

## Material Safety Data Sheet

Version 1.0

Revision Date 11/20/2017

### 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : Phorbol 12-myristate 13-acetate

Product Number : CN010995

Brand : PhytoUnico

Company : Chengdu Push Bio-technology Co., Ltd.  
No.8 West Wuke second road, Wuhou District, Chengdu City, Sichuan  
Province, China

Telephone : 86-28-85370565-215

Fax : 86-28-85370565-777

Emergency Phone # : 86-28-85370565-215

### 2. HAZARDS IDENTIFICATION

#### OSHA Hazards

Irritant.

#### GHS Label elements, including precautionary statements

Pictogram



Signal word **Warning**

Hazard statement(s)

H315 Causes skin irritation.

Precautionary statement(s)

P264 Wash skin thoroughly after handling.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

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Website: <http://www.push-herbchem.com>

P302+P352	IF ON SKIN: wash with plenty of water.
P321	Specific treatment (see supplemental first aid instructions on this label).
P332 + P313	If skin irritation occurs: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P501	Dispose of contents/container to an approved waste disposal plant.

#### HMIS Classification

Health hazard: 2

Flammability: 0

Physical hazards: 0

#### NFPA Rating

Health hazard: 2

Fire: 0

Reactivity Hazard: 0

#### Potential Health Effects

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

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

**Eyes** May causes eye irritation.

**Ingestion** May be harmful if swallowed.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical Name:** Phorbol 12-myristate 13-acetate

**CAS#:** 16561-29-8

**Formula:**  $C_{36}H_{56}O_8$

**Molecular Weight:** 616.83

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### 4. FIRST AID MEASURES

#### General advice

Consult a doctor.

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 doctor.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a doctor.

**In case of eye contact**

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

**If swallowed**

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

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**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.

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**6. ACCIDENTAL RELEASE MEASURES**

**Personal precautions**

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Evacuate personnel to safe areas.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. 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.

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**7. HANDLING AND STORAGE**

### **Precautions for safe handling**

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.

Recommended storage temperature: - 20°C

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 full-face particle respirator type N99(US) or type P2 (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.

#### **Eye protection**

Face shield and safety glasses.

#### **Skin and body protection**

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

### **Hygiene measures**

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

## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance:

Light yellow solid

### Safe data

pH	no data available
Melting point	67-70 °C (acetone)
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
Solubility	Methanol, Acetontrile, DMSO

## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions.

### Conditions to avoid

no data available

### Materials to avoid

Strong oxidizing agents.

### Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity data

Type of test	Route	Species	Dose
LD <sub>50</sub>	Intravenous	Rodent - mouse	309 ug/kg

### Other multiple dose toxicity data

Type of test	Route	Species	Dose
TD <sub>Lo</sub>	Intravenous	Mammal - dog	160 ug/kg/4D-I

### Tumorigenic data

Type of test	Route	Species	Dose
TD <sub>Lo</sub>	Oral	Rodent - mouse	10 mg/kg

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TD <sub>Lo</sub>	Administration onto the skin	Rodent - mouse	30204 ug/kg/72W-I
TD <sub>Lo</sub>	Intravaginal	Rodent - mouse	51 mg/kg/52W-I
TD <sub>Lo</sub>	Implant	Mammal - dog	798 ng/kg/21W-C
TD <sub>Lo</sub>	Administration onto the skin	Rodent - hamster	7800 ug/kg/26W-I
TD	Administration onto the skin	Rodent - mouse	1680 ug/kg/16W-I

#### Mutation data

Type of test	System	Dose
Mutation in microorganisms	Bacteria - Escherichia coli	1 mg/L
Cytogenetic analysis	Yeast - Saccharomyces cerevisiae	20 ug/L
DNA damage	Human Fibroblast	1300 nmol/L
DNA damage	Human Leukocyte	25 ug/L
Unscheduled DNA synthesis	Human Cells	10 ug/L
Unscheduled DNA synthesis	Human Fibroblast	100 ug/L
DNA inhibition	Human Leukocyte	500 pmol/L
DNA inhibition	Human Cells	100 ng/L
DNA inhibition	Human Fibroblast	20 mg/L
DNA inhibition	Human Lymphocyte	10 nmol/L
DNA inhibition	Human Cells	500 pmol/L
Mutation test systems	Human Cells	1 umol/L
Cytogenetic analysis	Rodent - hamster HeLa cell	100 nmol/L
Cytogenetic analysis	Human HeLa cell	10 nmol/L
Cytogenetic analysis	Human Lymphocyte	100 ug/L

#### Serious eye damage/eye irritation

no data available

#### Respiratory or skin sensitization

no data available

#### Reproductive toxicity

Type of test	Route	Species	Dose
TD <sub>Lo</sub>	Intraperitoneal	Rodent - mouse	30 ug/kg
TD <sub>Lo</sub>	Subcutaneous	Rodent - mouse	640 ug/kg

**Specific target organ toxicity - single exposure (GHS)**

Inhalation - May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure (GHS)**

no data available

**Aspiration hazard**

no data available

**Potential health effects**

<b>Inhalation</b>	May be harmful if inhaled. May causes respiratory tract irritation.
<b>Ingestion</b>	May be harmful if swallowed.
<b>Skin</b>	May be harmful if absorbed through skin. Cause skin irritation.
<b>Eyes</b>	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.

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**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

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**13. DISPOSAL CONSIDERATIONS****Product**

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Observe all federal, state, and local environmental regulations. 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)**

Not dangerous goods

### **IMDG**

Not dangerous goods

### **IATA**

Not dangerous goods

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## **15. REGULATORY INFORMATION**

### **OSHA Hazards**

Irritant.

### **DSL Status**

This product contains the following components that are not on the Canadian DSL nor NDSL lists.

Tetradecanoic acid,

(1aR,1bS,4aR,7aS,7bS,8R,9R,9aS)-9a-(acetyloxy)-1a,1b,4,4a,5,7a,7b,8,9,9a-decahydro-4a,7b-dihydroxy-3-(hydroxymethyl)-1,1,6,8-tetramethyl-5-oxo-1H-cyclopropa[3,4]benz[1,2-e]azul en-9-yl ester

CAS-No. 16561-29-8

### **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**

No SARA Hazards

### **Massachusetts Right To Know Components**

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

### **Pennsylvania Right To Know Components**

Tetradecanoic acid,  
(1aR,1bS,4aR,7aS,7bS,8R,9R,9aS)-9a-(acetyloxy)-1a,1b,4,4a,5,7a,7b,8,9,9a-decahydro-4a,7b-dihydroxy-3-(hydroxymethyl)-1,1,6,8-tetramethyl-5-oxo-1H-cyclopropa[3,4]benz[1,2-e]azulen-9-yl ester

CAS-No. 16561-29-8

### **New Jersey Right To Know Components**

Tetradecanoic acid,  
(1aR,1bS,4aR,7aS,7bS,8R,9R,9aS)-9a-(acetyloxy)-1a,1b,4,4a,5,7a,7b,8,9,9a-decahydro-4a,7b-dihydroxy-3-(hydroxymethyl)-1,1,6,8-tetramethyl-5-oxo-1H-cyclopropa[3,4]benz[1,2-e]azulen-9-yl ester

CAS-No. 16561-29-8

### **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.

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## **16. OTHER INFORMATION**

This MSDS above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from

its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no way shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if the company has been advised of the possibility of such damages.

