

SAFETY DATA SHEET

according to the Globally Harmonized System and Canadian Hazardous Products Regulations

PERKADOX BTW-50

Print Date 2023/08/08 Version 3 Revision Date 2022/01/12 CA / EN

1. IDENTIFICATION

Product name : PERKADOX BTW-50

Product Use Description : Specific use(s): Curing agent

: Nouryon Functional Chemicals B.V. Company

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Netherlands

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Fax

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Emergency telephone 24 hours:+31 57 06 79211, US-CHEMTREC:1-800-424-9300,

CA-CANUTEC:1-613-996-6666, JP: +81 (836) 74 8810, CN: number

化学事故应急咨询电话: +86 532 8388 9090-:

CHEMTREC (24-hr): (800) 424-9300 (Toll-free in the U.S.,

Canada and the U.S. Virgin Islands)

CHEMTREC (24-hr): (703) 527-3887 (For calls originating

elsewhere / collect calls are accepted)

2. HAZARDS IDENTIFICATION

Emergency Overview

Appearance	paste	
Colour	white	
Odour	Faint.	

GHS Classification

Organic peroxides, Type E Eye irritation, Category 2B Skin sensitisation, Sub-category 1A Short-term (acute) aquatic hazard, Category 1

Long-term (chronic) aquatic hazard, Category 1

GHS label elements

Hazard pictograms :







Signal word : Warning

Hazard statements : H242 Heating may cause a fire.

H317 May cause an allergic skin reaction.

H320 Causes eye irritation.

H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements : **Prevention:**

P210 Keep away from heat, hot surfaces, sparks, open flames

and other ignition sources. No smoking. P234 Keep only in original packaging.

P235 Keep cool.

P240 Ground and bond container and receiving equipment.

P261 Avoid breathing dust or fume. P264 Wash skin thoroughly after handling.

P272 Contaminated work clothing should not be allowed out

of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye

protection/ face protection.

Response:

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

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and

easy to do. Continue rinsing.

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

advice/ attention.

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

attention.

P362 + P364 Take off contaminated clothing and wash it

before reuse.

P370 + P378 In case of fire: Use water spray, alcoholresistant foam, dry chemical or carbon dioxide to extinguish.

P391 Collect spillage.

Storage:

P403 Store in a well-ventilated place.

P410 Protect from sunlight. P420 Store separately.

Disposal:

P501 Dispose of contents/ container to an approved waste

disposal plant.

Carcinogenicity:

IARC : No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA : No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Common Name : Organic peroxide

Pure substance/mixture : Mixture

Hazardous components

Chemical name	CAS-No.	Classification	Concentration [% W/W]	
Dibenzoyl peroxide	94-36-0	Org. Perox. B; H241	>= 50 - <= 54	
		Eye Irrit. 2B; H320		
		Skin Sens. 1A; H317		
		Aquatic Acute 1; H400		
		Aquatic Chronic 1; H410		
		M-Factor (Acute): 10		
		M-Factor (Chronic): 10		
Dipropyleneglycol dibenzoate	27138-31-4	Aquatic Chronic 2; H411	>= 20 - <= 30	
zinc distearate	557-05-1	Aquatic Acute 1; H400	>= 1 - <= 5	

For the full text of the H-Statements mentioned in this Section, see Section 16.

4. FIRST AID MEASURES

General advice : Move out of dangerous area.

Consult a physician.

Show this safety data sheet to the doctor in attendance.

Inhalation : Consult a physician after significant exposure.

Skin contact : Take off contaminated clothing and shoes immediately.

Rinse immediately with plenty of water. If skin irritation persists, call a physician.

Eye contact : Rinse with plenty of water.

Remove contact lenses. Protect unharmed eye.

Keep eye wide open while rinsing.

Obtain medical attention.

Ingestion : Clean mouth with water and drink afterwards plenty of water.

Never give anything by mouth to an unconscious person.

Obtain medical attention.

Notes to physician

Symptoms : The symptoms and effects are as expected from the hazards

as shown in section 2. No specific product related symptoms

are known.

Risks : May cause an allergic skin reaction.

