

## 1 Identification of substance:

### Product details:

**Product name:** Diallyl maleate

**Stock number:** L03867

### Manufacturer/Supplier:

SPARCHEM

159, Ashoka Shopping Center

LT Marg

Mumbai 400 001

Emergency Phone: 9867502723

CHEMTREC: 00 91 9867502723

Web Site:www.sparchem.com

**Information Department:** Health, Safety and Environmental Department

### Emergency information:

During normal hours the Health, Safety and Environmental Department. After normal hours call Chemtrec at SPARCHEM.

## 2 Composition/Data on components:

### Chemical characterization:

**Description:** (CAS#)

Diallyl maleate (CAS# 999-21-3)

**Identification number(s):**

**EINECS Number:** 213-658-0

## 3 Hazards identification

### Hazard description:



Xn Harmful

### Information pertaining to particular dangers for man and environment

R 21/22 Harmful in contact with skin and if swallowed.

R 36/38 Irritating to eyes and skin.

### Classification system

**HMS ratings (scale 0-4)**

(Hazardous Materials Identification System)

HEALTH	2	Health (acute effects) = 2
FIRE	1	Flammability = 1
REACTIVITY	1	Reactivity = 1

### GHS label elements



Warning

3.1/4 - Harmful if swallowed.

3.1/4 - Harmful in contact with skin.

3.2/2 - Causes skin irritation.

3.3/2A - Causes serious eye irritation.

### Prevention:

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/protective clothing/eye protection/face protection.

### Response:

**IF SWALLOWED:** Call a POISON CENTER or doctor/physician if you feel unwell.

**IF ON SKIN:** Wash with plenty of soap and water.

**IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Call a POISON CENTER or doctor/physician if you feel unwell.

Specific treatment (see on this label).

Specific measures (see on this label).

Rinse mouth.

If skin irritation occurs: Get medical advice/attention.

If eye irritation persists: Get medical advice/attention.

Take off contaminated clothing and wash before reuse.

Wash contaminated clothing before reuse.

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**Disposal:**

Dispose of contents/container in accordance with local/regional/national/international regulations.

#### 4 First aid measures

**After inhalation**

Supply fresh air. If required, provide artificial respiration. Keep patient warm.

Seek immediate medical advice.

**After skin contact**

Immediately wash with water and soap and rinse thoroughly.

Seek immediate medical advice.

**After eye contact**

Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing**                      Seek immediate medical advice.

#### 5 Fire fighting measures

**Suitable extinguishing agents**

Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

**Special hazards caused by the material, its products of combustion or resulting gases:**

In case of fire, the following can be released:

Carbon monoxide and carbon dioxide

**Protective equipment:**

Wear self-contained respirator.

Wear fully protective impervious suit.

#### 6 Accidental release measures

**Person-related safety precautions:**

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

**Measures for environmental protection:**

Do not allow material to be released to the environment without proper governmental permits.

**Measures for cleaning/collecting:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

**Additional information:**

See Section 7 for information on safe handling

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

#### 7 Handling and storage

**Handling**

**Information for safe handling:**

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

**Information about protection against explosions and fires:**

Keep ignition sources away.

**Storage**

**Requirements to be met by storerooms and receptacles:**

No special requirements.

**Information about storage in one common storage facility:**

Store away from oxidizing agents.

**Further information about storage conditions:**

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

#### 8 Exposure controls and personal protection

**Additional information about design of technical systems:**

Properly operating chemical fume hood designed for hazardous chemicals and having an average face velocity of at least 100 feet per minute.

**Components with limit values that require monitoring at the workplace:**

Not required.

**Additional information:**                      No data

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**Personal protective equipment**

**General protective and hygienic measures**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Remove all soiled and contaminated clothing immediately.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

**Breathing equipment:** Use suitable respirator when high concentrations are present.

**Protection of hands:**

Impervious gloves

Check protective gloves prior to each use for their proper condition.

**Material of gloves**

The selection of suitable gloves not only depends on the material, but also on quality.

Quality will vary from manufacturer to manufacturer.

