhalothrin:

Assessment : The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Repeated dose toxicity

Components:

thiamethoxam:

Remarks : Did not show neurotoxicity in animal experiments.

Aspiration toxicity

Components:

solvent naphtha (petroleum), highly arom.:

May be fatal if swallowed and enters airways.

1-methyl-naphthalene:

May be fatal if swallowed and enters airways.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

thiamethoxam:



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Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): > 100 mg/l

Exposure time: 48 h

EC50 (Cloeon sp.): 0.014 mg/l

Exposure time: 48 h

EC50 (Chironomus riparius (harlequin fly)): 0.035 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 81.8

ma/l

Exposure time: 72 h

NOEC (Pseudokirchneriella subcapitata (green algae)): 81.8

mg/l

End point: Growth rate Exposure time: 72 h

M-Factor (Acute aquatic tox-

icity)

10

Toxicity to fish (Chronic tox-

icity)

NOEC (Oncorhynchus mykiss (rainbow trout)): > 100 mg/l

Exposure time: 28 d

Test Type: flow-through test

NOEC (Oncorhynchus mykiss (rainbow trout)): > 20 mg/l

Exposure time: 88 d Test Type: Early-life Stage

Toxicity to daphnia and other aquatic invertebrates (Chron-

aqualic invertebr

ic toxicity)

NOEC (Daphnia magna (Water flea)): 100 mg/l

Exposure time: 21 d

NOEC (Chironomus riparius (Midge larvae)): 0.01 mg/l

Exposure time: 30 d

M-Factor (Chronic aquatic

toxicity)

10

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l

Exposure time: 3 h

lambda-cyhalothrin:

Toxicity to fish : LC50 (Leuciscus idus (Golden orfe)): 0.000078 mg/l

Exposure time: 96 h

LC50 (Ictalurus punctatus (channel catfish)): 0.00016 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.00036 mg/l

Exposure time: 48 h



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LC50 (Americamysis): 0.000007 mg/l

Exposure time: 48 h

EC50 (Hyalella azteca (Amphipod)): 0.000002 mg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

ErC50 (Pseudokirchneriella subcapitata (green algae)): > 0.31

mg/l

Exposure time: 96 h

M-Factor (Acute aquatic tox-

icity)

100,000

Toxicity to fish (Chronic tox-

icity)

NOEC (Pimephales promelas (fathead minnow)): 0.000031

mg/

Exposure time: 300 d

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.000002 mg/l

Exposure time: 21 d

NOEC (Americamysis): 0.00022 µg/l

Exposure time: 28 d

M-Factor (Chronic aquatic

toxicity)

100,000

Toxicity to microorganisms : EC50 (activated sludge): > 100 mg/l

Exposure time: 3 h

solvent naphtha (petroleum), highly arom.:

Ecotoxicology Assessment

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

titanium dioxide:

Toxicity to algae/aquatic

plants

EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l

Exposure time: 72 h

Ecotoxicology Assessment

Acute aquatic toxicity : This product has no known ecotoxicological effects.

Chronic aquatic toxicity : This product has no known ecotoxicological effects.

1,2-benzisothiazol-3(2H)-one:

Ecotoxicology Assessment

Acute aquatic toxicity : Very toxic to aquatic life.



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Persistence and degradability

Components:

thiamethoxam:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life: 11 d

Remarks: Product is not persistent.

lambda-cyhalothrin:

Biodegradability : Result: Not readily biodegradable.

Stability in water : Degradation half life (DT50): 7 d

Remarks: Product is not persistent.

Bioaccumulative potential

Components:

thiamethoxam:

Bioaccumulation : Remarks: Low bioaccumulation potential.