Causes eye irritation.

Treatment : Treat symptomatically.

5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use water spray, alcohol-resistant foam, dry chemical or

carbon dioxide.

Specific hazards during firefighting / Specific hazards arising from the chemical

: CAUTION: reignition may occur.

Supports combustion.

Water spray may be ineffective unless used by experienced

firefighters.

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

courses.

Hazardous decomposition products formed under fire

conditions.

Combustion products : Fire will produce smoke containing hazardous combustion

products (see section 10).

Special protective equipment

for firefighters

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

Further information : Use water spray to cool unopened 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.

See also Section 9. Physical and chemical properties: Safety data

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions : Use personal protective equipment.

Wear respiratory protection. Ensure adequate ventilation. Remove all sources of ignition.

Emergency measures on

accidental release

: Evacuate personnel to safe areas.

Only qualified personnel equipped with suitable protective

equipment may intervene.

Prevent unauthorised persons entering the zone.

Environmental precautions : Prevent product from entering drains.

Discharge into the environment must be avoided.

Methods for cleaning up / Methods for containment

: Keep wetted with water.

Confinement must be avoided.

Pick up and arrange disposal without creating dust.

Collect in plastic container for disposal as hazardous waste.

Never return spills in original containers for re-use.

Reference to other sections : For disposal considerations see section 13.

For personal protection see section 8.

7. HANDLING AND STORAGE

Handling

Advice on safe handling : For personal protection see section 8.

Avoid formation of respirable particles.

Do not breathe vapours/dust.

Avoid contact with skin, eyes and clothing.

Smoking, eating and drinking should be prohibited in the

application area.

Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national

regulations.

Advice on protection against

fire and explosion

: Use explosion protected equipment.

Provide appropriate exhaust ventilation at places where dust

is formed.

Keep away from sources of ignition - No smoking.

No sparking tools should be used.

Keep away from reducing agents (e.g. amines), acids, alkalies and heavy metal compounds (e.g. accelerators, driers, metal

soaps).

Do not cut or weld on or near this container even when empty.

Keep away from combustible material.

Temperature class : It is recommended to use electrical equipment of temperature

group T3. However, autoignition can never be excluded.

Storage

Requirements for storage

areas and containers

: No smoking.

Keep in a well-ventilated place.

Electrical installations / working materials must comply with

the technological safety standards. Keep only in original container. Store away from other materials.

Maximum storage

temperature:

: 25 °C

Other data : No decomposition if stored and applied as directed.

Maximum storage temperature is for quality only.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Dibenzoyl peroxide	94-36-0	TWA	5 mg/m3	CA AB OEL
		TWA	5 mg/m3	CA BC OEL
		TWAEV	5 mg/m3	CA QC OEL
zinc distearate	557-05-1	TWA	10 mg/m3	CA AB OEL
		TWA (Total dust)	10 mg/m3	CA BC OEL
		TWA (respirable dust fraction)	3 mg/m3	CA BC OEL
		STEL (Total dust)	20 mg/m3	CA BC OEL
		TWAEV	10 mg/m3	CA QC OEL

Occupational exposure limits of decomposition products

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
Benzene	71-43-2	STEL	2.5 ppm 8 mg/m3	CA AB OEL
		TWA	0.5 ppm 1.6 mg/m3	CA AB OEL
		TWA	0.5 ppm	CA BC OEL
		STEL	2.5 ppm	CA BC OEL
		TWA	0.5 ppm	CA ON OEL
		STEL	2.5 ppm	CA ON OEL
		TWAEV	1 ppm 3 mg/m3	CA QC OEL
		STEV	5 ppm 15.5 mg/m3	CA QC OEL
Carbon dioxide	124-38-9	TWA	5,000 ppm 9,000 mg/m3	CA AB OEL
		STEL	30,000 ppm 54,000 mg/m3	CA AB OEL
		TWA	5,000 ppm	CA BC OEL
		STEL	15,000 ppm	CA BC OEL
		STEV	30,000 ppm 54,000 mg/m3	CA QC OEL
		TWAEV	5,000 ppm 9,000 mg/m3	CA QC OEL

Engineering measures

: Explosion proof ventilation recommended.

