



**Leache Chem Ltd**  
Add: Economic Development Zone of Feixiang District,  
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## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Version 5.0 Revision Date 21.04.2020

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### 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1 Product identifiers

Product name : 5,5-Dimethylhydantoin

CAS-No. : 77-71-4

#### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Manufacture of substances

#### 1.3 Details of the supplier of the safety data sheet

Company : LEACHE CHEM LTD.

Economic Development Zone of Feixiang District, Handan hebei China

Tel: +86 310 7092106

Fax: +86 310 7092108

E-mail address : [info@leachechem.com](mailto:info@leachechem.com)

#### 1.4 Emergency telephone number

Emergency Phone # : +86 310 7092106

### 2. HAZARDS IDENTIFICATION

#### 2.1 Classification of the substance or mixture

Not a dangerous substance according to GHS.

This substance is not classified as dangerous according to Directive 67/548/EEC.

#### 2.2 Label elements

The product does not need to be labelled in accordance with EC directives or respective national laws.

#### 2.3 Other hazards - none

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1 Substances

Synonyms : 5,5-Dimethylhydantoin

Formula : C<sub>5</sub>H<sub>8</sub>N<sub>2</sub>O<sub>2</sub>

Component	Concentration
5,5-Dimethylhydantoin	*
CAS No. 77-71-4	*
EC No. 201-051-3	*

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#### **4. FIRST AID MEASURES**

##### **4.1 Description of first aid measures**

###### **If inhaled**

Move victim to fresh air. If you feel unwell, seek medical advice.

###### **In case of skin contact**

Thoroughly wash skin with soap and water. In case of skin irritation, consult a physician.

###### **In case of eye contact**

Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart.

In case of troubles or persistent symptoms, consult an ophthalmologist.

###### **If swallowed**

Rinse mouth immediately and drink plenty of water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention.

##### **4.2 Most important symptoms and effects, both acute and delayed**

No data available.

##### **4.3 Indication of immediate medical attention and special treatment needed**

Treat symptomatically.

#### **5. FIRE-FIGHTING MEASURES**

##### **5.1 Extinguishing media**

###### **Suitable extinguishing media**

Use water spray, alcohol-resistant foam, extinguishing powder or carbon dioxide.

##### **5.2 Special hazards arising from the substance or mixture**

Nitrogen oxides (NO<sub>x</sub>), carbon monoxide and carbon dioxide.

##### **5.3 Precautions for fire-fighters**

Wear self contained breathing apparatus for fire fighting if necessary.

##### **5.4 Further information**

Cool endangered containers with water jetspray.

#### **6. ACCIDENTAL RELEASE MEASURES**

##### **6.1 Personal precautions, protective equipment and emergency procedures**

Avoid generation of dust. Do not breathe dust. Provide adequate ventilation.

##### **6.2 Environmental precautions**

Do not allow to enter into ground-water, surface water or drains.

##### **6.3 Methods and materials for containment and cleaning up**

Take up mechanically, placing in appropriate containers for disposal.

##### **6.4 Reference to other sections**

Refer additionally to chapter 8 and 13.

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## **7. HANDLING AND STORAGE**

### **7.1 Precautions for safe handling**

Avoid generation of dust. In case of dust: Provide adequate ventilation, and local exhaust as needed..

Take precautionary measures against static discharge.

### **7.2 Conditions for safe storage, including any incompatibilities**

Store container tightly closed in a dry and cool place. Protect from heat and direct sunlight.

### **7.3 Specific end uses**

no data available

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

### **8.1 Control parameters**

Components with workplace control parameters.

### **8.2 Exposure controls**

#### **Respiratory protection:**

In case of dust: Particulates filter P1 according to EN 143.

#### **Eye/face protection**

Tightly sealed goggles according to EN 166.

#### **Hand protection**

Protective gloves according to EN 374.

Glove material: Nitrile rubber

Breakthrough time: >480 min.

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

#### **Body Protection**

Wear suitable protective clothing.

#### **General protection and hygiene measures:**

Change contaminated clothing. Wash hands before breaks and after work.

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

### **9.1 Information on basic physical and chemical properties**

a) Appearance Form: solid, crystalline

Colour: white or similar to white

b) Odour: no data available

c) Odour Threshold: no data available

d) Ph: no data available

e) Melting/freezing point Melting point/range: 174 - 181 °C - lit.

f) Initial boiling point and boiling range: 312.53 °C - lit.

g) Flash point: no data available

h) Evaporation rate: no data available

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- i) Flammability (solid, gas): no data available
- j) Upper/lower flammability or explosive limits: no data available
- k) Vapour pressure: no data available
- l) Vapour density: no data available
- m) Relative density: no data available
- n) Water solubility: no data available
- o) Partition coefficient octanol/ water: no data available
- q) Decomposition temperature: no data available
- r) Viscosity: no data available
- s) Explosive properties: no data available
- t) Oxidizing properties: no data available

## 9.2 Other safety information

Molecular weight: 128,13 g/mol

Surface tension: 71.6 mN/m at 21 °C

Not surface active

Dissociation constant pKa: 9.19 at 23.7 °C

## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Refer to 10.3

### 10.2 Chemical stability

Product is stable under normal storage conditions.

