

**QUADRIS TOP** 

Version Revision Date: SDS Number: This version replaces all previous versions. 0.0 05/17/2023 S1356545232

#### **SECTION 1. IDENTIFICATION**

Product name : QUADRIS TOP

Design code. : A13703G

Product Registration number : 100-1313

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

E-mail address : sds.requests@syngenta.com

Emergency telephone : 1 800 888 8372

Recommended use of the chemical and restrictions on use

Recommended use : Fungicide

Restrictions on use : General Use Pesticide

### **SECTION 2. HAZARDS IDENTIFICATION**

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

Acute toxicity (Oral) : Category 4

Acute toxicity (Inhalation) : Category 4

Skin sensitization : Sub-category 1B

**GHS** label elements

Hazard pictograms :

Signal Word : Warning

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



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H317 May cause an allergic skin reaction.

**Precautionary Statements** 

#### Prevention:

P261 Avoid breathing mist or vapors.

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.

#### 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.

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

attention.

P363 Wash contaminated clothing before reuse.

#### Disposal:

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

# Other hazards

None known.

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

#### Components

Chemical name	CAS-No.	Concentration (% w/w)
Azoxystrobin	131860-33-8	18.018
C16-18 alcohols, ethoxylated	68439-49-6	>= 10 - < 20
difenoconazole	119446-68-3	11.2613
propane-1,2-diol	57-55-6	>= 5 - < 10
Residues (petroleum), catalytic re-	68425-94-5	>= 1 - < 5
former fractionator, sulfonated, poly-		
mers with formaldehyde, sodium salts		

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.



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Keep patient warm and at rest.

Call a physician or poison control center immediately.

In case of skin contact : Take off all contaminated clothing 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

Nonspecific

No symptoms known or expected.

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.

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.



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

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 : No special protective measures against fire required.

Avoid contact with skin and eyes. When using do not eat, drink or smoke. For personal protection see section 8.

Conditions for safe storage : No special storage conditions required.

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.

Further information on stor-

age stability

Physically and chemically stable for at least 2 years when

stored in the original unopened sales container at ambient

temperatures.

## SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Ingredients with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Azoxystrobin	131860-33-8	TWA	4 mg/m3	Syngenta
difenoconazole	119446-68-3	TWA	5 mg/m3	Syngenta
propane-1,2-diol	57-55-6	TWA	10 mg/m3	US WEEL

**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



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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.

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 : light yellow to yellow



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Odor : weak

Odor Threshold : No data available

pH : 5-9

Concentration: 1 %w/v

7.5 - 8.5 (68 °F / 20 °C) 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

Flammability (solid, gas) : No data available

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 : 1.11 g/cm3 (68 °F / 20 °C)

Solubility(ies)

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Autoignition temperature : 941 °F / 505 °C

Decomposition temperature : No data available

Viscosity

Viscosity, dynamic : 169 - 646 mPa.s (68 °F / 20 °C)

98.0 - 472 mPa.s (104 °F / 40 °C)

Viscosity, kinematic : No data available

Explosive properties : Not explosive



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

Surface tension : 27.9 mN/m, 68 °F / 20 °C

Particle size : No data available

### **SECTION 10. STABILITY AND REACTIVITY**

Reactivity : None reasonably foreseeable.

Chemical stability : Stable under normal conditions.

Possibility of hazardous reac-

tions

No dangerous reaction known under conditions of normal use.

Conditions to avoid : No decomposition if used as directed.

Incompatible materials : None known.

Hazardous decomposition

products

No hazardous decomposition products are known.