Ensure that eyewash stations and safety showers are close

to the workstation location.

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Personal protective equipment

Respiratory protection : Handle in accordance with good industrial hygiene and safety

practice

Hand protection

Material : Neoprene

Material : Nitrile rubber

Eye protection : Tightly fitting safety goggles

Skin and body protection : Protective suit

Hygiene measures : Handle in accordance with good industrial hygiene and safety

practice.

When using do not eat or drink. When using do not smoke.

Wash hands before breaks and at the end of workday.

Wash contaminated clothing before re-use.

Environmental exposure controls

General advice : Prevent product from entering drains.

Discharge into the environment must be avoided.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : paste

Colour : white

Odour : Faint.

Odour Threshold : No data available

pH : Not applicable

Melting point : No data available

Boiling point/boiling range : Decomposes below the boiling point.

Flash point : Above the SADT value

Evaporation rate : Not applicable

Flammability (solid, gas) : Decomposition products may be flammable.

Upper explosion limit / Upper

flammability limit

No data available

Lower explosion limit / Lower : No data available

flammability limit

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Vapour pressure : not determined

Relative vapour density : 10.8 (20 °C)

Solvent (Air = 1.0)

Relative density : 1.2 (20 °C)

Solubility(ies)

Water solubility : partly soluble (20 °C)

Solubility in other solvents : No data available

Partition coefficient: n-

octanol/water

No data available

Auto-ignition temperature : Test method not applicable

Decomposition temperature : SADT - (Self accelerating decomposition temperature) is the

lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause

decomposition below the SADT.

Self-Accelerating

decomposition temperature

(SADT)

50 °C

Viscosity

Viscosity, dynamic : thixotropic

Viscosity, kinematic : thixotropic

Explosive properties : Not explosive

Oxidizing properties : Not classified as oxidising.

Active Oxygen Content : 3.25 %

Organic peroxides : 50 %

This safety datasheet only contains information relating to safety and does not replace any product information or product specification.

10. STABILITY AND REACTIVITY

Conditions to avoid : A high degree of confinement must be avoided.

Heat, flames and sparks.

Materials to avoid : Contact with the following incompatible materials will result in

hazardous decomposition:

Acids and bases

Iron Copper

Reducing agents Heavy metals

Rust

Do not mix with peroxide accelerators, unless under controlled

processing.

Use only stainless steel 316, PP, polyethylene or glass-lined

equipment.

For queries regarding the suitability of other materials please

contact the supplier.

Hazardous decomposition

products

Carbon oxides
 Benzoic acid
 Benzene
 Carbon dioxide

Thermal decomposition : SADT - (Self accelerating decomposition temperature) is the

lowest temperature at which self accelerating decomposition may occur with a substance in the packaging as used in transport. A dangerous self-accelerating decomposition reaction and, under certain circumstances, explosion or fire can be caused by thermal decomposition at and above the SADT. Contact with incompatible substances can cause

decomposition below the SADT.

Reactivity : Stable under normal conditions.

Chemical stability : Stable under recommended storage conditions.

Hazardous reactions : No dangerous reaction known under conditions of normal use.

Self-Accelerating

decomposition temperature

(SADT)

: 50 °C

11. TOXICOLOGICAL INFORMATION

PRODUCT INFORMATION:

Hazard Summary

Acute toxicity : Not classified based on available information.

Skin corrosion/irritation : Not classified based on available information.

Serious eye damage/eye

irritation

: Causes eye irritation.

Respiratory or skin

sensitisation

Respiratory sensitisation: Not classified based on available

information.

Skin sensitisation: May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified based on available information.

Carcinogenicity : Not classified based on available information.

Reproductive toxicity : Not classified based on available information.

STOT - single exposure : Not classified based on available information.

STOT - repeated exposure : Not classified based on available information.

Aspiration hazard : Not classified based on available information.

Potential Health Effects

Inhalation : Thermal decomposition can lead to release of irritating gases

and vapours.

Skin : May cause an allergic skin reaction.

