SAFETY DATA SHEET

TAMIFLU(R) Capsules 45 mg

SECTION 1. IDENTIFICATION

Product name : TAMIFLU(R) Capsules 45 mg
Product code : RO064-0796/F05

Manufacturer or supplier’s details
Company name of supplier : Genentech, Inc.
Address : 1 DNA Way
South San Francisco, CA 94080
USA
Telephone : 001-(650) 225-1000
E-mail address : info.sds@roche.com
Emergency telephone number : US Chemtrec phone (800)-424-9300

Recommended use of the chemical and restrictions on use
Recommended use : Formulated pharmaceutical active substance
Restrictions on use : For professional users only.

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200)
Eye irritation : Category 2A
Skin sensitization : Category 1
Carcinogenicity : Category 1A

GHS label elements
Hazard pictograms :

Signal Word : Danger
Hazard Statements : H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
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.
P264 Wash skin thoroughly after handling.
P272 Contaminated work clothing must not be allowed out of the workplace.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:
P302 + P352 IF ON SKIN: Wash with plenty of soap and 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.
P308 + P313 IF exposed or concerned: Get medical advice/ attention.
P333 + P313 IF skin irritation or rash occurs: Get medical advice/ attention.
P337 + P313 IF eye irritation persists: Get medical advice/ attention.
P363 Wash contaminated clothing 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

Substance / Mixture : Mixture

Components

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>CAS-No.</th>
<th>Concentration (% w/w)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oseltamivir phosphate</td>
<td>204255-11-8</td>
<td>43.0</td>
</tr>
<tr>
<td>Gelatins</td>
<td>9000-70-8</td>
<td>&lt;= 26.5</td>
</tr>
<tr>
<td>Amylodextrin</td>
<td>9005-84-9</td>
<td>20.3</td>
</tr>
<tr>
<td>Talc (Mg3H2(SiO3)4)</td>
<td>14807-96-6</td>
<td>3.6</td>
</tr>
<tr>
<td>2-Pyrrolidinone, 1-ethenyl-, homopolymer</td>
<td>9003-39-8</td>
<td>2.9</td>
</tr>
<tr>
<td>Titanium oxide (TiO2)</td>
<td>13463-67-7</td>
<td>&lt;= 1.5</td>
</tr>
<tr>
<td>Croscarmellose sodium</td>
<td>74811-65-7</td>
<td>1.5</td>
</tr>
<tr>
<td>sodium octadecyl fumarate</td>
<td>4070-80-8</td>
<td>0.7</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice : Move out of dangerous area.
Show this material safety data sheet to the doctor in attendance.
Do not leave the victim unattended.
If inhaled:
Move to fresh air.
If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.

In case of skin contact:
If on skin, rinse well with water.

In case of eye contact:
Immediately flush eye(s) with plenty of water.
Remove contact lenses.
Protect unharmed eye.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.

If swallowed:
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.
Rinse mouth with water.

Most important symptoms and effects, both acute and delayed:
May cause an allergic skin reaction.
Causes serious eye irritation.
May cause cancer.

Notes to physician:
The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

SECTION 5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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 products:
In case of fire hazardous decomposition products may be produced such as:
Nitrogen oxides (NOx)
Oxides of phosphorus
Carbon oxides

Further information:
Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

Special protective equipment for fire-fighters:
Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES
SAFETY DATA SHEET

TAMIFLU(R) Capsules 45 mg

Personal precautions, protective equipment and emergency procedures:
- Use personal protective equipment.
- Avoid dust formation.
- Avoid breathing dust.

Environmental precautions:
- Prevent product from entering drains.
- Prevent further leakage or spillage if safe to do so.
- Local authorities should be advised if significant spillages cannot be contained.

Methods and materials for containment and cleaning up:
- Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion:
- Avoid dust formation.
- Provide appropriate exhaust ventilation at places where dust is formed.

Advice on safe handling:
- Avoid formation of respirable particles.
- Do not breathe vapors/dust.
- Avoid exposure - obtain special instructions before use.
- Avoid contact with skin and eyes.
- For personal protection see section 8.
- Smoking, eating and drinking should be prohibited in the application area.
- Dispose of rinse water in accordance with local and national regulations.
- Persons susceptible to skin sensitization problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.

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.
- Electrical installations / working materials must comply with the technological safety standards.

Further information on storage conditions:
- See label, package insert or internal guidelines

Storage temperature:
- Protected from heat and light
- Protect from moisture.

Further information on storage stability:
- No decomposition if stored and applied as directed.

