SECTION 1. IDENTIFICATION

Product name : KLONOPIN(R) Tablets 0.5 mg
Product code : RO005-4023/F01

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)
Carcinogenicity : Category 1A

GHS label elements
Hazard pictograms :

Signal Word : Danger
Hazard Statements : 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.
P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
Response:
P308 + P313 IF exposed or concerned: Get medical advice/
SAFETY DATA SHEET

KLONOPIN(R) Tablets 0.5 mg

Version 2.2
Revision Date: 10-14-2021
Date of last issue: 10-07-2021
Date of first issue: 12-04-2015

attention.

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>Clonazepam</td>
<td>1622-61-3</td>
<td>0.33</td>
</tr>
<tr>
<td>Starch</td>
<td>9005-25-8</td>
<td>72.6</td>
</tr>
<tr>
<td>Lactose-monohydrate</td>
<td>10039-26-6</td>
<td>26.7</td>
</tr>
<tr>
<td>Talc (Mg3H2(SiO3)4)</td>
<td>14807-96-6</td>
<td>0.22</td>
</tr>
<tr>
<td>Octadecanoic acid, magnesium salt</td>
<td>557-04-0</td>
<td>0.06</td>
</tr>
<tr>
<td>(2:1)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>non hazardous compounds</td>
<td>Not Assigned</td>
<td>&gt; 0.05</td>
</tr>
</tbody>
</table>

SECTION 4. FIRST AID MEASURES

General advice : 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.
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 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.
- **Specific hazards during fire fighting**: No information available.
- **Hazardous combustion products**: Carbon oxides
- **Further information**: Standard procedure for chemical fires. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
- **Special protective equipment for fire-fighters**: Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions, protective equipment and emergency procedures**: Avoid exposure. Avoid dust formation.
- **Environmental precautions**: Local authorities should be advised if significant spillages cannot be contained.
- **Methods and materials for containment and cleaning up**: Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

SECTION 7. HANDLING AND STORAGE

- **Advice on protection against fire and explosion**: Provide appropriate exhaust ventilation at places where dust is formed.
- **Advice on safe handling**: For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area.
- **Conditions for safe storage**: Electrical installations / working materials must comply with the technological safety standards.
- **Further information on storage conditions**: See label, package insert or internal guidelines
- **Materials to avoid**: No materials to be especially mentioned.
- **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: Polyethylene bag in metal drum, Plastic container of HDPE, glass bottles, Blister packages

### 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>Starch</td>
<td>9005-25-8</td>
<td>TWA</td>
<td>10 mg/m³</td>
<td>ACGIH</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable)</td>
<td>5 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (total)</td>
<td>10 mg/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (total dust)</td>
<td>15 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (respirable fraction)</td>
<td>5 mg/m³</td>
<td>OSHA Z-1</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Total dust)</td>
<td>15 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (respirable dust fraction)</td>
<td>5 mg/m³</td>
<td>OSHA P0</td>
</tr>
<tr>
<td>Clonazepam</td>
<td>1622-61-3</td>
<td>IOEL</td>
<td>0.01 mg/m³</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/m³</td>
<td>NIOSH REL</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TWA (Respirable particulate matter)</td>
<td>2 mg/m³</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>
</tr>
</thead>
<tbody>
<tr>
<td>Clonazepam</td>
<td>Surface waters</td>
<td>6.92 µg/l</td>
</tr>
</tbody>
</table>

Remarks: Based on acute data

Engineering measures: No data available
SAFETY DATA SHEET

KLONOPIN(R) Tablets 0.5 mg

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date:</th>
<th>Date of last issue:</th>
<th>Date of first issue:</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.2</td>
<td>10-14-2021</td>
<td>10-07-2021</td>
<td>12-04-2015</td>
</tr>
</tbody>
</table>

**Personal protective equipment**

**Respiratory protection**: No personal respiratory protective equipment normally required.

**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**: Safety glasses

**Skin and body protection**: Protective suit

**Protective measures**: Instruction of employees recommended

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

---

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

**Appearance**: tablet

**Color**: yellow, orange

**Odor**: Not applicable

**Odor Threshold**: Not applicable

**pH**: No data available

**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

VISCOITY

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
Stable under recommended storage conditions. No hazards to be specially mentioned.

Incompatible materials
No data available

SECTION 11. TOXICOLOGICAL INFORMATION

Acute toxicity
Not classified based on available information.

Components:

Clonazepam:
Acute oral toxicity
LD50 Oral (Rat): > 15,000 mg/kg

Starch:
Acute oral toxicity
Acute toxicity estimate: > 5,001 mg/kg
Method: Expert judgment

Acute inhalation toxicity
Acute toxicity estimate: > 30 mg/l
### Klonopin Tablets 0.5 mg

<table>
<thead>
<tr>
<th>Test atmosphere: dust/mist</th>
<th>Method: Expert judgment</th>
</tr>
</thead>
</table>

#### Acute dermal toxicity
- Acute toxicity estimate: > 5,001 mg/kg  
- Method: Expert judgment

#### Lactose-monohydrate:
- Acute oral toxicity:  
  - LD50 Oral (Rat): > 10,000 mg/kg

#### Octadecanoic acid, magnesium salt (2:1):
- Acute oral toxicity:  
  - LD50 Oral (Rat): > 2,000 mg/kg

#### Non hazardous compounds:
- Acute oral toxicity:  
  - Acute toxicity estimate: > 5,001 mg/kg  
  - Method: Expert judgment
- Acute inhalation toxicity:  
  - Acute toxicity estimate: > 30 mg/l  
  - Test atmosphere: dust/mist  
  - Method: Expert judgment
- Acute dermal toxicity:  
  - Acute toxicity estimate: > 5,001 mg/kg  
  - Method: Expert judgment

#### Skin corrosion/irritation
- Not classified based on available information.

### Components:

#### Clonazepam:
- Remarks:  
  - This information is not available.

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

### Serious eye damage/eye irritation
- Not classified based on available information.

### Respiratory or skin sensitization

#### Skin sensitization
- Not classified based on available information.
Respiratory sensitization
Not classified based on available information.

