# Talstar 80 SC Insecticide/Miticide



Version **Revision Date:** SDS Number: Date of last issue: -

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### **SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Product name : Talstar 80 SC Insecticide/Miticide

Recommended use of the chemical and restrictions on use

Recommended use : Can be used as insecticide/miticide

Restrictions on use Use as recommended by the label.

Manufacturer or supplier's details

Company FMC Australasia Pty Ltd

Address Building B, Level 2, 12 Julius Avenue,

North Ryde NSW 2113

Australia

Telephone +6161029887900

Telefax : +61610298870911

E-mail address SDS-Info@fmc.com

Emergency telephone number: For leak, fire, spill or accident emergencies, call:

1800 033 111 (lxom)

Medical emergency:

1 800 033 111 (Transport and 24 h Medical information)

## **SECTION 2. HAZARDS IDENTIFICATION**

**GHS Classification** 

Acute toxicity (Oral) : Category 4

Specific target organ toxicity - : Category 2 (Central nervous system)

single exposure

repeated exposure

Specific target organ toxicity - : Category 2 (Central nervous system)

**GHS** label elements

Hazard pictograms





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Signal word : Warning

Hazard statements : H302 Harmful if swallowed.

H371 May cause damage to organs (Central nervous system). H373 May cause damage to organs (Central nervous system)

through prolonged or repeated exposure.

Precautionary statements : Prevention:

P260 Do not breathe mist or vapours. P264 Wash skin thoroughly after handling.

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

Response:

P301 + P312 + P330 IF SWALLOWED: Call a POISON

CENTER/ doctor if you feel unwell. Rinse mouth.

P308 + P311 IF exposed or concerned: Call a POISON

CENTER/ doctor.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

### Other hazards which do not result in classification

Very toxic to aquatic life with long lasting effects.

#### **SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

Substance / Mixture : Mixture

#### Components

Chemical name	CAS-No.	Concentration (% w/w)	
bifenthrin (ISO)	82657-04-3	>= 1 -< 10	
propane-1,2-diol	57-55-6	< 10	

#### **SECTION 4. FIRST AID MEASURES**

General advice : Move out of dangerous area.

Show this safety data sheet to the doctor in attendance.

Do not leave the victim unattended.

If inhaled : If unconscious, place in recovery position and seek medical

advice

If symptoms persist, call a physician.

In case of skin contact : Wash off with soap and plenty of water.

Get medical attention if irritation develops and persists.

In case of eye contact : Flush eyes with water as a precaution.

Remove contact lenses.

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Protect unharmed eye.

Keep eye wide open while rinsing.

If eye irritation persists, consult a specialist.

If swallowed : Induce vomiting immediately and call a physician.

Keep respiratory tract clear.

Do not give milk or alcoholic beverages.

Never give anything by mouth to an unconscious person.

If symptoms persist, call a physician. Take victim immediately to hospital.

Most important symptoms

and effects, both acute and

delayed

Harmful if swallowed.

May cause damage to organs.

May cause damage to organs through prolonged or repeated

exposure.

Notes to physician : Treat symptomatically.

#### **SECTION 5. FIREFIGHTING MEASURES**

Suitable extinguishing media : Dry chemical

Carbon dioxide (CO2)

Water spray Foam

Unsuitable extinguishing

media

High volume water jet

Specific hazards during fire-

fighting

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

courses.

Hazardous combustion prod-

ucts

Fire may produce irritating, corrosive and/or toxic gases.

Carbon oxides

Fluorinated compounds Chlorinated compounds

Specific extinguishing meth-

ods

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 firefighters

Wear self-contained breathing apparatus for firefighting if nec-

essary.

Hazchem Code : •3Z

#### **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Environmental precautions : Prevent product from entering drains.

Prevent further leakage or spillage if safe to do so.

If the product contaminates rivers and lakes or drains inform

respective authorities.