Packaging material:
- Suitable material: Blister packages
- Suitable material: Plastic container of HDPE
SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredients with workplace control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters / Permissible concentration</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oseltamivir phosphate</td>
<td>204255-11-8</td>
<td>IOEL</td>
<td>0.2 mg/m$^3$</td>
<td>Roche Industrial Hygiene Committee (RIHC)</td>
</tr>
<tr>
<td>Talc (Mg3H2(SiO3)4)</td>
<td>14807-96-6</td>
<td>TWA (Dust)</td>
<td>20 Million particles per cubic foot</td>
<td>OSHA Z-3</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable)</td>
<td>2 mg/m$^3$</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable particulate matter)</td>
<td>2 mg/m$^3$</td>
<td>ACGIH</td>
</tr>
<tr>
<td>Titanium oxide (TiO2)</td>
<td>13463-67-7</td>
<td>TWA (total dust)</td>
<td>15 mg/m$^3$</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Total dust)</td>
<td>10 mg/m$^3$</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA</td>
<td>10 mg/m$^3$ (Titanium dioxide)</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

Predicted No Effect Concentration (PNEC):

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Environmental Compartment</th>
<th>Value</th>
<th>Remarks:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oseltamivir phosphate</td>
<td>Surface waters</td>
<td>100 µg/l</td>
<td>Based on chronic data</td>
</tr>
</tbody>
</table>

Engineering measures: No data available

Personal protective equipment

Hand protection

In case of contact through splashing:

- Material: Nitrile rubber
- Break through time: > 30 min
- Glove thickness: > 0.11 mm

In case of full contact:

- Material: butyl-rubber
- Break through time: > 480 min
- Glove thickness: > 0.4 mm

Remarks: Wear appropriate protective gloves to prevent skin contact. Replace torn or punctured gloves promptly.

Eye protection

- Eye wash bottle with pure water
- Tightly fitting safety goggles
- Wear face-shield and protective suit for abnormal processing
Skin and body protection: Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: capsules

Color: light yellow, gray

Odor: Not applicable

Odor Threshold: Not applicable

pH: Not applicable

Melting point/range: No data available

Boiling point/boiling range: No data available

Evaporation rate: No data available

Self-ignition: 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: Not applicable

Relative density: No data available

Solubility(ies)
  Water solubility: No data available
  Solubility in other solvents: No data available

Partition coefficient: n-octanol/water: No data available

Autoignition temperature: No data available
Decomposition temperature : No data available

Viscosity
  Viscosity, dynamic : Not applicable
  Viscosity, kinematic : Not applicable

SECTION 10. STABILITY AND REACTIVITY

Reactivity : No dangerous reaction known under conditions of normal use.
Chemical stability : Stable under normal conditions.
Possibility of hazardous reactions : No decomposition if stored and applied as directed.
Conditions to avoid : No data available
Incompatible materials : No data available
Hazardous decomposition products : No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Product:
Acute inhalation toxicity : Acute toxicity estimate: 118.57 mg/l
  Exposure time: 4 h
  Test atmosphere: dust/mist
  Method: Calculation method

Components:
Oseltamivir phosphate:
Acute oral toxicity : MNLD (Maximum No Lethal Dose) (Rat): > 2,000 mg/kg
  Assessment: The component/mixture is minimally toxic after single ingestion.

Titanium oxide (TiO2):
Acute oral toxicity : LD50 (Rat): > 5,000 mg/kg
  Method: OECD Test Guideline 425
Acute inhalation toxicity : LC50 (Rat): > 6.82 mg/l
  Exposure time: 4 h
  Test atmosphere: dust/mist
Acute dermal toxicity : LD50 (Rabbit): > 5,000 mg/kg
**Skin corrosion/irritation**
Not classified based on available information.

**Product:**
Remarks : May cause skin irritation and/or dermatitis.

**Components:**

**Talc (Mg3H2(SiO3)4):**
Remarks : This information is not available.

**Titanium oxide (TiO2):**
Species : Rabbit
Method : OECD Test Guideline 404
Result : No skin irritation

**Serious eye damage/eye irritation**
Causes serious eye irritation.

**Product:**
Remarks : May cause irreversible eye damage.

**Components:**

**Oseltamivir phosphate:**
Species : Rabbit
Result : Eye irritation
Method : OECD Test Guideline 405
GLP : yes
Remarks : May cause irreversible eye damage.

**Talc (Mg3H2(SiO3)4):**
Remarks : This information is not available.

**Titanium oxide (TiO2):**
Species : Rabbit
Result : No eye irritation
Method : OECD Test Guideline 405

**Respiratory or skin sensitization**

**Skin sensitization**
May cause an allergic skin reaction.

**Respiratory sensitization**
Not classified based on available information.

**Product:**
Remarks : Causes sensitization.
Components:

Oseltamivir phosphate:
Species: Guinea pig
Assessment: May cause sensitization by skin contact.
Method: OECD Test Guideline 406
GLP: yes

Titanium oxide (TiO2):
Species: Guinea pig
Assessment: Does not cause skin sensitization.
Method: OECD Test Guideline 406

Germ cell mutagenicity
Not classified based on available information.