Germ cell mutagenicity
Not classified based on available information.

Components:

Clonazepam:
Germ cell mutagenicity - Assessment: The substance has been tested for mutagenicity and other types of genotoxic effects in in vitro and in vivo experiments and is evaluated as being non-mutagenic.

Carcinogenicity
May cause cancer.

Components:

Clonazepam:
Remarks: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Lactose-monohydrate:
Remarks: No ingredient of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

IARC
No ingredient 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.

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:

Clonazepam:
Effects on fetal development: Species: Rat
Application Route: Oral
Dose: <= 40 mg/kg bw/day
Result: No teratogenic effects., No embryotoxic effects.

STOT-single exposure
Not classified based on available information.
SAFETY DATA SHEET

KLONOPIN(R) Tablets 0.5 mg

Components:

Clonazepam:
Target Organs: Central nervous system
Assessment: May cause drowsiness or dizziness.

Starch:
Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

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

Octadecanoic acid, magnesium salt (2:1):
Assessment: The substance or mixture is not classified as specific target organ toxicant, single exposure.

non hazardous compounds:
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:

Starch:
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.

Octadecanoic acid, magnesium salt (2:1):
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

non hazardous compounds:
Assessment: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Aspiration toxicity
Not classified based on available information.

Components:

Clonazepam:
No data available
Starch:
No data available

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

Octadecanoic acid, magnesium salt (2:1):
No data available

**non hazardous compounds:**
No data available

### SECTION 12. ECOLOGICAL INFORMATION

**Ecotoxicity**

**Components:**

**Clonazepam:**
- **Toxicity to fish:**
  - LC0 (Oncorhynchus mykiss (rainbow trout)): 1,000 mg/l
  - Exposure time: 96 h

- **Toxicity to daphnia and other aquatic invertebrates:**
  - EC50 (Daphnia magna (Water flea)): 30.3 mg/l
  - Exposure time: 48 h

- **Toxicity to algae/aquatic plants:**
  - ErC50 (Desmodesmus subspicatus (green algae)): > 240 mg/l
    - Exposure time: 72 h
    - Method: OECD Test Guideline 201
    - GLP: no
    - Remarks: nominal concentration
  
    - EyC50 (Desmodesmus subspicatus (green algae)): 6.92 mg/l
      - Exposure time: 72 h
      - Method: OECD Test Guideline 201
      - GLP: no
      - Remarks: nominal concentration
  
    - ErC10 (Desmodesmus subspicatus (green algae)): 3.90 mg/l
      - Exposure time: 72 h
      - Method: OECD Test Guideline 201
      - GLP: no
      - Remarks: nominal concentration

    - NOEC (Desmodesmus subspicatus (green algae)): < 2.46 mg/l
      - Exposure time: 72 h
      - Method: OECD Test Guideline 201
      - GLP: no
      - Remarks: nominal concentration
SAFETY DATA SHEET

KLONOPIN(R) Tablets 0.5 mg

Starch:
Toxicity to fish : LC50: > 100 mg/l
Exposure time: 96 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

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

Octadecanoic acid, magnesium salt (2:1):

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

non hazardous compounds:
Toxicity to fish : LC50 (Fish): > 100 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): > 100 mg/l
Exposure time: 48 h

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

**Persistence and degradability**

**Components:**

**Clonazepam:**
Biodegradability: Biodegradation: 0 
Exposure time: 21 d
GLP: no

**Bioaccumulative potential**

**Components:**

**Clonazepam:**
Partition coefficient: n-octanol/water: log Pow: 2.41 (77 °F / 25 °C)
ph: 7.4

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

**Lactose-monohydrate:**
Bioaccumulation: Remarks: No bioaccumulation is to be expected (log Pow <= 4).
Partition coefficient: n-octanol/water: log Pow: -5.03

**Talc (Mg3H2(SiO3)4):**
Partition coefficient: n-octanol/water: Remarks: No data available

**Octadecanoic acid, magnesium salt (2:1):**
Partition coefficient: n-octanol/water: log Pow: 0.8
Method: OECD Test Guideline 107

**non hazardous compounds:**
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).

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: Can be disposed as waste water, when in compliance with local regulations.
- Contaminated packaging: 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.
SAFETY DATA SHEET

KLONOPIN(R) Tablets 0.5 mg

Version 2.2
Revision Date: 10-14-2021
Date of last issue: 10-07-2021
Date of first issue: 12-04-2015

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
Carcinogenicity

SARA 313
This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

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
Starch 9005-25-8

Pennsylvania Right To Know
Starch 9005-25-8
Lactose-monohydrate 10039-26-6

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 Clonazepam, which is/are known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

California Permissible Exposure Limits for Chemical Contaminants
Starch 9005-25-8

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.

    non hazardous compounds

NZIoC : On the inventory, or 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**
SAFETY DATA SHEET

KLONOPIN(R) Tablets 0.5 mg

Version 2.2
Revision Date: 10-14-2021
Date of last issue: 10-07-2021
Date of first issue: 12-04-2015

NFPA 704:

HMIS® IV:

Full text of other abbreviations

ACGIH : USA. ACGIH Threshold Limit Values (TLV)
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

AIIC - 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; NFPA - National Fire Protection Association; OSHA - Occupational Safety and Health Administration; PEL - Permissible Exposure Limit; TWA - Time-weighted average
Revision Date : 10-14-2021

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.

US / Z8 / 2010