

MATERIAL SAFETY DATA SHEET OF GENISTEIN**Identification of substance**

- Product Name: Genistein
- Chemical Name: Genistein
- Synonyms: 4', 5, 7-Trihydroxyisoflavone
- Chemical Formula: C15-H10-O5
- Plant Source: Glycine mao(L). Merr.
- CAS#: 446-72-0
- TSCA: TSCA 8(b) inventory: Genistein
- Manufacturer/Supplier: SHAANXI YOUGU BIOTECHNOLOGY CO., LTD

Description

Characters: Powder

Appearance: Yellow white powder

Odour: Characteristic

Mesh: 80

Loss on drying%: ≤2.0%

Specifications: Genistein Content 98.0% (HPLC)

Hazards identification

- Potential Acute Health Effects:
Hazardous in case of skin contact (irritant), of ingestion, of inhalation Potential Chronic Health Effects:
- Potential Chronic Health Effects:
CARCINOGENIC EFFECTS: Not available. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male, Development toxin [POSSIBLE]. The substance is toxic to Urinary System. Repeated or prolonged exposure to the substance can produce target organs damage.

First aid measures

- Eye Contact:
No known effect on eye contact, rinse with water for a few minutes.
- Skin Contact:
After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. If irritation persists, seek medical attention. Wash contaminated clothing before reusing.
- Serious Skin Contact:
Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

- Inhalation:
Allow the victim to rest in a well-ventilated area. Seek immediate medical attention.
- Serious Inhalation: Not available.
- Ingestion:
Do not induce vomiting. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
- Serious Ingestion: Not available.

Fire and Explosion Data

- Flammability of the Product: May be combustible at high temperature.
- Auto-Ignition Temperature: Not available.
- Flash Points: Not available.
- Flammable Limits: Not available.
- Products of Combustion: These products are carbon oxides (CO, CO₂).
- Fire Hazards in Presence of Various Substances: Not available.
- Explosion Hazards in Presence of Various Substances:
Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.
- Fire Fighting Media and Instructions: SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray, fog or foam. Do not use water jet.
- Special Remarks on Fire Hazards: Not available.
- Special Remarks on Explosion Hazards: Not available

Accidental release measures

- Small Spill:
Use appropriate tools to put the spilled solid in a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements
- Large Spill:
Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

Handling and storage

- Precautions:
Keep locked up Keep away from heat. Keep away from sources of ignition. Empty containers pose a fire risk, evaporate the residue under a fume hood. Ground all equipment containing material. Do not breathe dust. Avoid contact with skin Wear suitable protective clothing In case of insufficient ventilation, wear suitable respiratory equipment If you feel unwell, seek medical attention and show the label when possible. Keep away from incompatibles such as oxidizing agents.
- Storage: Keep container dry. Keep in a cool place. Ground all equipment containing material. Carcinogenic, teratogenic or mutagenic materials should be stored in a separate locked safety storage cabinet or room.
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Exposure Controls/Personal Protection

- Engineering Controls:
Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
- Personal Protection: Safety glasses. Lab coat.
- Personal Protection in Case of a Large Spill:
Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
- Exposure Limits: Not available.

Physical and Chemical Properties

- Physical state and appearance: Solid. (Powdered Crystalline)
- Odor: Not available
- Taste: Not available
- Molecular Weight: 270.25 g/mole
- Color: Yellow white
- pH (1% soln/water): Not available.
- Boiling Point: Not available.
- Melting Point: 254°C (489.2°F)
- Critical Temperature: Not available.
- Specific Gravity: Not available.
- Vapor Pressure: Not applicable.
- Vapor Density: Not available.
- Volatility: Not available.
- Odor Threshold: Not available.
- Water/Oil Dist. Coeff.: Not available.
- Ionicity (in Water): Not available.
- Dispersion Properties: Not available.
- Solubility: Not available.

Stability and reactivity Data

- Stability: The product is stable.
- Instability Temperature: Not available.
- Conditions of Instability: Excess heat, ignition sources.
- Incompatibility with various substances: Reactive with oxidizing agents.
- Corrosivity: Non-corrosive in presence of glass.
- Special Remarks on Reactivity: Not available.
- Special Remarks on Corrosivity: Not available.
- Polymerization: Will not occur.

Toxicological information

- Routes of Entry: Eye contact. Inhalation. Ingestion.
- Toxicity to Animals: LD50: Not available. LC50: Not available.
- Chronic Effects on Humans: DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male, Development toxin [POSSIBLE]. The substance is toxic to Urinary System.
- Other Toxic Effects on Humans: Hazardous in case of skin contact (irritant), of ingestion, of inhalation.
- Special Remarks on Toxicity to Animals: Not available.
- Special Remarks on Chronic Effects on Humans: Not available.
- Special Remarks on other Toxic Effects on Humans: Not available.
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Ecological information

- Ecotoxicity: Not available.
- BOD5 and COD: Not available.
- Products of Biodegradation:
Possibly hazardous short-term degradation products are not likely. However, long term degradation products may arise.
- Toxicity of the Products of Biodegradation: The products of degradation are more toxic.
- Special Remarks on the Products of Biodegradation: Not available.

Disposal Considerations

- Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Transport information

- DOT Classification: Not a DOT controlled material (United States)
- Identification: Not applicable.
- ADR/RID class: By sea, By Air or By Express
- Special Provisions for Transport: Not applicable.

Other Regulatory Information

- Federal and State Regulations: TSCA 8(b) inventory: Genistein
- Other Regulations: EINECS: This product is not on the European Inventory of Existing Commercial Chemical Substances.
- Other Classifications:
WHMIS (Canada): Not controlled under WHMIS (Canada).
- DSCL (EEC):
R38- Irritating to skin. R40- Possible risks of irreversible effects. R62- Possible risk of impaired fertility. R63- Possible risk of harm to the unborn child
- HMIS (U.S.A.)
Health Hazard: 2
Fire Hazard: 1

Reactivity: 0

Personal Protection: E

National Fire Protection Association (U.S.A.):

Health: 2

Flammability: 1

Reactivity: 0

Specific hazard: Protective Equipment: Not applicable. Lab coat. Not applicable. Safety glasses.

Other information

- GHS Classification and labelling information ECHA
Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.
This substance is not classified as dangerous according to Directive 67/548/EEC.
- Label elements
The product does not need to be labelled in accordance with EC directives or respective national laws

Company Policy or Disclaimer

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Abbreviations and acronyms:

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

ADR: European agreement concerning the international carriage of dangerous goods by Road.

IMDG: International Maritime Dangerous Goods.

IATA: International Air Transport Association.

ICAO: International Civil Aviation Organisation

RID: Regulations concerning the International carriage of Dangerous