Components:

Oseltamivir phosphate:
Genotoxicity in vitro: Result: negative
Remarks: In vitro tests did not show mutagenic effects

Carcinogenicity
May cause cancer.
IARC Group 2B: Possibly carcinogenic to humans
Titanium oxide (TiO2) 13463-67-7

OSHA
No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP
Known to be human carcinogen
Talc (Mg3H2(SiO3)4) 14807-96-6
(Silica, Crystalline (Respirable Size))

Reproductive toxicity
Not classified based on available information.

Components:

Oseltamivir phosphate:
Effects on fertility: Species: laboratory animal
Result: Animal testing did not show any effects on fertility.

Effects on fetal development: Species: laboratory animal
Result: No teratogenic effects.

STOT-single exposure
Not classified based on available information.

Components:

Oseltamivir phosphate:
Assessment: The substance or mixture is not classified as specific target
Talc (Mg₃H₂(SiO₃)₄):
Assessment : The substance or mixture is not classified as specific target organ toxicant, single exposure.

STOT-repeated exposure
Not classified based on available information.

Components:
Oseltamivir phosphate:
Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Talc (Mg₃H₂(SiO₃)₄):
Assessment : The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Repeated dose toxicity

Components:
Oseltamivir phosphate:

Species : Rat
NOAEL : 250 mg/kg
Application Route : Oral
Exposure time : 4 Weeks
GLP : yes
Remarks : Subchronic toxicity

Aspiration toxicity
Not classified based on available information.

Components:
Oseltamivir phosphate:
No data available

Talc (Mg₃H₂(SiO₃)₄):
No data available

Further information

Components:
Oseltamivir phosphate:
Remarks : Not phototoxic (in vitro)
Ecotoxicity

Components:

Oseltamivir phosphate:
Toxicity to fish: LC50 (Cyprinus carpio (Carp)): > 100 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates: EC50 (Daphnia magna (Water flea)): 33 mg/l
Exposure time: 48 h
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants:
ErC50 (Selenastrum capricornutum (green algae)): 463 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

EyC50 (Selenastrum capricornutum (green algae)): 59 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

NOErC (Selenastrum capricornutum (green algae)): 46 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

NOEyC (Selenastrum capricornutum (green algae)): 10 mg/l
Exposure time: 96 h
Method: OECD Test Guideline 201

Toxicity to microorganisms: (activated sludge): 30 mg/l
Exposure time: 14 d
Method: OECD Test Guideline 302C
GLP: no
Remarks: no adverse influence on substrate biodegradation

Talc (Mg3H2(SiO3)4):
Toxicity to fish: LC50 (Danio rerio (zebra fish)): > 100,000 mg/l
Exposure time: 24 h

Ecotoxicology Assessment

Acute aquatic toxicity: This product has no known ecotoxicological effects.
Chronic aquatic toxicity: This product has no known ecotoxicological effects.
Toxicity Data on Soil: Not expected to adsorb on soil.
Other organisms relevant to the environment: No data available

Titanium oxide (TiO2):
Toxicity to fish: LC50 (Pimephales promelas (fathead minnow)): > 1,000 mg/l
Exposure time: 96 h
Test Type: static test

LC50 (Cyprinodon variegatus (sheepshead minnow)): > 10,000 mg/l
Exposure time: 96 h
Test Type: semi-static test
Method: OECD Test Guideline 203

Toxicity to daphnia and other aquatic invertebrates
LC50 (Daphnia magna (Water flea)): > 1,000 mg/l
Exposure time: 48 h
Test Type: static test
Method: OECD Test Guideline 202

Toxicity to algae/aquatic plants
EC50 (Pseudokirchneriella subcapitata (green algae)): > 100 mg/l
Exposure time: 72 h
Test Type: static test
Method: OECD Test Guideline 201

EC50 (Skeletonema costatum (marine diatom)): > 10,000 mg/l
Exposure time: 72 h
Method: ISO 10253

NOEC (Skeletonema costatum (marine diatom)): 5,600 mg/l
Exposure time: 72 h
Method: ISO 10253

Ecotoxicology Assessment
Toxicity Data on Soil : Not expected to adsorb on soil.
Other organisms relevant to the environment : No data available

Persistence and degradability
Components:
Oseltamivir phosphate:
Biodegradability : Biodegradation: 3.0 %
Exposure time: 28 d
Method: OECD Test Guideline 301B