### **SECTION 11. TOXICOLOGICAL INFORMATION**

# Information on likely routes of exposure

Ingestion Inhalation Skin contact Eye contact

### Acute toxicity

**Product:** 

Acute oral toxicity : LD50 (Mouse, male and female): 1,424 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): 2.06 - < 5.17 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, male and female): > 2,000 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

### **Components:**

Azoxystrobin:

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

Acute inhalation toxicity : LC50 (Rat, female): 0.7 mg/l

Exposure time: 4 h



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Test atmosphere: dust/mist

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

Assessment: The substance or mixture has no acute dermal

toxicity

C16-18 alcohols, ethoxylated:

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

single ingestion.

difenoconazole:

Acute oral toxicity : LD50 (Rat, male and female): 1,453 mg/kg

Acute inhalation toxicity : LC50 (Rat, male and female): > 3,300 mg/m3

Exposure time: 4 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

Acute dermal toxicity : LD50 (Rabbit, male and female): > 2,010 mg/kg

Assessment: The substance or mixture has no acute dermal

toxicity

Skin corrosion/irritation

**Product:** 

Species : Rabbit

Result : No skin irritation

**Components:** 

Azoxystrobin:

Species : Rabbit

Result : No skin irritation

difenoconazole:

Species : Rabbit

Result : No skin irritation

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formalde-

hyde, sodium salts:

Method : in vitro skin corrosion test

Result : Irritating to skin.

Serious eye damage/eye irritation

**Product:** 

Species : Rabbit

Result : No eye irritation



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Components: Azoxystrobin:

**Species** Rabbit

Result No eye irritation

C16-18 alcohols, ethoxylated:

Result Irreversible effects on the eye

difenoconazole:

**Species** Rabbit

Result Irritation to eyes, reversing within 7 days

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formalde-

hyde, sodium salts:

Result Risk of serious damage to eyes.

Method in vitro eye irritation test

Respiratory or skin sensitization

**Product:** 

Test Type **Buehler Test Species** Guinea pig

Result The product is a skin sensitizer, sub-category 1B.

**Components:** 

Azoxystrobin:

**Species** Guinea pig

Result Did not cause sensitization on laboratory animals.

difenoconazole:

**Species** Guinea pig

Result Did not cause sensitization on laboratory animals.

Germ cell mutagenicity

**Components:** 

Azoxystrobin:

Germ cell mutagenicity -

Animal testing did not show any mutagenic effects.

Assessment

difenoconazole:

Germ cell mutagenicity -

Assessment

Animal testing did not show any mutagenic effects.



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Carcinogenicity

Components:

Azoxystrobin:

Carcinogenicity - Assess-

ment

: No evidence of carcinogenicity in animal studies.

difenoconazole:

Carcinogenicity - Assess-

ment

Weight of evidence does not support classification as a car-

cinogen

Reproductive toxicity

Components:

Azoxystrobin:

Reproductive toxicity - As-

sessment

: No toxicity to reproduction

difenoconazole:

Reproductive toxicity - As-

sessment

: No toxicity to reproduction

STOT-single exposure

**Components:** 

difenoconazole:

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

organ toxicant, single exposure.

STOT-repeated exposure

**Components:** 

Azoxystrobin:

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

organ toxicant, repeated exposure.

difenoconazole:

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

organ toxicant, repeated exposure.

**SECTION 12. ECOLOGICAL INFORMATION** 

**Ecotoxicity** 

**Product:** 

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 1.7 mg/l

Exposure time: 96 h



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LC50 (Cyprinus carpio (Carp)): 4.2 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

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)): 3.9

mg/l

Exposure time: 96 h

NOEC (Raphidocelis subcapitata (freshwater green alga)):

0.23 mg/l

End point: Growth rate Exposure time: 96 h

**Components:** 

Azoxystrobin:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 0.47 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.28 mg/l

Exposure time: 48 h

EC50 (Americamysis): 0.055 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic

plants

ErC50 (Raphidocelis subcapitata (freshwater green alga)): 2

mg/

Exposure time: 96 h

NOEC (Raphidocelis subcapitata (freshwater green alga)):

0.038 mg/l

End point: Growth rate Exposure time: 96 h

ErC50 (Navicula pelliculosa (Freshwater diatom)): 0.301 mg/l

Exposure time: 96 h

NOEC (Navicula pelliculosa (Freshwater diatom)): 0.02 mg/l

End point: Growth rate Exposure time: 96 h

Toxicity to fish (Chronic tox-

icity)

NOEC (Oncorhynchus mykiss (rainbow trout)): 0.16 mg/l

Exposure time: 28 d

NOEC (Pimephales promelas (fathead minnow)): 0.147 mg/l

Exposure time: 33 d

Toxicity to daphnia and other aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.044 mg/l

