

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Warfarin

Product Number : 35011

Brand : Deanpestcontrol

Product Use : For laboratory research purposes.

Supplier : Dean Pest Control Group Ltd. Co.

Co.5FLOOR,INTER-CHINA BUILDING,  
NO.116DINGMAOQIAOROAD,ZHENJIANG,  
JIANGSU,REPUBLIC OF CHINA

Manufacturer: Dean Pest Control Group Ltd.

Co.5FLOOR,INTER-CHINA BUILDING,  
NO.116DINGMAOQIAOROAD,ZHENJIANG,  
JIANGSU,REPUBLIC OF CHINA

Telephone : 86-511-84416352

Fax : 86-511-84441036

Emergency Phone # (For: 86-511-84416352

both supplier and

manufacturer)

Preparation Information : Dean Pest Control Group Ltd. Co.

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

### Target Organs

Blood

### WHMIS Classification

D1A Very Toxic Material Causing Immediate and  
Serious Toxic Effects

Highly toxic by ingestion  
Highly toxic by skin absorption  
Highly toxic by inhalation

### GHS Classification

Acute toxicity, Oral (Category 1), H300

Acute toxicity, Dermal (Category 4), H312

Reproductive toxicity (Category 1A), H360

Specific target organ toxicity - repeated exposure (Category 1), H372

Chronic aquatic toxicity (Category 3), H412

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

### GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H300

Fatal if swallowed



H312	Harmful in contact with skin.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H412	Harmful to aquatic life with long lasting effects.
Precautionary statement(s)	
P264	Wash hands thoroughly after handling.
P273	Avoid release to the environment.
P280	Wear protective gloves/ protective clothing.
P302 + P350	IF ON SKIN: Gently 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.
P310	Immediately call a POISON CENTER or doctor/ physician.

### HMIS Classification

**Health hazard:** 4

**Chronic Health Hazard:** \*

**Flammability:** 0

**Physical hazards:** 0

### Potential Health Effects

<b>Inhalation</b>	May be fatal if inhaled. May cause respiratory tract irritation.
<b>Skin</b>	May be fatal if absorbed through skin. May cause skin irritation.
<b>Eyes</b>	May cause eye irritation.
<b>Ingestion</b>	May be fatal if swallowed.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula : C<sub>31</sub>H<sub>23</sub>BrO<sub>3</sub>

Molecular Weight : 523.42 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
<b>Warfarin</b>			
81-81-2	201-377-6	607-056-00-0	<=100%

## 4. FIRST AID MEASURES

### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

### In case of skin contact

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.



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### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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## **5. FIREFIGHTING MEASURES**

### **Conditions of flammability**

Not flammable or combustible.

### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

### **Special protective equipment for firefighters**

Wear self contained breathing apparatus for fire fighting if necessary.

### **Hazardous combustion products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen bromide gas  
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen bromide gas

### **Explosion data - sensitivity to mechanical impact**

no data available

### **Explosion data - sensitivity to static discharge**

no data available

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## **6. ACCIDENTAL RELEASE MEASURES**

### **Personal precautions**

Wear respiratory protection. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.  
Evacuate personnel to safe areas. Avoid breathing dust.

### **Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

### **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.

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## **7. HANDLING AND STORAGE**

### **Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.  
Provide appropriate exhaust ventilation at places where dust is formed.

### **Conditions for safe storage**

Keep container tightly closed in a dry and well-ventilated place.

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

### **Personal protective equipment**

#### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100



(US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

#### Full contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

#### Splash contact

Material: Nitrile rubber

Minimum layer thickness: 0.11 mm

Break through time: 480 min

Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail [sales@kcl.de](mailto:sales@kcl.de), test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

### Eye protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### Skin and body protection

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

### Hygiene measures

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

### Specific engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	solid
Colour	no data available



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### Safety data

pH	no data available
Melting point/freezing point	no data available
Boiling point	no data available
Flash point	no data available
Ignition temperature	no data available
Auto-ignition temperature	no data available
Lower explosion limit	no data available
Upper explosion limit	no data available
Vapour pressure	no data available
Density	no data available
Water solubility	no data available
Partition coefficient: n-octanol/water	no data available
Relative vapour density	no data available
Odour	no data available
Odour Threshold	no data available
Evaporation rate	no data available

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## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Possibility of hazardous reactions

no data available

### Conditions to avoid

no data available

### Materials to avoid

Strong oxidizing agents

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen bromide gas

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen bromide gas

Other decomposition products - no data available

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## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Oral LD50

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LD50 Oral - rat - 1.6 mg/kg

LD50 Dermal - Rat - 1.400 mg/kg

**Other information on acute toxicity**

no data available

**Skin corrosion/irritation**

Skin - rabbit -

**Serious eye damage/eye irritation**

Eyes - rabbit - Mild eye irritation

**Respiratory or skin sensitisation**

no data available

**Germ cell mutagenicity**

no data available

**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.

ACGIH:No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

**Reproductive toxicity**

no data available

**Teratogenicity**

no data available

**Specific target organ toxicity - single exposure (Globally Harmonized System)**

no data available

**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**

Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard**

no data available

**Potential health effects**

**Inhalation** May be fatal if inhaled. May cause respiratory tract irritation.

**Ingestion** May be fatal if swallowed.

**Skin** May be fatal if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

**Signs and Symptoms of Exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Synergistic effects**

no data available

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#### Additional Information

RTECS: GN4934750

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## 12. ECOLOGICAL INFORMATION

### Toxicity

Toxicity to fish LC50 - Oncorhynchus mykiss (rainbow trout) - > 16 mg/l - 96,0 h

### Persistence and degradability

no data available

### Bioaccumulative potential

no data available

### Mobility in soil

no data available

### PBT and vPvB assessment

no data available

### Other adverse effects

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

Very toxic to aquatic life.

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## 13. DISPOSAL CONSIDERATIONS

### Product

Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

### Contaminated packaging

Dispose of as unused product.

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## 14. TRANSPORT INFORMATION

### DOT (US)

UN number: 2811 Class: 6.1 Packing group: I

Proper shipping name: Toxic solids, organic, n.o.s. (Warfarin)

Marine pollutant: No

Poison Inhalation Hazard: No

### IMDG

UN number: 2811 Class: 6.1 Packing group: I EMS-No: F-A, S-A

Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (Warfarin)

Marine pollutant: Marine pollutant

### IATA

UN number: 2811 Class: 6.1 Packing group: I

Proper shipping name: Toxic solid, organic, n.o.s. (Warfarin)

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IATA Passenger: Not permitted for transport

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### 15. REGULATORY INFORMATION

#### WHMIS Classification

D1A Very Toxic Material Causing Immediate and

Serious Toxic Effects

Highly toxic by ingestion

Highly toxic by skin absorption

Highly toxic by inhalation

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

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### 16. OTHER INFORMATION

#### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product.