1. PRODUCT AND COMPANY IDENTIFICATION

Product name : (±)-Equol

Product Number : 45405
Brand : Sigma
Product Use : For laboratory research purposes.

Supplier : Sigma-Aldrich Canada, Ltd
2149 Winston Park Drive
OAKVILLE ON L6H 6J8
CANADA

Manufacturer : Sigma-Aldrich Corporation
3050 Spruce St.
St. Louis, Missouri 63103
USA

Telephone : +1 9058299500
Fax : +1 9058299292

Emergency Phone #: 1-800-424-9300

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

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

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<tr>
<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Concentration</th>
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<td>(±)-Equol</td>
<td>94105-90-5</td>
<td>-</td>
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4. FIRST AID MEASURES
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.
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 workplace. 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 fume hood to avoid exposure.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Form solid
Colour no data available

Safety data
pH no data available
Melting point/freezing point 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
Vapour pressure no data available
Density no data available
Water solubility no data available
Partition coefficient: n-octanol/water no data available
Relative vapour density no data available
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
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
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
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