May cause skin irritation.

Eyes : Causes serious eye irritation.

Ingestion : May cause irritation of the mucous membranes.

: None known.

Aggravated Medical

Condition

Symptoms of Overexposure : The symptoms and effects are as expected from the hazards

as shown in section 2. No specific product related symptoms

are known.

Toxicology Assessment

Further information : No further data available.

Test result

Acute oral toxicity : Acute toxicity estimate: 3,745 mg/kg

Method: Calculation method

Acute dermal toxicity : Acute toxicity estimate: > 5,000 mg/kg

Method: Calculation method

Carcinogenicity:

IARC : No component of this product present at levels greater than or

equal to 0.1% is identified as probable, possible or confirmed

human carcinogen by IARC.

OSHA : No component of this product present at levels greater than or

equal to 0.1% is on OSHA's list of regulated carcinogens.

TOXICOLOGY DATA FOR THE COMPONENTS:

Toxicology Assessment

Component: Dibenzoyl peroxide

CMR effects : Carcinogenicity: Not carcinogenic.

Mutagenicity: Not mutagenic.

Teratogenicity: Did not show teratogenic effects in animal

experiments.

Reproductive toxicity: No evidence of adverse effects on sexual function and fertility, or on development, based on

animal experiments.

Test result

Component: Dibenzoyl peroxide

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

Species: Mouse

Method: OECD Test Guideline 401

LD50: > 5,000 mg/kg

Species: Rat

Acute inhalation toxicity : LC50 (Rat, male): > 24.3 mg/l

Exposure time: 4 h

Test atmosphere: dust/mist Method: OECD Test Guideline 403

Assessment: The substance or mixture has no acute

inhalation toxicity

Skin irritation : Species: Rabbit

Result: No skin irritation

Method: OECD Test Guideline 404

Exposure time: 4 h

Eye irritation : Species: Rabbit

Result: Irritation to eyes, reversing within 7 days

Sensitisation : Species: Guinea pig

Classification: May cause sensitisation by skin contact.

Method: OECD Test Guideline 406

Local lymph node assay (LLNA)

Species: Mouse

Classification: The product is a skin sensitiser, sub-category

1A.

Method: OECD Test Guideline 429

Germ cell mutagenicity

Genotoxicity in vitro : In vitro gene mutation study in mammalian cells

mouse lymphoma cells

Result: negative

Method: OECD Test Guideline 476

Genotoxicity in vivo : Micronucleus test

Species: Mouse

Method: OECD Test Guideline 474

Result: negative

Carcinogenicity : Not classified due to data which are conclusive although

insufficient for classification.

Reproductive toxicity/Fertility : Test Type: reproductive and developmental toxicity study

Species: Rat, male and female

Application Route: Oral

General Toxicity F1: No observed adverse effect level: 500

mg/kg bw/day

Method: OECD Test Guideline 422

GLP: yes

Reproductive : Species: Rat

toxicity/Development/Teratog

enicity

Application Route: Oral

General Toxicity Maternal: No observed adverse effect level:

300 mg/kg bw/day

Embryo-foetal toxicity: No observed adverse effect level: 300

mg/kg bw/day

Method: OECD Test Guideline 414

GLP: yes

Target Organ Systemic

Toxicant - Single exposure

: Exposure routes: Ingestion

The substance or mixture is not classified as specific target

organ toxicant, single exposure.

Target Organ Systemic

Toxicant - Repeated

exposure

: Exposure routes: Ingestion

The substance or mixture is not classified as specific target

organ toxicant, repeated exposure.

Aspiration toxicity : No aspiration toxicity classification

Component: Dipropyleneglycol dibenzoate

Acute oral toxicity : LD50 Oral: 3,914 mg/kg

Species: Rat

Acute inhalation toxicity : LC50 (Rat): > 200 mg/l

Exposure time: 4 h

Acute dermal toxicity : LD50: 2,001 - 5,000 mg/kg

Species: Rat

Skin irritation : Result: No skin irritation

Sensitisation : Result: Not sensitizing.