### 10.3 Possibility of hazardous reactions

No dangerous reactions are known.

### 10.4 Conditions to avoid

No data available

### 10.5 Incompatible materials

None known

### 10.6 Hazardous decomposition products

In case of fire may be liberated: Nitrogen oxides (NOx) carbon monoxide and carbon dioxide.

## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute toxicity

LD50 Oral - rat - 7800 mg/kg

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Lack of data.

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Acute toxicity (inhalative): Lack of data.  
Skin corrosion/irritation: Based on available data, the classification criteria are not met.  
Rabbit: Not an irritant (OECD 404)  
Eye damage/irritation: Based on available data, the classification criteria are not met.  
Rabbit: Not an irritant (OECD 405)  
Sensitisation to the respiratory tract: Lack of data.  
Skin sensitisation: Lack of data.  
Germ cell mutagenicity/Genotoxicity: Lack of data.  
Carcinogenicity: Based on available data, the classification criteria are not met.  
NOEL Rat, female: 379 mg/kg bw/d  
Developmental toxicity: NOAEL Rat, oral:  $\geq 1000$  mg/kg bw/d  
Effects on or via lactation: Lack of data  
Specific target organ toxicity (single exposure): Lack of data.  
Specific target organ toxicity (repeated exposure): Lack of data.  
Aspiration hazard: Lack of data.

## 12. ECOLOGICAL INFORMATION

### 12.1 Toxicity

#### Aquatic toxicity:

Algae toxicity: EC<sub>50</sub> *Pseudokirchneriella subcapitata*:  $> 1000$  mg/L/96h (OECD 201). Inhibition of growth rate.  
Daphnia toxicity: EC<sub>50</sub> *Daphnia magna*: 6200 mg/L/48h (EPA-FIFRA).  
NOEC *Daphnia magna*: 71 mg/L/21d (OECD 202).  
Fish toxicity: LC<sub>50</sub> *Oncorhynchus mykiss*:  $> 972$  mg/L/96h (US-EPA).  
NOEC *Phoxinus phoxinus* (fathead minnow): 14 mg/L/33d (FIFRA).

### 12.2 Persistence and degradability

#### Further details:

Abiotic degradation: stable in water.  
Half-life time  $t_{1/2}$ :  $> 360$  d (pH 5-9, EPA-FIFRA).  
Biodegradation: 94 %/19d;  $> 95$  %/42d (OECD 302 A). Biodegradable.  
Formation of CO<sub>2</sub>: 88 %/28d (OECD 301 B). Readily biodegradable.  
Bioconcentration factor (BCF):  $< 2 / 42$  d (*Lepomis macrochirus* (bluegill) - OECD 305).

#### Effects in sewage plants:

EC<sub>50</sub> Bacteria in activated sludge  $> 1000$  mg/L/3h (OECD 209).

### 12.3 Bioaccumulative potential

Partition coefficient n-octanol/water: at 22 °C:  $-0.475 \log P(o/w)$

Bio-accumulation is not to be expected ( $\log P(o/w) < 1$ ).

### 12.4 Mobility in soil

no data available

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#### **12.5 Results of PBT and vPvB assessment**

no data available

#### **12.6 Other adverse effects**

Do not allow to penetrate into soil, waterbodies or drains.

### **13. DISPOSAL CONSIDERATIONS**

#### **13.1 Waste treatment methods Product**

Dispose of waste according to applicable legislation.

#### **Contaminated packaging**

Dispose of waste according to applicable legislation. Non-contaminated packages may be recycled.

### **14. TRANSPORT INFORMATION**

#### **14.1 UN-Number**

not applicable

#### **14.2 UN proper shipping name**

Not restricted

#### **14.3 Transport hazard class(es)**

not applicable

#### **14.4 Packaging group**

not applicable

#### **14.5 Environmental hazards**

No

#### **14.6 Special precautions for users**

No dangerous good in sense of these transport regulations.

### **15. REGULATORY INFORMATION**

#### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

no data available

#### **15.2 Chemical Safety Assessment**

no data available

### **16. OTHER INFORMATION**

#### **Further information**

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