Partition coefficient: n-

octanol/water

log Pow: -0.13 (77 °F / 25 °C)

lambda-cyhalothrin:

Bioaccumulation : Remarks: Bioaccumulates

Mobility in soil

Components:

thiamethoxam:

Distribution among environ-

mental compartments

Remarks: Moderately mobile in soils

Stability in soil : Dissipation time: 51 d

Percentage dissipation: 50 % (DT50) Remarks: Product is not persistent.

lambda-cyhalothrin:

Distribution among environ-

mental compartments

Remarks: immobile

Stability in soil : Dissipation time: 56 d

Percentage dissipation: 50 % (DT50) Remarks: Product is not persistent.



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Other adverse effects

Components:

lambda-cyhalothrin:

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).

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Do not contaminate ponds, waterways or ditches with

chemical or used container.

Do not dispose of waste into sewer.

Where possible recycling is preferred to disposal or

incineration.

If recycling is not practicable, dispose of in compliance with

local regulations.

Contaminated packaging : Empty remaining contents.

Triple rinse containers.

Empty containers should be taken to an approved waste

handling site for recycling or disposal. Do not re-use empty containers.

SECTION 14. TRANSPORT INFORMATION

International Regulations

UNRTDG

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(LAMBDA-CYHALOTHRIN AND THIAMETHOXAM)

Class : 9
Packing group : III
Labels : 9

IATA-DGR

UN/ID No. : UN 3082

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

(LAMBDA-CYHALOTHRIN AND THIAMETHOXAM)

Class : 9 Packing group : III

Labels : Class 9 - Miscellaneous dangerous substances and articles

Packing instruction (cargo

aircraft)

: 964

964

Packing instruction (passen-

ger aircraft)

904

Environmentally hazardous : yes

IMDG-Code

UN number : UN 3082

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Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S

(LAMBDA-CYHALOTHRIN AND THIAMETHOXAM)

Class : 9
Packing group : III
Labels : 9
EmS Code : F-A, S-F
Marine pollutant : yes

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

Not regulated as a dangerous good

Remarks : Shipment by ground under DOT is non-regulated; however it

may be shipped per the applicable hazard classification to facilitate multi-modal transport involving ICAO (IATA) or IMO.

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

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

May be fatal if swallowed.

Causes moderate eve irritation.

Do not get in eyes, on skin, or on clothing.

Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet.

EPCRA - Emergency Planning and Community Right-to-Know

CERCLA Reportable Quantity

| Components | CAS-No. | Component RQ | Calculated product RQ | |
|---------------|-----------|--------------|-----------------------|--|
| | | (lbs) | (lbs) | |
| sulfuric acid | 7664-93-9 | 1000 | * | |

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

SARA 304 Extremely Hazardous Substances Reportable Quantity

| Components | CAS-No. | Component RQ | Calculated product RQ | |
|---------------|-----------|--------------|-----------------------|--|
| | | (lbs) | (lbs) | |
| sulfuric acid | 7664-93-9 | 1000 | * | |

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

SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 302 EHS TPQ.

SARA 311/312 Hazards : Acute toxicity (any route of exposure)



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Skin corrosion or irritation Respiratory or skin sensitization

Carcinogenicity

SARA 313 : This material does not contain any chemical components with

known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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

TSCA : Substance(s) not listed on TSCA inventory

TSCA list

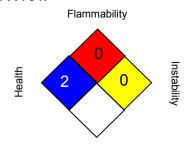
No substances are subject to a Significant New Use Rule.

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

SECTION 16. OTHER INFORMATION

Further information

NFPA 704:



Special hazard

HMIS® IV:



HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
NIOSH REL : USA. NIOSH Recommended Exposure Limits

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

its for Air Contaminants

US WEEL : USA. Workplace Environmental Exposure Levels (WEEL)

ACGIH / TWA : 8-hour, time-weighted average

ACGIH / C : Ceiling limit

NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour

workday during a 40-hour workweek

NIOSH REL / ST : STEL - 15-minute TWA exposure that should not be exceeded

at any time during a workday

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

US WEEL / TWA : 8-hr TWA



ENDIGO ZCX

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AICS - Australian Inventory of Chemical Substances; 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 : 11/22/2019

The information provided in this Material 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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