Component: zinc distearate

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

Species: Rat

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Acute dermal toxicity : LD50: > 2,000 - 5,000 mg/kg

Aspiration toxicity : No aspiration toxicity classification

12. ECOLOGICAL INFORMATION

PRODUCT INFORMATION:

Ecotoxicology Assessment

Additional ecological

: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

information

COMPONENTS:

Ecotoxicology Assessment

Component: Dipropyleneglycol dibenzoate

Long-term (chronic) aquatic

: Toxic to aquatic life with long lasting effects.

hazard

Component: zinc distearate

Short-term (acute) aquatic

: Very toxic to aquatic life.

hazard

Test result

Component: Dibenzoyl peroxide

Ecotoxicity effects

Toxicity to fish : LC50: 0.06 mg/l

Exposure time: 96 h

Species: Oncorhynchus mykiss (rainbow trout)

Test Type: semi-static test

Method: OECD Test Guideline 203

Toxicity to daphnia and other

aquatic invertebrates

: EC50: 0.11 mg/l Exposure time: 48 h

Species: Daphnia magna (Water flea)

Test Type: static test

Method: OECD Test Guideline 202

Toxicity to algae : NOEC: 0.02 mg/l

Exposure time: 72 h

Species: Pseudokirchneriella subcapitata (green algae)

Test Type: static test

Method: OECD Test Guideline 201

M-Factor (Acute) : 10

M-Factor (Chronic) : 10

Toxicity to bacteria : EC50: 35 mg/l

Exposure time: 0.5 h
Species: activated sludge
Test Type: Respiration inhibition
Method: OECD Test Guideline 209

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: EC10: 0.001 mg/l Exposure time: 21 d reproduction rate

Species: Daphnia magna (Water flea)

Test Type: semi-static test Analytical monitoring: yes

Method: OECD Test Guideline 211

Elimination information (persistence and degradability)

Biodegradability : Test Type: Ready biodegradability

Inoculum: activated sludge, non-adapted

Concentration: 2 mg/l

Result: Readily biodegradable.

Testing period: 7 d Exposure time: 28 d

Kinetic: 7 d: 58 % 15 d: 63 % 21 d: 71 % 28 d: 71 %

Method: OECD Test Guideline 301D

GLP: yes

Component: Dipropyleneglycol dibenzoate

Ecotoxicity effects

Toxicity to fish : 3.7 mg/l

Exposure time: 96 h

Species: Pimephales promelas (fathead minnow)

Toxicity to daphnia and other

aquatic invertebrates

: 19.3 mg/l

Exposure time: 48 h

Species: Daphnia (water flea)

Toxicity to algae : 4.9 mg/l

Exposure time: 72 h Species: algae

Elimination information (persistence and degradability)

Biodegradability : Result: Readily biodegradable.

Component: zinc distearate

Ecotoxicity effects

Toxicity to fish (Chronic

toxicity)

: NOEC: 0.172 mg/l Exposure time: 30 d

Test Type: flow-through test

Read-across from supporting substance (structural analogue

or surrogate).

Toxicity to daphnia and other

aquatic invertebrates (Chronic toxicity)

: Lowest observed effect level: 1 mg/l

Exposure time: 21 d reproduction rate

Species: Daphnia magna (Water flea) Method: OECD Test Guideline 211

Read-across from supporting substance (structural analogue

or surrogate).

Elimination information (persistence and degradability)

Biodegradability : Result: Readily biodegradable.

13. DISPOSAL CONSIDERATIONS

Product : The product should not be allowed to enter drains, water

courses or the soil.

Do not contaminate ponds, waterways or ditches with

chemical or used container.

Dispose of contents/container in accordance with local

regulation.

Contaminated packaging : Empty remaining contents.

Dispose of as unused product.

Do not burn, or use a cutting torch on, the empty drum. Due to the high risk of contamination recycling/recovery is not

recommended.

Follow all warnings even after the container is emptied.

