

MATERIAL SAFETY DATA SHEET for Gossypol: [Download MSDS for Gossypol in PDF format](#)

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## **Section 1 - Product Information**

Product Name GOSSYPOL

Product Number ST065835

## **Section 2 - Composition/Information on Ingredient**

Substance Name CAS # SARA 313

GOSSYPOL 303-45-7 No

Formula C<sub>30</sub>H<sub>30</sub>O<sub>8</sub>

Synonyms 2,2'-Bis(1,6,7-trihydroxy-3-methyl-5-isopropyl-8-a

ldehydonaphthalene) \*

8-Formyl-1,6,7-trihydroxy-5-isopropyl-3-methyl-2,2

'-bisnaphthalene \* Gossypol \* Tash 1

RTECS Number: DU3100000

### Section 3 - Hazards Identification

#### **EMERGENCY OVERVIEW**

Harmful.

Harmful if swallowed. Limited evidence of a carcinogenic effect.

Possible mutagen. Target organ(s): Male reproductive system.

HMIS RATING

HEALTH: 0\*

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING

HEALTH: 0

FLAMMABILITY: 0

REACTIVITY: 0

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

#### **Section 4 - First Aid Measures**

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#### **ORAL EXPOSURE**

If swallowed, wash out mouth with water provided person is

conscious. Call a physician.

## **INHALATION EXPOSURE**

If inhaled, remove to fresh air. If breathing becomes difficult,

call a physician.

## **DERMAL EXPOSURE**

In case of skin contact, flush with copious amounts of water for

at least 15 minutes. Remove contaminated clothing and shoes.

Call a physician.

## **EYE EXPOSURE**

In case of contact with eyes, flush with copious amounts of

water for at least 15 minutes. Assure adequate flushing by

separating the eyelids with fingers. Call a physician.

## **Section 5 - Fire Fighting Measures**

### **FLASH POINT**

N/A

### **AUTOIGNITION TEMP**

N/A

### **FLAMMABILITY**

N/A

### **EXTINGUISHING MEDIA**

Suitable: Water spray.

### **FIREFIGHTING**

Protective Equipment: Wear self-contained breathing apparatus

and protective clothing to prevent contact with skin and eyes.

## **Section 6 - Accidental Release Measures**

### PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

### METHODS FOR CLEANING UP

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

## **Section 7 - Handling and Storage**

### STORAGE

Store at 2-8°C

## **Section 8 - Exposure Controls / PPE**

### ENGINEERING CONTROLS

Mechanical exhaust required.

## **PERSONAL PROTECTIVE EQUIPMENT**

Respiratory: Use respirators and components tested and approved

under appropriate government standards such as NIOSH (US) or CEN

(EU). Where risk assessment shows air-purifying respirators are

appropriate use a dust mask type N95 (US) or type P1 (EN 143)

respirator.

Hand: Compatible chemical-resistant gloves.

Eye: Chemical safety goggles.

## **Section 9 - Physical/Chemical Properties**

Appearance Physical State: Solid

Property Value At Temperature or Pressure

Molecular Weight 518.6 AMU



pH N/A

BP/BP Range N/A

MP/MP Range N/A

Freezing Point N/A

Vapor Pressure N/A

Vapor Density N/A

Saturated Vapor Conc. N/A

SG/Density N/A

Bulk Density N/A

Odor Threshold N/A

Volatile% N/A

VOC Content N/A

Water Content N/A

Solvent Content N/A

Evaporation Rate N/A

Viscosity N/A

Surface Tension N/A

Partition Coefficient N/A

Decomposition Temp. N/A

Flash Point N/A

Explosion Limits N/A

Flammability N/A

Autoignition Temp N/A

Refractive Index N/A

Optical Rotation N/A

Miscellaneous Data N/A

Solubility N/A

N/A = not available

## **Section 10 - Stability and Reactivity**

### **STABILITY**

Stable: Stable.

### **HAZARDOUS DECOMPOSITION PRODUCTS**

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide.

### **HAZARDOUS POLYMERIZATION**

Hazardous Polymerization: Will not occur

## **Section 11 - Toxicological Information**

### **ROUTE OF EXPOSURE**

Skin Absorption: May be harmful if absorbed through the skin.

Inhalation: May be harmful if inhaled.

Ingestion: Harmful if swallowed.

Multiple Routes: May cause irritation.

### **TARGET ORGAN(S) OR SYSTEM(S)**

Male reproductive system.

### **SIGNS AND SYMPTOMS OF EXPOSURE**

May be irritating to the gastrointestinal tract in experimental

animals. Large doses caused edema of lungs, shortness of breath,

and paralysis.

## CONDITIONS AGGRAVATED BY EXPOSURE

The toxicological properties have not been thoroughly  
  
investigated.

## TOXICITY DATA

Oral Oral

Rat Rat

2315 mg/kg 2315 mg/kg

LD50 LD50

Oral Oral

Pig Pig

550 mg/kg 550 mg/kg

LD50 LD50

Remarks: Nutritional and Gross Metabolic:Weight loss or

decreased weight gain. Gastrointestinal:Hypermotility, diarrhea.

Behavioral:Muscle weakness. Nutritional and Gross

Metabolic:Weight loss or decreased weight gain.

Gastrointestinal:Hypermotility, diarrhea. Behavioral:Muscle

weakness.