Exposure time: 21 d

NOEC (Americamysis): 0.0095 mg/l



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Exposure time: 28 d

Toxicity to microorganisms IC50 (Pseudomonas putida): > 3.2 mg/l

Exposure time: 6 h

difenoconazole:

Toxicity to fish LC50 (Oncorhynchus mykiss (rainbow trout)): 1.1 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.77 mg/l

Exposure time: 48 h

EC50 (Americamysis): 0.15 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic

plants

EC10 (Navicula pelliculosa (Freshwater diatom)): 0.0697 mg/l

End point: Growth rate Exposure time: 72 h

ErC50 (Desmodesmus subspicatus (green algae)): 0.0876

mg/l

Exposure time: 72 h

EC10 (Desmodesmus subspicatus (green algae)): 0.015 mg/l

End point: Growth rate Exposure time: 72 h

Toxicity to fish (Chronic tox-

icity)

EC10 (Pimephales promelas (fathead minnow)): 0.01298 mg/l

Exposure time: 34 d

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

EC10 (Daphnia magna (Water flea)): 0.0078 mg/l

Exposure time: 21 d

EC10 (Americamysis): 0.00572 mg/l

Exposure time: 28 d

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

Exposure time: 3 h

Persistence and degradability

**Components:** 

Azoxystrobin:

Biodegradability Result: Not readily biodegradable.

Degradation half life: 214 d Stability in water

Remarks: The substance is stable in water.

difenoconazole:

Biodegradability Result: Not readily biodegradable.

Stability in water Degradation half life: 1 d



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Remarks: Product is not persistent.

Residues (petroleum), catalytic reformer fractionator, sulfonated, polymers with formaldehyde, sodium salts:

Biodegradability : Result: Not readily biodegradable.

Bioaccumulative potential

**Components:** 

Azoxystrobin:

Bioaccumulation : Remarks: Does not bioaccumulate.

difenoconazole:

Bioaccumulation : Remarks: Does not bioaccumulate.

Partition coefficient: n-

octanol/water

log Pow: 4.4 (77 °F / 25 °C)

Mobility in soil

**Components:** 

Azoxystrobin:

Distribution among environ-

mental compartments

Stability in soil : Dissipation time: 80 d

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

difenoconazole:

Distribution among environ-

mental compartments

Remarks: Slightly mobile in soils

Stability in soil : Dissipation time: 122 d

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

Other adverse effects

**Components:** 

Azoxystrobin:

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

Remarks: Azoxystrobin has low to very high mobility in soil.

very persistent and very bioaccumulating (vPvB).

difenoconazole:

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



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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.

(AZOXYSTROBIN, DIFENOCONAZOLE)

Class 9 Ш Packing group Labels 9

**IATA-DGR** 

UN 3082 UN/ID No.

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

(AZOXYSTROBIN, DIFENOCONAZOLE)

Class 9 Packing group Ш

Miscellaneous Labels

Packing instruction (cargo

aircraft)

964

Packing instruction (passen-

964

ger aircraft)

Environmentally hazardous yes

**IMDG-Code** 

**UN** number UN 3082

Proper shipping name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

NOS

(AZOXYSTROBIN, DIFENOCONAZOLE)

Class 9 Ш Packing group Labels 9 F-A, S-F EmS Code



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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: Caution

Harmful if swallowed.

Harmful if absorbed through skin.

Avoid contact with skin, eyes or clothing.

Wear protective eyewear.

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

Remove and wash contaminated clothing before re-use.

### SARA 304 Extremely Hazardous Substances Reportable Quantity

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

### 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)

Respiratory or skin sensitization

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.

#### **SECTION 16. OTHER INFORMATION**

#### **Further information**



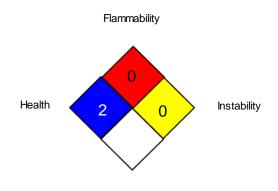
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#### NFPA 704:



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

Syngenta : Syngenta Occupational Exposure Limits

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

Syngenta / TWA : Time weighted average

US WEEL / TWA : 8-hr TWA

AllC - 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



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Inventory; TECI - Thailand Existing Chemicals 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

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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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