## 1. IDENTIFICATION

**Product code:** D1052  
**Product Name:** DIGOXIN, USP  

### Other means of identification

**Synonyms:**  
- Digitalis glycoside  
- Chloroformic digitalin  
- Cordioxil  
- Davoxin  
- Digacin  
- Digoksyna (Polish)  
- Digosin  
- Digoxigenin-tridigitoxosid (German)  
- Digoxine  
- Dilanacin  
- Homolle's digitalin  
- Lanicor  
- Lanocardin  
- Lanoxin  
- Rougoxin  

**CAS #:** 20830-75-5  
**RTECS #** IH6125000  
**CI#:** Not available

### Recommended use of the chemical and restrictions on use

**Recommended use:** Medication.  
**Uses advised against:** No information available

**Supplier:** Spectrum Chemical Mfg. Corp  
14422 South San Pedro St.  
Gardena, CA 90248  
(310) 516-8000  

**Order Online At:** [https://www.spectrumchemical.com](https://www.spectrumchemical.com)

**Emergency telephone number** Chemtrec 1-800-424-9300  
**Contact Person:** Martin LaBenz (West Coast)  
**Contact Person:** Ibad Tirmiz (East Coast)

## 2. HAZARDS IDENTIFICATION

### Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<table>
<thead>
<tr>
<th>Hazard</th>
<th>Category</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity - Oral</td>
<td>2</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>2</td>
</tr>
</tbody>
</table>

**Product code:** D1052  
**Product name:** DIGOXIN, USP
Serious eye damage/eye irritation Category 2A
Carcinogenicity Category 2
Specific target organ toxicity (single exposure) Category 1

Label elements

Danger

Hazard statements
Fatal if swallowed
Causes skin irritation
Causes serious eye irritation
Suspected of causing cancer
Causes damage to organs

Hazards not otherwise classified (HNOC)
Not Applicable

Other hazards
Not available

Precautionary Statements - Prevention
Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not breathe dust/fume/gas/mist/vapors/spray
Wear protective gloves/protective clothing/eye protection/face protection

Precautionary Statements - Response
Specific treatment (see .? on this label)
Specific treatment (see .? on this label)
IF exposed: Call a POISON CENTER or doctor/physician
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
IF ON SKIN: Wash with plenty of soap and water
If skin irritation occurs: Get medical advice/attention
Take off contaminated clothing and wash before reuse
IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
Rinse mouth

Precautionary Statements - Storage
Store locked up

Precautionary Statements - Disposal
Dispose of contents/container to an approved waste disposal plant

Product code: D1052 Product name: DIGOXIN, USP
3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Weight %</th>
<th>Trade Secret</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digoxin</td>
<td>20830-75-5</td>
<td>100 *</td>
<td></td>
</tr>
<tr>
<td>20830-75-5</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

First aid measures

General Advice: Poison information centers in each State capital city can provide additional assistance for scheduled poisons (13 1126).

Skin Contact: Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes. Get medical attention. If skin irritation persists, call a physician.

Eye Contact: Flush eyes with water for 15 minutes. Get medical attention.

Inhalation: Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. WARNING! It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled or ingested material is toxic, infectious or corrosive. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Immediate medical attention is required.

Ingestion: Fatal if swallowed. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediate medical attention is required. Call a physician or Poison Control Center immediately.

Most important symptoms and effects, both acute and delayed

Symptoms


Indication of any immediate medical attention and special treatment needed

Notes to Physician: Treat symptomatically

Protection of first-aiders

First-Aid Providers: Avoid exposure to blood or body fluids. Wear gloves and other necessary protective clothing. Dispose of contaminated clothing and equipment as bio-hazardous waste

5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical. Carbon dioxide (CO2). Water spray. Foam.

Unsuitable Extinguishing Media: No information available.

Specific hazards arising from the chemical

Hazardous Combustion Products: Carbon monoxide; carbon dioxide

Specific hazards: May be combustible at high temperatures

Special Protective Actions for Firefighters

Specific Methods: No information available.
Special Protective Equipment for Firefighters: As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions: Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Use personal protective equipment. Remove all sources of ignition.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Prevent entry into waterways, sewers, basements or confined areas.

Methods and material for containment and cleaning up

Methods for containment Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

Methods for cleaning up Use appropriate tools to put the spilled solid in a suitable waste disposal container. Clean contaminated surface thoroughly.