Methods and materials for : Soak up with inert absorbent material (e.g. sand, silica gel,

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containment and cleaning up acid binder, universal binder, sawdust).

Keep in suitable, closed containers for disposal.

#### **SECTION 7. HANDLING AND STORAGE**

Advice on protection against :

fire and explosion

Normal measures for preventive fire protection.

Advice on safe handling : Do not breathe vapours/dust.

For personal protection see section 8.

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

plication area.

Dispose of rinse water in accordance with local and national

regulations.

Hygiene measures : When using do not eat or drink.

When using do not smoke.

Wash hands before breaks and at the end of workday.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated

place.

Containers which are opened must be carefully resealed and

kept upright to prevent leakage. Observe label precautions.

Electrical installations / working materials must comply with

the technological safety standards.

Further information on stor-

age stability

No decomposition if stored and applied as directed.

# **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

# Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
propane-1,2-diol	57-55-6	TWA (partic- ulate)	10 mg/m3	AU OEL
		TWA (Total (vapour and particles))	150 ppm 474 mg/m3	AU OEL

## Personal protective equipment

Respiratory protection : In case of mist, spray or aerosol exposure wear suitable per-

sonal respiratory protection and protective suit.

Hand protection

Material : Wear chemical resistant gloves, such as barrier laminate,

butyl rubber or nitrile rubber.

Remarks : The suitability for a specific workplace should be discussed

with the producers of the protective gloves.





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Eye protection : Eye wash bottle with pure water

Tightly fitting safety goggles

Skin and body protection : Impervious clothing

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

# **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : liquid

Colour : beige

Odour : mild

pH : 6 - 7.2

Flash point : > 100 °C

Method: closed cup

Flammability (liquids) : Does not sustain combustion.

Self-ignition : No data available

Solubility(ies)

Water solubility : dispersible

Explosive properties : Not explosive

Oxidizing properties : Non-oxidizing

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

Reactivity : No decomposition if stored and applied as directed.

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

Possibility of hazardous reac-

tions

No decomposition if stored and applied as directed.

Conditions to avoid : Protect from frost, heat and sunlight.

Incompatible materials : Strong oxidizing agents

Strong acids and strong bases

Hazardous decomposition

products

Stable under recommended storage conditions.

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

**Acute toxicity** 

Harmful if swallowed.

**Product:** 

Acute oral toxicity : LD50 (Rat): 695 mg/kg

Method: US EPA Test Guideline OPP 81-1

Acute inhalation toxicity : LC50 (Rat): > 11.58 mg/l

Exposure time: 1 h

Test atmosphere: dust/mist

Assessment: The substance or mixture has no acute inhala-

tion toxicity

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

Method: US EPA Test Guideline OPP 81-2

Assessment: The substance or mixture has no acute dermal

toxicity

**Components:** 

bifenthrin (ISO):

Acute oral toxicity : LD50 (Rat, male and female): 56.7 mg/kg

Acute inhalation toxicity : LC50 (Rat, female): 0.8 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

LC50 (Rat, male): 1.10 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist

Method: OECD Test Guideline 403

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

propane-1,2-diol:

Acute oral toxicity : LD50 (Rat, male and female): 22,000 mg/kg

Acute inhalation toxicity : LC0 (Rabbit): 31.7 mg/l

Exposure time: 2 h Test atmosphere: vapour Remarks: no mortality

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

Assessment: The substance or mixture has no acute dermal

toxicity

Skin corrosion/irritation

Not classified based on available information.





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**Product:** 

Species : Rabbit

Method : US EPA Test Guideline OPP 81-5

Result : No skin irritation

**Components:** 

bifenthrin (ISO):

Species : Rabbit

Method : EPA OPP 81-5
Result : No skin irritation

propane-1,2-diol:

Species : Rabbit

Method : OECD Test Guideline 404

Result : No skin irritation

Serious eye damage/eye irritation

Not classified based on available information.

