# **Material Safety Data Sheet**

Version 5.0 Revision Date 05/23/2012 Print Date 09/07/2012

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : (±)-Equol

Product Number : 45405 Brand : Sigma

Product Use : For laboratory research purposes.

Supplier : Sigma-Aldrich Canada, Ltd Manufacturer : Sigma-Aldrich Corporation

2149 Winston Park Drive 3050 Spruce St.

OAKVILLE ON L6H 6J8 St. Louis, Missouri 63103

USA

CANADA : +1 9058299500

Telephone : +1 9058299500 Fax : +1 9058299292 Emergency Phone # (For : 1-800-424-9300

both supplier and manufacturer)

Preparation Information : Sigma-Aldrich Corporation

Product Safety - Americas Region

1-800-521-8956

# 2. HAZARDS IDENTIFICATION

## **Emergency Overview**

#### WHMIS Classification

Not WHMIS controlled.

Not a dangerous substance according to GHS.

**HMIS Classification** 

Health hazard: 0 Flammability: 0 Physical hazards: 0

## **Potential Health Effects**

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

**Eyes** May cause eye irritation. **Ingestion** May be harmful if swallowed.

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 3,4-Dihydro-3-(4-hydroxyphenyl)-2H-1-benzopyran-7-ol

4',7-Dihydroxyisoflavane

Formula :  $C_{15}H_{14}O_3$ Molecular Weight : 242.27 g/mol

CAS-No.	EC-No.	Index-No.	Concentration
(±)-Equol			
94105-90-5	-	-	-

# 4. FIRST AID MEASURES

Sigma - 45405 Page 1 of 5

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

#### In case of skin contact

Wash off with soap and plenty of water.

#### In case of eye contact

Flush eyes with water as a precaution.

## If swallowed

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

## 5. FIREFIGHTING MEASURES

## Conditions of flammability

Not flammable or combustible.

## Suitable extinguishing media

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

## Special protective equipment for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

## **Hazardous combustion products**

Hazardous decomposition products formed under fire conditions. - Carbon oxides

# Explosion data - sensitivity to mechanical impact

no data available

## Explosion data - sensitivity to static discharge

no data available

## 6. ACCIDENTAL RELEASE MEASURES

#### Personal precautions

Avoid dust formation. Avoid breathing vapors, mist or gas.

# **Environmental precautions**

Do not let product enter drains.

# Methods and materials for containment and cleaning up

Sweep up and shovel. Keep in suitable, closed containers for disposal.

## 7. HANDLING AND STORAGE

# Precautions for safe handling

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.

hygroscopic Store under inert gas.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

# Personal protective equipment

#### Respiratory protection

Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Hand protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Sigma - 45405 Page 2 of 5

# Eye protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

## Skin and body protection

Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### Hygiene measures

General industrial hygiene practice.

# Specific engineering controls

Use mechanical exhaust or laboratory fumehood to avoid exposure.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

## **Appearance**

Form solid

Colour no data available

Safety data

no data available pΗ

point/freezing point

Meltina no data available

**Boiling point** no data available Flash point no data available Ignition temperature no data available Autoignition

temperature

no data available

Lower explosion limit no data available

Upper explosion limit no data available no data available Vapour pressure

Density no data available Water solubility no data available

Partition coefficient: n-octanol/water

no data available

Relative vapour

no data available

density

Odour no data available Odour Threshold no data available Evaporation rate no data available

## 10. STABILITY AND REACTIVITY

#### **Chemical stability**

Stable under recommended storage conditions.

## Possibility of hazardous reactions

no data available

#### Conditions to avoid

no data available

#### Materials to avoid

Strong oxidizing agents

Sigma - 45405 Page 3 of 5

# Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides Other decomposition products - no data available

## 11. TOXICOLOGICAL INFORMATION

## **Acute toxicity**

Oral LD50

no data available

**Inhalation LC50** 

no data available

**Dermal LD50** 

no data available

Other information on acute toxicity

no data available

Skin corrosion/irritation

no data available

Serious eye damage/eye irritation

no data available

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.

## Reproductive toxicity

no data available

#### **Teratogenicity**

no data available

Specific target organ toxicity - single exposure (Globally Harmonized System)

no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System)

no data available

#### Aspiration hazard

no data available

#### Potential health effects

Inhalation May be harmful if inhaled. May cause respiratory tract irritation.

Ingestion May be harmful if swallowed.

Skin May be harmful if absorbed through skin. May cause skin irritation.

**Eyes** May cause eye irritation.

# Synergistic effects

no data available

#### Additional Information

Sigma - 45405 Page 4 of 5

#### 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

#### **Product**

Offer surplus and non-recyclable solutions to a licensed disposal company.

#### 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

#### WHMIS Classification

Not WHMIS controlled.

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

## **16. OTHER INFORMATION**

#### **Further information**

Copyright 2012 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only. 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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Sigma - 45405 Page 5 of 5