7. HANDLING AND STORAGE

Precautions for safe handling

Technical Measures/Precautions: Provide sufficient air exchange and/or exhaust in work rooms. Keep away from incompatible materials.

Safe Handling Advice Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Avoid dust formation. Do not breathe vapours/dust. Do not ingest. Do not smoke. Keep away from heat and sources of ignition. Handle in accordance with good industrial hygiene and safety practice.

Conditions for safe storage, including any incompatibilities

Technical Measures/Storage Conditions: Keep container tightly closed in a dry and well-ventilated place. Store at room temperature in the original container. Store away from incompatible materials. Store in a segregated and approved area.


8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

National occupational exposure limits

United States

<table>
<thead>
<tr>
<th>Components</th>
<th>OSHA</th>
<th>NIOSH</th>
<th>ACGIH</th>
<th>AIHA WHEEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digoxin 20830-75-5</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Canada

<table>
<thead>
<tr>
<th>Components</th>
<th>Alberta</th>
<th>British Columbia</th>
<th>Ontario</th>
<th>Quebec</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digoxin 20830-75-5</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

Product code: D1052  Product name: DIGOXIN, USP
Australia and Mexico

<table>
<thead>
<tr>
<th>Components</th>
<th>Australia</th>
<th>Mexico</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digoxin 20830-75-5</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

**Appropriate engineering controls**

**Engineering measures to reduce exposure:** Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.

**Individual protection measures, such as personal protective equipment**

**Personal Protective Equipment**

- **Eye protection:** Safety glasses with side-shields or Goggles.
- **Skin and body protection:** Long sleeved clothing. Chemical resistant apron. Gloves.
- **Respiratory protection:** Wear respirator with dust filter. Be sure to use an approved/certified respirator or equivalent.
- **Hygiene measures:** Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product.

**9. PHYSICAL AND CHEMICAL PROPERTIES**
9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: Solid

Appearance: Crystals. Crystalline powder.

Color: White

Odor: Odorless

Taste: Bitter

Formula: C41H64O14

Molecular/Formula weight: 780.94

Flammability: No information available

Flash point (°C): No data available

Flash Point Tested according to: No information available

Autoignition Temperature (°C/°F): No information available

Lower Explosion Limit (%): No information available

Upper Explosion Limit (%): No information available

Melting point/range(°C/°F): 230-265°C/ 446-509°F

Boiling point/range(°C/°F): No information available

Decomposition temperature(°C/°F): No information available

Bulk density: No information available

Density (g/cm³): No information available

Specific gravity: No information available

Vapor pressure @ 20°C (kPa): No information available

Evaporation rate: No information available

Vapor density: No information available

VOC content (g/L): No information available

Odor threshold (ppm): No information available

Partition coefficient (n-octanol/water): No information available

Viscosity: No information available

Miscibility: No information available

Solubility:
Practically insoluble in water
Practically insoluble in Ether
Practically insoluble in Acetone
Practically insoluble in Chloroform
Practically insoluble in Ethyl Acetate
Soluble in pyridine
Soluble in dilute alcohol

10. STABILITY AND REACTIVITY

Reactivity
Reactive with oxidizing agents
Reactive with acids

Chemical stability
Stable under recommended storage conditions.

Possibility of Hazardous Reactions:
Hazardous polymerization does not occur

Conditions to avoid:

Incompatible Materials:
Oxidizing agents. Acids.

Hazardous decomposition products:
Carbon monoxide. Carbon dioxide. When heated to decomposition it emits acrid smoke and irritating fumes.

Other Information
Corrosivity: No information available

Special Remarks on Corrosivity: No information available

Product code: D1052
Product name: DIGOXIN, USP
11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Principal Routes of Exposure:
Eyes. Inhalation. Ingestion.