**Product:** 

Species : Rabbit

Result : No eye irritation Method : EPA OPP 81-4

**Components:** 

bifenthrin (ISO):

Species : Rabbit

Result : No eye irritation Method : EPA OPP 81-4

propane-1,2-diol:

Species : Rabbit

Result : No eye irritation

Method : OECD Test Guideline 405

Respiratory or skin sensitisation

Skin sensitisation

Not classified based on available information.

Respiratory sensitisation

Not classified based on available information.

**Product:** 

Species : Guinea pig Method : EPA OPP 81-6

Result : Does not cause skin sensitisation.

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**Components:** 

bifenthrin (ISO):

Test Type : Magnussen-Kligman test Method : OECD Test Guideline 406

Result : May cause sensitisation by skin contact.

propane-1,2-diol:

Test Type : Maximisation Test

Species : Guinea pig Result : negative

**Chronic toxicity** 

Germ cell mutagenicity

Not classified based on available information.

**Components:** 

bifenthrin (ISO):

Genotoxicity in vitro : Test Type: gene mutation test

Test system: Chinese hamster ovary cells

Metabolic activation: with and without metabolic activation

Result: negative

Test Type: reverse mutation assay

Metabolic activation: with and without metabolic activation

Result: negative

Test Type: Mouse lymphoma assay

Metabolic activation: with and without metabolic activation

Result: negative

Genotoxicity in vivo : Test Type: Sex-linked Recessive Lethal Test

Species: Drosophila melanogaster (vinegar fly)

Result: negative

Test Type: unscheduled DNA synthesis assay

Species: Rat

Method: OECD Test Guideline 486

Result: negative

propane-1,2-diol:

Genotoxicity in vitro : Test Type: reverse mutation assay

Result: negative

Genotoxicity in vivo : Test Type: In vivo micronucleus test

Species: Mouse Result: negative

Carcinogenicity

Not classified based on available information.

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### **Components:**

bifenthrin (ISO):

Species : Rat, female
Application Route : Oral
Exposure time : 2 Years

NOAEL : 3 mg/kg bw/day

Result : negative

Species : Mouse, male

Application Route : Oral

Exposure time : 18 month(s)
NOAEL : 7.6 mg/kg bw/day

Result : positive

Symptoms : malignant tumors

propane-1,2-diol:

Species : Rat
Application Route : Oral
Exposure time : 2 Years
Result : negative

## Reproductive toxicity

Not classified based on available information.

#### Components:

bifenthrin (ISO):

Effects on fertility : Test Type: Two-generation study

Species: Rat

Application Route: Oral

General Toxicity - Parent: NOAEL: 3 mg/kg bw/day General Toxicity F1: NOAEL: 5 mg/kg bw/day

Result: negative

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Rabbit

Application Route: Oral

General Toxicity Maternal: NOAEL: 2.7 mg/kg bw/day

Teratogenicity: NOAEL: 2.7 mg/kg bw/day

Symptoms: Maternal effects Result: No teratogenic effects

Test Type: Embryo-foetal development

Species: Rat

Application Route: Oral

General Toxicity Maternal: NOAEL: 1 mg/kg bw/day

Teratogenicity: NOAEL: 2 mg/kg bw/day

Result: No teratogenic effects

propane-1,2-diol:

Effects on fertility : Test Type: reproductive and developmental toxicity study

Species: Mouse





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Application Route: Oral Result: negative

Effects on foetal develop-

ment

Test Type: Embryo-foetal development

Species: Mouse

Application Route: Oral

Method: OECD Test Guideline 414

Result: Animal testing did not show any effects on fertility.

Remarks: Based on data from similar materials

### STOT - single exposure

May cause damage to organs (Central nervous system).

## **Components:**

## bifenthrin (ISO):

Target Organs : Central nervous system
Assessment : Causes damage to organs.

## STOT - repeated exposure

May cause damage to organs (Central nervous system) through prolonged or repeated exposure.

#### Components:

## bifenthrin (ISO):

Target Organs : Central nervous system

Assessment : The substance or mixture is classified as specific target organ

toxicant, repeated exposure, category 1.

