# **Material Safety Data Sheet**

Version 4.0 Revision Date 02/27/2010 Print Date 02/14/2012

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Dibenzo-18-crown-6

Product Number : 158399 Brand : Aldrich

Company : Sigma-Aldrich

3050 Spruce Street SAINT LOUIS MO 63103

USA

Telephone : +1 800-325-5832 Fax : +1 800-325-5052 Emergency Phone # : (314) 776-6555

### 2. HAZARDS IDENTIFICATION

# **Emergency Overview**

#### **OSHA Hazards**

Irritant

# GHS Label elements, including precautionary statements

Pictogram



Signal word Warning

Hazard statement(s)

H303 May be harmful if swallowed. H319 Causes serious eye irritation.

Precautionary statement(s)

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/eye protection/face protection.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing.

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P337 + P313 If eye irritation persists: Get medical advice/attention.

**HMIS Classification** 

Health hazard: 2 Flammability: 0 Physical hazards: 0

**NFPA Rating** 

Health hazard: 2
Fire: 0
Reactivity Hazard: 0

### **Potential Health Effects**

InhalationMay be harmful if inhaled. Causes respiratory tract irritation.SkinMay be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

**Ingestion** May be harmful if swallowed.

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

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Synonyms : 6,7,9,10,17,18,20,21-Octahydrodibenzo[b,k][1,4,7,10,13,16]hexaoxacyclooctadecene

2,3,11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene

Formula :  $C_{20}H_{24}O_6$ Molecular Weight : 360.4 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
2,3,11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene			
14187-32-7	238-041-3	-	-

# 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. Consult a physician.

# In case of eye contact

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

#### If swallowed

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

#### 5. FIRE-FIGHTING MEASURES

# Suitable extinguishing media

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

### Special protective equipment for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

## 6. ACCIDENTAL RELEASE MEASURES

### Personal precautions

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation.

# **Environmental precautions**

Do not let product enter drains.

# Methods and materials for containment and cleaning up

Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

### 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. Normal measures for preventive fire protection.

#### Conditions for safe storage

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

Keep in a dry place.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

# Personal protective equipment

# **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

# **Hand protection**

Handle with gloves.

# Eye protection

Safety glasses with side-shields conforming to EN166

# Skin and body protection

Choose body protection according to the amount and concentration of the dangerous substance at the work place.

# Hygiene measures

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

# **Appearance**

Form powder Colour white

# Safety data

pH no data available

Melting point 162 - 164 °C (324 - 327 °F) - lit.

Boiling point no data available
Flash point no data available
Ignition temperature no data available
Lower explosion limit no data available
Upper explosion limit no data available
Water solubility no data available

# 10. STABILITY AND REACTIVITY

# Chemical stability

Stable under recommended storage conditions.

#### Conditions to avoid

no data available

### Materials to avoid

Strong oxidizing agents, Strong acids

# **Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

# 11. TOXICOLOGICAL INFORMATION

### **Acute toxicity**

LD50 Oral - rat - 2,600 mg/kg

Remarks: Behavioral:Tremor. Behavioral:Convulsions or effect on seizure threshold. Nutritional and Gross Metabolic:Weight loss or decreased weight gain.

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# Skin corrosion/irritation

# Serious eye damage/eye irritation

Eyes - rabbit - Moderate eye irritation

### Respiratory or skin sensitization

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.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or

anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a

carcinogen or potential carcinogen by OSHA.

# Reproductive toxicity

no data available

# Specific target organ toxicity - single exposure (GHS)

no data available

# Specific target organ toxicity - repeated exposure (GHS)

no data available

# **Aspiration hazard**

no data available

### Potential health effects

**Inhalation** May be harmful if inhaled. Causes respiratory tract irritation.

**Ingestion** May be harmful if swallowed.

**Skin** May be harmful if absorbed through skin. Causes skin irritation.

**Eyes** Causes eye irritation.

# Signs and Symptoms of Exposure

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

### **Additional Information**

RTECS: HP5386000

#### 12. ECOLOGICAL INFORMATION

#### **Toxicity**

no data available

# 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

no data available

# 13. DISPOSAL CONSIDERATIONS

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#### **Product**

Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material.

# Contaminated packaging

Dispose of as unused product.

#### 14. TRANSPORT INFORMATION

### DOT (US)

Not dangerous goods

#### **IMDG**

Not dangerous goods

#### IATA

Not dangerous goods

# 15. REGULATORY INFORMATION

# **OSHA Hazards**

Irritant

#### **DSL Status**

This product contains the following components listed on the Canadian NDSL list. All other components are on the Canadian DSL list.

CAS-No.

2,3,11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene

14187-32-7

#### SARA 302 Components

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

# **SARA 313 Components**

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.

#### SARA 311/312 Hazards

Acute Health Hazard

# **Massachusetts Right To Know Components**

No components are subject to the Massachusetts Right to Know Act.

#### Pennsylvania Right To Know Components

CAS-No.

Revision Date

2,3,11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene

14187-32-7

**New Jersey Right To Know Components** 

CAS-No.

Revision Date

2,3,11,12-Dibenzo-1,4,7,10,13,16-hexaoxacyclooctadeca-2,11-diene

14187-32-7

### California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

# **16. OTHER INFORMATION**

# **Further information**

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