Acute Toxicity

Component Information

Digoxin - 20830-75-5

|
| LD50/oral/rat = 28270 µg/kg Oral LD50 Rat |
| LD50/oral/mouse = 17.780 mg/kg |
| LD50/dermal/rat = No information available |
| LD50/dermal/rabbit = No information available |
| LC50/inhalation/rat = No information available |
| LC50/inhalation/mouse = No information available |
| Other LD50 or LC50 information = 3.5 mg/kg Oral LD50 Guinea pig |
| 0.2 mg/kg Oral LD50 Cat |

Product Information

LD50/oral/rat =
VALUE- Acute Tox Oral = 28.270mg/kg

LD50/oral/mouse =
Value - Acute Tox Oral = 17.780mg/kg

LD50/dermal/rabbit
VALUE-Acute Tox Dermal = No information available

LD50/dermal/rat
VALUE -Acute Tox Dermal = No information available

LC50/inhalation/rat
VALUE-Vapor = No information available
VALUE-Gas = No information available
VALUE-Dust/Mist = No information available

LC50/inhalation/mouse
VALUE-Vapor = No information available
VALUE - Gas = No information available
VALUE - Dust/Mist = No information available

Symptoms

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye irritation.

Inhalation May cause respiratory tract irritation.
Ingestion  
Fatal if swallowed. May cause abdominal pain, nausea, vomiting, diarrhea. May cause loss of appetite. May cause fatigue. May affect behavior/central nervous system (confusion). May affect behavior/central nervous system (muscle weakness, convulsions). It may affect behavior/central nervous system (irritability). May affect behavior/central nervous system (headache, lethargy, dizziness, confusion, syncope, seizures). It may affect behavior/central nervous system (drowsiness). May cause fainting. May cause vision disturbances. It may affect the heart (cardiomyopathy including myocardial infarction, arrhythmias). May affect cardiovascular system (blood pressure, pulse rates).

Aspiration hazard  
No information available

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Chronic Toxicity  
Prolonged or repeated exposure may affect the heart. Chronic exposure may cause cardiac arrhythmias (irregular heartbeat), slow heart beat), heart damage. Prolonged or repeated ingestion may cause loss of appetite. Prolonged or repeated ingestion may cause weight loss.

Sensitization:  
No information available

Mutagenic Effects:  
No information available

Carcinogenic effects:  
Suspected of causing cancer. Possibly carcinogenic to humans.

<table>
<thead>
<tr>
<th>Components</th>
<th>IARC</th>
<th>ACGIH - Carcinogens</th>
<th>NTP</th>
<th>OSHA HCS - Carcinogens</th>
<th>Australia - Notifiable Carcinogenic Substances</th>
<th>Australia - Prohibited Carcinogenic Substances</th>
</tr>
</thead>
</table>

IARC (International Agency for Research on Cancer)

Reproductive toxicity  
No data is available

Reproductive Effects:  
No information available

Developmental Effects:  
No information available

Teratogenic Effects:  
No information available

Specific Target Organ Toxicity

STOT - single exposure  
No information available

Target Organs:  
Heart.

STOT - repeated exposure  
Heart.
13. DISPOSAL CONSIDERATIONS

Disposal Methods

Waste from residues / unused products:
Waste must be disposed of in accordance with Federal, State and Local regulation.

Contaminated packaging:
Empty containers should be taken for local recycling, recovery or waste disposal

<table>
<thead>
<tr>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Digoxin</td>
<td>None</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
</tbody>
</table>

14. TRANSPORT INFORMATION

DOT
- UN-No: UN2811
- Proper Shipping Name: Toxic solids, organic, n.o.s. (digoxin)
- Hazard Class: 6.1
- Subsidiary Risk: No information available
- Packing Group: II
- ERG No: 154
- Marine Pollutant: No data available
- DOT RQ (lbs): No information available
- Symbol(s): G

TDG (Canada)
- UN-No: UN2811
- Proper Shipping Name: Toxic solid, organic, n.o.s.
- Hazard Class: 6.1
- Subsidiary Risk: No information available
- Packing Group: II
- Description: No information available

ADR
- UN-No: UN2811
- Proper Shipping Name: Toxic solid, organic, n.o.s.
- Hazard Class: 6.1
- Packing Group: II
- Subsidiary Risk: No information available
- Classification Code: No information available
- Description: No information available
- CEFIC Tremcard No: No information available

IMO / IMDG
- UN-No: UN2811
- Proper Shipping Name: Toxic solid, organic, n.o.s.
- Hazard Class: 6.1
- Subsidiary Risk: No information available
- Packing Group: II
- Description: No information available

Product code: D1052  Product name: DIGOXIN, USP
14. TRANSPORT INFORMATION

IMDG Page: No information available
Marine Pollutant: No information available
EMS: F-A
MFAG: No information available
Maximum Quantity: No information available

RID
UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Classification Code: No information available
Description: No information available