# Repeated dose toxicity

## **Components:**

## bifenthrin (ISO):

Species : Rat, male and female

NOEL : 100 ppm Application Route : Oral - feed Exposure time : 90 d

Remarks : No toxicologically significant effects were found.

Species : Dog, male and female NOEL : 2.5 mg/kg bw/day Application Route : Oral - feed

Exposure time : 13 w
Symptoms : Tremors

#### propane-1,2-diol:

Species : Rat, male and female

NOAEL : 1,700 mg/kg

Application Route : Oral Exposure time : 2 Years

Species : Rat, male and female





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NOAEL : 1,000 mg/kg LOAEL : 160 mg/kg Application Route : Inhalation Exposure time : 90 Days

**Aspiration toxicity** 

Not classified based on available information.

**Components:** 

bifenthrin (ISO):

The substance does not have properties associated with aspiration hazard potential.

**Further information** 

Product:

Remarks : No data available

## **SECTION 12. ECOLOGICAL INFORMATION**

**Ecotoxicity** 

Components:

bifenthrin (ISO):

Toxicity to fish : LC50 (Salmo gairdneri): 0.15 µg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

EC50 (Daphnia magna (Water flea)): 0.11 μg/l

Exposure time: 48 h

Toxicity to algae/aquatic

plants

EC50 (algae): 0.822 mg/l

Exposure time: 72 h

Toxicity to fish (Chronic tox-

icity)

NOEC (Oncorhynchus mykiss (rainbow trout)): 0.00012 mg/l

Exposure time: 21 d

Toxicity to daphnia and other : aquatic invertebrates (Chron-

ic toxicity)

NOEC (Daphnia magna (Water flea)): 0.0013 µg/l

Exposure time: 21 d

NOEC (Daphnia magna (Water flea)): 0.00095 µg/l

Exposure time: 21 d

Toxicity to soil dwelling or-

ganisms

LD50 (Eisenia fetida (earthworms)): > 16 mg/kg

Exposure time: 14 d

Toxicity to terrestrial organ-

isms

LD50 (Colinus virginianus (Bobwhite quail)): 1,800 mg/kg

LD50 (Apis mellifera (bees)): 0.044 - 0.11 µg/bee

End point: Acute contact toxicity

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LD50 (Apis mellifera (bees)): 0.1 µg/bee

End point: Acute oral toxicity

LD50 (Anas platyrhynchos (Mallard duck)): > 2,150 mg/kg

propane-1,2-diol:

Toxicity to fish : LC50 (Oncorhynchus mykiss (rainbow trout)): 40,613 mg/l

Exposure time: 96 h

Toxicity to daphnia and other :

aquatic invertebrates

(Mysidopsis bahia (opossum shrimp)): 18,800 mg/l

Exposure time: 96 h

Toxicity to algae/aquatic

plants

EC50 (Pseudokirchneriella subcapitata (green algae)): 34,100

mg/l

Exposure time: 48 h

Method: OECD Test Guideline 201

Toxicity to daphnia and other

aquatic invertebrates (Chron-

ic toxicity)

NOEC: 13,020 mg/l Exposure time: 7 d

Toxicity to microorganisms : EC50 (Pseudomonas putida): > 20,000 mg/l

Exposure time: 18 h

# Persistence and degradability

#### **Components:**

bifenthrin (ISO):

Biodegradability : Result: Not readily biodegradable.

propane-1,2-diol:

Biodegradability : Result: Readily biodegradable.

Biodegradation: 23.6 % Exposure time: 64 d

Method: OECD Test Guideline 306

## **Bioaccumulative potential**

# **Components:**

bifenthrin (ISO):

Bioaccumulation : Species: Lepomis macrochirus (Bluegill sunfish)

Bioconcentration factor (BCF): 1,709

Remarks: Due to the distribution coefficient n-octanol/water,

accumulation in organisms is possible.