14. TRANSPORT INFORMATION

International Regulations

IATA-DGR

UN/ID No. : UN 3108

Proper shipping name : Organic peroxide type E, solid

(Dibenzoyl peroxide)

Class : 5.2 Subsidiary risk : HEAT

Packing group : Not Assigned Labels : 5.2 (HEAT)

Packing instruction (cargo : 570

aircraft)

Packing instruction : 570

(passenger aircraft)

Environmentally hazardous : yes

IMDG-Code

UN number : UN 3108

Proper shipping name : ORGANIC PEROXIDE TYPE E, SOLID

(Dibenzoyl peroxide)

Class : 5.2

Packing group : Not Assigned

Labels : 5.2 EmS Code : F-J, S-R Marine pollutant : yes

(Dibenzoyl peroxide)

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

Not applicable for product as supplied.

National Regulations

TDG

UN number : UN 3108

Proper shipping name : ORGANIC PEROXIDE TYPE E, SOLID

(Dibenzoyl peroxide)

Class : 5.2
Packing group : II
Labels : 5.2
ERG Code : 145
Marine pollutant : yes

(Dibenzoyl peroxide)

15. REGULATORY INFORMATION

Notification status

TCSI : YES. On the inventory, or in compliance with the inventory TSCA YES. All substances listed as active on the TSCA inventory AICS YES. On the inventory, or in compliance with the inventory DSL : YES. All components of this product are on the Canadian DSL **ENCS** : YES. On the inventory, or in compliance with the inventory ISHL : YES. On the inventory, or in compliance with the inventory KECI : YES. On the inventory, or in compliance with the inventory **PICCS** : YES. On the inventory, or in compliance with the inventory : YES. On the inventory, or in compliance with the inventory **IECSC** : YES. On the inventory, or in compliance with the inventory NZIoC

For explanation of abbreviation see section 16.

NPRI Components : zinc distearate

Dibenzoyl peroxide

Canadian lists

No substances are subject to a Significant New Activity Notification.

16. OTHER INFORMATION

Full text of H-Statements

H241 : Heating may cause a fire or explosion. H317 : May cause an allergic skin reaction.

H320 : Causes eye irritation. H400 : Very toxic to aquatic life.

H410 : Very toxic to aquatic life with long lasting effects.H411 : Toxic to aquatic life with long lasting effects.

Full text of other abbreviations

CA AB OEL : Canada. Alberta, Occupational Health and Safety Code (table

2: OEL)

CA BC OEL : Canada. British Columbia OEL

CA ON OEL : Ontario Table of Occupational Exposure Limits made under

the Occupational Health and Safety Act.

CA QC OEL : Québec. Regulation respecting occupational health and

safety, Schedule 1, Part 1: Permissible exposure values for

airborne contaminants

CA AB OEL / TWA : 8-hour Occupational exposure limit
CA AB OEL / STEL : 15-minute occupational exposure limit

CA BC OEL / TWA : 8-hour time weighted average CA BC OEL / STEL : short-term exposure limit

CA ON OEL / TWA : Time-Weighted Average Limit (TWA)
CA ON OEL / STEL : Short-Term Exposure Limit (STEL)
CA QC OEL / TWAEV : Time-weighted average exposure value

CA QC OEL / STEV : Short-term exposure value

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

Further information

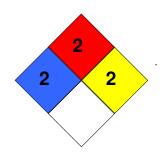
HMIS Classification : Health hazard: 2

Chronic Health Hazard: /

Flammability: 2 Physical hazards: 1

NFPA Classification : Health hazard: 2

Fire Hazard: 2 Reactivity Hazard: 2



Notification status explanation

TCSI Taiwan Chemical Substance Inventory (TCSI)

TSCA United States TSCA Inventory

AICS Australia Inventory of Chemical Substances (AICS)

DSL Canadian Domestic Substances List (DSL)

ENCS Japan. ENCS - Existing and New Chemical Substances Inventory

ISHL Japan. ISHL - Inventory of Chemical Substances
KECI Korea. Korean Existing Chemicals Inventory (KECI)

PICCS Philippines Inventory of Chemicals and Chemical Substances

(PICCS)

IECSC China. Inventory of Existing Chemical Substances in China (IECSC)

NZIoC New Zealand. Inventory of Chemical Substances

Further information

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