ICAO
UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
Description: No information available

IATA
UN-No: UN2811
Proper Shipping Name: Toxic solid, organic, n.o.s.
Hazard Class: 6.1
Subsidiary Risk: No information available
Packing Group: II
ERG Code: 6L
Description: No information available

15. REGULATORY INFORMATION

International Inventories

<table>
<thead>
<tr>
<th>Components</th>
<th>U.S. TSCA</th>
<th>KOREA KECL (PICCS)</th>
<th>Japan ENCS</th>
<th>CHINA</th>
<th>Australia (AICS)</th>
<th>EINECS-No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Digoxin</td>
<td>Present</td>
<td>Not present</td>
<td>Present</td>
<td>Not present</td>
<td>Not present</td>
<td>Present 244-068-1</td>
</tr>
</tbody>
</table>

U.S. Regulations

Digoxin

- Massachusetts RTK: Present
- New Jersey RTK Hazardous Substance List: 2337
- New Jersey (EHS) List: 2337 10 lb TPQ
- New Jersey - Discharge Prevention - List of Hazardous Substances: Present
- Pennsylvania RTK: Environmental hazard
- Pennsylvania RTK - Environmental Hazard List: Present
- Pennsylvania RTK - Special Hazardous Substances: Present
= 1 lb RQ


Chemicals Known to the State of California to Cause Cancer:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Chemicals Known to the State of California to Cause Reproductive Toxicity:
This product does not contain a chemical requiring a warning under California Prop. 65. (See table below)

Product code: D1052 | Product name: DIGOXIN, USP
Components | Carcinogen | Developmental Toxicity | Male Reproductive Toxicity | Female Reproductive Toxicity:
--- | --- | --- | --- | ---
Digoxin | Not Listed | Not Listed | Not Listed | Not Listed

CERCLA/SARA

| Components | CERCLA - Hazardous Substances and their Reportable Quantities | Section 302 Extremely Hazardous Substances and TPQs | Section 302 Extremely Hazardous Substances and RQs | Section 313 - Chemical Category | Section 313 - Reporting de minimis |
--- | --- | --- | --- | --- | ---
Digoxin | None | 10 lb lower TPQ 10000 lb upper TPQ 10 | None | None | None

U.S. TSCA

| Components | TSCA Section 5(a)2 - Chemicals With Significant New Use Rules (SNURS) | TSCA 8(d) - Health and Safety Reporting |
--- | --- | ---
Digoxin | Not Applicable | Not Applicable

Canada

WHMIS hazard class:
D1A  Very toxic materials

Canada Controlled Products Regulation:
This product has been classified according to the hazard criteria of the CPR (Controlled Products Regulation) and the MSDS contains all of the information required by the CPR.

Inventory

| Components | Canada (DSL) | Canada (NDSL) |
--- | --- | ---
Digoxin | Present | Not Listed

EU Classification

R-phrase(s)
R25 - Toxic if swallowed.

S-phrase(s)
S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

| Components | Classification | Concentration Limits: | Safety Phrases |
--- | --- | --- | ---
Digoxin | No information | |

The product is classified in accordance with Annex VI to Directive 67/548/EEC

Product code: D1052  Product name: DIGOXIN, USP
Indication of danger:

T - Toxic

16. OTHER INFORMATION

Preparation Date: 07/02/2015
Revision Date: 07/02/2015
Prepared by: Sonia Owen

Disclaimer:

All chemicals may pose unknown hazards and should be used with caution. This Safety Data Sheet (SDS) applies only to the material as packaged. If this product is combined with other materials, deteriorates, or becomes contaminated, it may pose hazards not mentioned in this SDS. The physical properties reported in this SDS are obtained from the literature and do not constitute product specifications. Information contained herein does not constitute a warranty, whether expressed or implied, as to the safety, merchantability or fitness of the goods for a particular purpose. Spectrum Chemicals & Laboratory Products, Inc. assumes no responsibility for results obtained or for incidental or consequential damages, including lost profits, arising from the use of these data. No warranty against infringement of any patent, copyright or trademark is made or implied. It shall be the user's responsibility to develop proper methods of handling and personal protection based on the actual conditions of use. While this SDS is based on technical data judged to be reliable, Spectrum assumes no responsibility for the completeness or accuracy of the information contained herein.

End of Safety Data Sheet