**Eye protection:** Safety glasses

**Body protection:** Protective work clothing.

## 9 Physical and chemical properties:

**General Information**

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless
<b>Odor:</b>	Not determined
<b>Change in condition</b>	
<b>Melting point/Melting range:</b>	-47°C (-53°F)
<b>Boiling point/Boiling range:</b>	109-110°C (228-230°F) (3 mmHg)
<b>Sublimation temperature / start:</b>	Not determined
<b>Flash point:</b>	130°C (266°F)
<b>Ignition temperature:</b>	Not determined
<b>Decomposition temperature:</b>	Not determined
<b>Danger of explosion:</b>	Product does not present an explosion hazard.
<b>Explosion limits:</b>	
<b>Lower:</b>	Not determined
<b>Upper:</b>	Not determined
<b>Vapor pressure:</b>	Not determined
<b>Density at 20°C (68°F):</b>	1.072 g/cm <sup>3</sup>
<b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Not miscible or difficult to mix

## 10 Stability and reactivity

**Thermal decomposition / conditions to be avoided:**

Decomposition will not occur if used and stored according to specifications.

**Materials to be avoided:** Oxidizing agents

**Dangerous reactions** No dangerous reactions known

**Dangerous products of decomposition:** Carbon monoxide and carbon dioxide

## 11 Toxicological information

**Acute toxicity:**

**LD/LC50 values that are relevant for classification:**

Oral LD50 300 mg/kg (rat)

Irritation of skin moderate 500 mg (rabbit)

Irritation of eyes severe 500 mg (rabbit)

**Primary irritant effect:**

**on the skin:** Irritant to skin and mucous membranes.

**on the eye:** Irritating effect.

**Sensitization:** No sensitizing effects known.

**Subacute to chronic toxicity:**

Other than potential irritation (see above), no information on illness or injury to humans from acute or chronic exposure to this product is available.

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**Additional toxicological information:**

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

Danger through skin absorption.

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

## 12 Ecological information:

**General notes:**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Do not allow material to be released to the environment without proper governmental permits.

## 13 Disposal considerations

**Product:**

**Recommendation** Consult state, local or national regulations to ensure proper disposal.

**Uncleaned packagings:**

**Recommendation:** Disposal must be made according to official regulations.

## 14 Transport information

**DOT regulations:**



<b>Hazard class:</b>	6.1
<b>Identification number:</b>	UN2810
<b>Packing group:</b>	III
<b>Proper shipping name (technical name):</b>	TOXIC LIQUID, ORGANIC, N.O.S. (Diallyl maleate)
<b>Label</b>	6.1

**Land transport ADR/RID (cross-border)**



<b>ADR/RID class:</b>	6.1 (T1) Toxic substances
<b>Danger code (Kemler):</b>	60
<b>UN-Number:</b>	2810
<b>Packaging group:</b>	III
<b>Description of goods:</b>	2810 TOXIC LIQUID, ORGANIC, N.O.S. (Diallyl maleate)

**Maritime transport IMDG:**



<b>IMDG Class:</b>	6.1
<b>UN Number:</b>	2810
<b>Label</b>	6.1
<b>Packaging group:</b>	III
<b>EMS Number:</b>	F-A,S-A
<b>Marine pollutant:</b>	No
<b>Proper shipping name:</b>	TOXIC LIQUID, ORGANIC, N.O.S. (Diallyl maleate)

**Air transport ICAO-TI and IATA-DGR:**



<b>ICAO/IATA Class:</b>	6.1
<b>UN/ID Number:</b>	2810

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Printing date 08/07/2009

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**Product name: Diallyl maleate**

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<b>Label</b>	6.1
<b>Packaging group:</b>	III
<b>Proper shipping name:</b>	TOXIC LIQUID, ORGANIC, N.O.S. (Diallyl maleate)
<b>UN "Model Regulation":</b>	UN2810, TOXIC LIQUID, ORGANIC, N.O.S., 6.1, III

## 15 Regulations

### Product related hazard informations:

#### Hazard symbols:

Xn Harmful

#### Risk phrases:

21/22 Harmful in contact with skin and if swallowed.  
 36/38 Irritating to eyes and skin.

#### Safety phrases:

23 Do not breathe fumes  
 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 36/37 Wear suitable protective clothing and gloves.

#### National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.  
 All components of this product are listed on the Canadian Domestic Substances List (DSL).

#### Information about limitation of use:

For use only by technically qualified individuals.

## 16 Other information:

### Disclaimer:

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