Biodegradation: 2.8 %
Exposure time: 14 d
Method: OECD Test Guideline 301B

Titanium oxide (TiO2):
Biodegradability : Remarks: Not applicable
Bioaccumulative potential

Components:

Oseltamivir phosphate:
Partition coefficient: n-octanol/water: log Pow: 0.36
pH: 7.4

Talc:
Partition coefficient: n-octanol/water: Remarks: No data available

Titanium dioxide:
Partition coefficient: n-octanol/water: Remarks: No data available

Mobility in soil
No data available

Other adverse effects

Product:
Ozone-Depletion Potential: Regulation: 40 CFR Protection of Environment; Part 82
Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lasting effects.

Components:

Talc (Mg3H2(SiO3)4):
Adsorbed organic bound halogens (AOX): Remarks: Not applicable

Additional ecological information: No data available

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 chemical or used container.
Send to a licensed waste management company.
Can be disposed as waste water, when in compliance with
Contaminated packaging: Empty remaining contents. Dispose of as unused product. 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
Not regulated as a dangerous good

IATA-DGR
Not regulated as a dangerous good

IMDG-Code
Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not applicable

Domestic regulation

49 CFR
Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

CERCLA Reportable Quantity
This material does not contain any components with a CERCLA RQ.

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
- Respiratory or skin sensitization
- Carcinogenicity
- Serious eye damage or eye irritation

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.

Clean Air Act
This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).
This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCMI Intermediate or Final VOC's (40 CFR 60.489).

**Clean Water Act**

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A. This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3. This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307. This product does not contain any priority pollutants related to the U.S. Clean Water Act.

**US State Regulations**

**Massachusetts Right To Know**

- Talc (Mg3H2(SiO3)4) 14807-96-6
- Titanium oxide (TiO2) 13463-67-7

**Pennsylvania Right To Know**

- Oseltamivir phosphate 204255-11-8
- Gelatins 9000-70-8
- Amylodextrin 9005-84-9
- Talc (Mg3H2(SiO3)4) 14807-96-6
- Titanium oxide (TiO2) 13463-67-7

**Maine Chemicals of High Concern**

Product does not contain any listed chemicals.

**Vermont Chemicals of High Concern**

Product does not contain any listed chemicals.

**Washington Chemicals of High Concern**

Product does not contain any listed chemicals.

**California Prop. 65**

WARNING: This product can expose you to chemicals including Titanium oxide (TiO2), which is/are known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

**California List of Hazardous Substances**

- Talc (Mg3H2(SiO3)4) 14807-96-6
  - 2-Pyrrolidinone, 1-ethenyl-, homopolymer 9003-39-8

**California Permissible Exposure Limits for Chemical Contaminants**

- Talc (Mg3H2(SiO3)4) 14807-96-6
- Titanium oxide (TiO2) 13463-67-7

**California Regulated Carcinogens**

- Talc (Mg3H2(SiO3)4) 14807-96-6

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

- **AIIC**: Not in compliance with the inventory
- **DSL**: This product contains the following components that are not on the Canadian DSL nor NDSL.
  - Oseltamivir phosphate
SAFETY DATA SHEET

TAMIFLU(R) Capsules 45 mg

Version 1.3
Revision Date: 10-18-2021
Date of last issue: 02-20-2020
Date of first issue: 03-31-2017

Crocarmellose sodium
sodium octadecyl fumarate

NZIoC: Not in compliance with the inventory
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: Not in compliance with the inventory
TCSI: Not in compliance with the inventory
TSCA: Product contains substance(s) not listed on TSCA inventory.
TECI: Not in compliance with the 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

NFPA 704:

HMIS® IV:

HEALTH

FLAMMABILITY

PHYSICAL HAZARD

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)
<table>
<thead>
<tr>
<th>Substance Name</th>
<th>Unit</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>TAMIFLU(R) Capsules 45 mg</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NIOSH REL : USA. NIOSH Recommended Exposure Limits
OSHA P0 : USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
OSHA Z-1 : USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
OSHA Z-3 : USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
ACGIH / TWA : 8-hour, time-weighted average
NIOSH REL / TWA : Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek
OSHA P0 / TWA : 8-hour time weighted average
OSHA Z-1 / TWA : 8-hour time weighted average
OSHA Z-3 / TWA : 8-hour time weighted average

AIIIC - 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; KECl - 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 Obervable 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; ROQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance 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

The GHS classification for skin irritation and/or sensitization of the pure ingredients causes a corresponding GHS classification for the whole formulation. In view of the nature of the formulated product (film-coated tablet, capsule, etc.) an over-interpretation of the potential hazard is possible.

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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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