See section 9 for octanol-water partition coefficient.

Partition coefficient: n-

octanol/water

log Pow: 6

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propane-1,2-diol:

Partition coefficient: n-

octanol/water

log Pow: -1.07

Mobility in soil

**Components:** 

bifenthrin (ISO):

Distribution among environ-

mental compartments

Koc: 236610 ml/g, log Koc: 5.37

Remarks: immobile

Other adverse effects

**Product:** 

Additional ecological infor-

mation

An environmental hazard cannot be excluded in the event of

unprofessional handling or disposal.

Very toxic to aquatic life with long lasting effects.

**SECTION 13. DISPOSAL CONSIDERATIONS** 

**Disposal methods** 

Waste from residues : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with chemi-

cal or used container.

Send to a licensed waste management company.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product. 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. (Bifenthrin)

Class : 9
Packing group : III
Labels : 9

**IATA-DGR** 

UN/ID No. : UN 3082

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

(Bifenthrin)

Class : 9 Packing group : III

Labels : Miscellaneous





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Packing instruction (cargo

aircraft)

Packing instruction (passen: 964

ger aircraft)

Environmentally hazardous : yes

**IMDG-Code** 

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Bifenthrin)

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

Remarks : Environmentally hazardous substances/Marine Pollutants in

single or combination packaging containing a net quantity per single or inner packaging of 5 kg or less for solids, or having a net quantity per single or inner packaging of 5 L or less for liquids may be transported as non-dangerous goods as provided in special provision A197 of the IATA and section

2.10.2.7 of IMDG code.

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

Not applicable for product as supplied.

# **National Regulations**

**ADG** 

UN number : UN 3082

Proper shipping name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,

N.O.S.

(Bifenthrin)

Class : 9
Packing group : III
Labels : 9
Hazchem Code : •3Z

Remarks : Environmentally hazardous substances meeting the descrip-

tions of UN 3077 or UN 3082 are not subject to the ADG Code when transported by road or rail in packagings that do not incorporate a receptacle exceeding 500 kg / liters, or IBCs  $\,$ 

## 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**

Safety, health and environmental regulations/legislation specific for the substance or mixture





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Standard for the Uniform Scheduling of Medicines and

Poisons

: Schedule 6

APVMA Code: 45703

Prohibition/Licensing Requirements : There is no applicable prohibition,

authorisation and restricted use requirements, including for carcinogens referred to in Schedule 10 of the model WHS Act and Regula-

tions.

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

TCSI : On the inventory, or in compliance with the inventory

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

AIIC : Not in compliance with the inventory

DSL : This product contains the following components that are not

on the Canadian DSL nor NDSL.

2-METHYLBIPHENYL-3-YLMETHYL (Z)-(1RS,3RS)-3-(2-

CHLORO-3,3,3-TRIFLUOROPROP-1-ENYL)-2,2-DIMETHYLCYCLOPROPANECARBOXYLATE

Smectite-group minerals

ENCS : Not in compliance with the inventory

ISHL : Not in compliance with the inventory

KECI : Not in compliance with the inventory

PICCS : Not in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

NZIoC : Not in compliance with the inventory

TECI: Not in compliance with the inventory

# **SECTION 16. OTHER INFORMATION**

Revision Date : 06.03.2023

Date format : dd.mm.yyyy

Full text of other abbreviations

AU OEL : Australia. Workplace Exposure Standards for Airborne Con-

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taminants.

AU OEL / TWA : Exposure standard - time weighted average

AIIC - Australian Inventory of Industrial Chemicals; ANTT - National Agency for Transport by Land of Brazil; ASTM - American Society for the Testing of Materials; bw - Body weight; CMR -Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; 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; 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; n.o.s. - Not Otherwise Specified; Nch - Chilean Norm; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NOM - Official Mexican Norm; 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; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TDG - Transportation of Dangerous Goods; 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; WHMIS - Workplace Hazardous Materials Information System

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