## **CHRONIC EXPOSURE - MUTAGEN**

Species: Human Human

Dose: 10 MG/L 10 MG/L

Cell Type: HeLa cell HeLa cell

Mutation test: DNA inhibition DNA inhibition

Species: Hamster Hamster

Dose: 50 MG/L 50 MG/L

Exposure Time: 48H 48H

Cell Type: lymphocyte lymphocyte

Mutation test: Other mutation test systems Other mutation test

systems

Species: Man Man

Dose: 9 UG/PLATE 9 UG/PLATE

Cell Type: lymphocyte lymphocyte

Mutation test: Cytogenetic analysis Cytogenetic analysis

Species: Man Man

Dose: 1 UG/PLATE 1 UG/PLATE

Cell Type: lymphocyte lymphocyte

Mutation test: Sister chromatid exchange Sister chromatid

exchange

Species: Hamster Hamster

Dose: 10 MG/L 10 MG/L

Cell Type: ovary ovary

Mutation test: DNA inhibition DNA inhibition

Species: Hamster Hamster

Dose: 50 MG/L 50 MG/L

Cell Type: ovary ovary

Mutation test: Other mutation test systems Other mutation test



systems

Species: Hamster Hamster

Dose: 10 MG/L 10 MG/L

Exposure Time: 48H 48H

Cell Type: ovary ovary

Mutation test: Other mutation test systems Other mutation test

systems

## **CHRONIC EXPOSURE - REPRODUCTIVE HAZARD**

Species: Man Man

Dose: 17 MG/KG 17 MG/KG

Route of Application: Oral Oral

Exposure Time: (60D MALE) (60D MALE)

Result: Paternal Effects: Spermatogenesis (including genetic

material, sperm morphology, motility, and count). Effects on

Fertility: Male fertility index (e.g., # males impregnating

females per # males exposed to fertile nonpregnant females).

Paternal Effects: Spermatogenesis (including genetic material,

sperm morphology, motility, and count). Effects on Fertility:

Male fertility index (e.g., # males impregnating females per #

males exposed to fertile nonpregnant females).

Species: Rat Rat

Dose: 700 MG/KG 700 MG/KG

Route of Application: Oral Oral

Exposure Time: (35D MALE) (35D MALE)

Result: Paternal Effects: Spermatogenesis (including genetic

material, sperm morphology, motility, and count). Paternal

Effects: Spermatogenesis (including genetic material, sperm

morphology, motility, and count).

Species: Rat Rat

Dose: 1050 MG/KG 1050 MG/KG

Route of Application: Oral Oral

Exposure Time: (35D MALE) (35D MALE)

Result: Effects on Newborn: Live birth index (# fetuses per

litter; measured after birth). Paternal Effects: Spermatogenesis

(including genetic material, sperm morphology, motility, and

count). Effects on Newborn: Live birth index (# fetuses per

litter; measured after birth). Paternal Effects: Spermatogenesis

(including genetic material, sperm morphology, motility, and

count).

Species: Monkey Monkey

Dose: 4500 MG/KG 4500 MG/KG

Route of Application: Oral Oral

Exposure Time: (90D MALE) (90D MALE)

Result: Paternal Effects: Spermatogenesis (including genetic

material, sperm morphology, motility, and count). Paternal

Effects: Spermatogenesis (including genetic material, sperm

morphology,motility, and count).

Species: Hamster Hamster

Dose: 525 MG/KG 525 MG/KG

Route of Application: Oral Oral

Exposure Time: (35D MALE) (35D MALE)

Result: Paternal Effects: Spermatogenesis (including genetic

material, sperm morphology,motility, and count). Paternal

Effects: Spermatogenesis (including genetic material, sperm

morphology,motility, and count).

Species: Hamster Hamster

Dose: 700 MG/KG 700 MG/KG

Route of Application: Oral Oral

Exposure Time: (70D MALE) (70D MALE)

Result: Effects on Fertility: Male fertility index (e.g., #

males impregnating females per # males exposed to fertile

nonpregnant females). Effects on Fertility: Male fertility index

(e.g., # males impregnating females per # males exposed to

fertile nonpregnant females).

## **Section 12 - Ecological Information**

No data available.

## **Section 13 - Disposal Considerations**

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

Dissolve or mix the material with a combustible solvent and burn

in a chemical incinerator equipped with an afterburner and

scrubber. Observe all federal, state, and local environmental

regulations.

## **Section 14 - Transport Information**

### **DOT**

Proper Shipping Name: None

Non-Hazardous for Transport: This substance is

considered to be non-hazardous for transport.

### **IATA**

Non-Hazardous for Air Transport: Non-hazardous for air

transport.

## **Section 15 - Regulatory Information**

### **EU ADDITIONAL CLASSIFICATION**

Symbol of Danger: Xn

Indication of Danger: Harmful.

R: 22-40

Risk Statements: Harmful if swallowed. Limited evidence of a  
carcinogenic effect.

S: 22-36

Safety Statements: Do not breathe dust. Wear suitable protective  
clothing.

## **US CLASSIFICATION AND LABEL TEXT**

Indication of Danger: Harmful.

Risk Statements: Harmful if swallowed. Limited evidence of a



carcinogenic effect.

Safety Statements: Do not breathe dust. Wear suitable protective

clothing.

US Statements: Possible mutagen. Target organ(s): Male

reproductive system.

## **UNITED STATES REGULATORY INFORMATION**

SARA LISTED: No

## **CANADA REGULATORY INFORMATION**

WHMIS Classification: This product has been classified in

accordance with the hazard criteria of the CPR, and the MSDS

contains all the information required by the CPR.

DSL: No

NDSL: No

## **Section 16 - Other Information**

### **DISCLAIMER**

For R&D use only. Not for drug, household or other uses

### **WARRANTY**

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. A+ Scientific.,

shall not be held liable for any damage resulting from handling or

from contact with the above product.

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