

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name: Genistein

Catalogue Number: orb61038

1.2 Details of the supplier of the safety data sheet

Company: Biorbyt Ltd.
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Cowley Road Cambridge
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United Kingdom

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SECTION 2: Hazard(s) identification

Hazard Description:

Substance Class Identifier: Tumorigen; Drug; Hormone; Mutagen; Natural Product; Human Data; Reproductive Effector

May be harmful if swallowed, inhaled, or absorbed through the skin

In at least one study ingestion resulted in gastrointestinal toxicities and impaired immunity

Exposure may cause irritation of the skin, eyes, mucous membranes, and upper respiratory tract

Signal Word: Warning

H303 - May be harmful if swallowed

H313 - May be harmful in contact with skin

H333 - May be harmful if inhaled

H335 - May cause respiratory irritation

H341 - Suspected of causing genetic defects

H361 - Suspected of damaging fertility or the unborn child

GHS Precautionary Statements:

P261 - Avoid breathing dust/fume/gas/mist/vapours/spray

P264 - Wash skin thoroughly after handling

P280 - Wear protective gloves/eye protection/face protection

P301 + P312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if

present and easy to do. Continue rinsing



SECTION 3: Composition/information on ingredients:

Chemical Name: 5,7-Dihydroxy-3-(4-hydroxyphenyl)-4*H*-1-benzopyran-4-one
 Synonyms: 4',5,7-Trihydroxyisoflavone, Baichanin A, Bonistein, Genisteol, Genisterin, GeniVida, Prunetol, Sophoricol
 Hazardous Ingredient: Genistein
 CAS Registry Number: 446-72-0
 Molecular Weight: 270.24
 Molecular Formula: C₁₅H₁₀O₅

SECTION 4: First aid measures

After Inhalation: If inhaled, remove to fresh air; if breathing is difficult, give oxygen; if breathing stops, give artificial respiration
 After skin contact: flush with copious amounts of water; remove contaminated clothing and shoes; call a physician
 After eye contact: flush with copious amounts of water; assure adequate flushing by separating the eyelids with fingers; call a physician
 After swallowing: if swallowed, wash out mouth with copious amounts of water; call a physician

SECTION 5: Firefighting measures

Suitable extinguishing agents: water spray, carbon dioxide, dry chemical powder or foam
 Protective equipment: wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes
 Unusual fire hazard: may emit toxic fumes under fire conditions

SECTION 6: Accidental release measures

Person-related safety precautions: cordon off area of spill; wear self-contained breathing apparatus, protective clothing and heavy rubber gloves
 Measures for cleaning/collecting: absorb solutions with finely-powdered liquid-binding material (diatomite, universal binders); decontaminate surfaces and equipment by scrubbing with alcohol; dispose of contaminated material according to Section 13

SECTION 7: Handling and storage

Information for safe handling: avoid contact with skin, eyes and clothing; material may be an irritant
 Storage: store solid and solutions at -20 °C

SECTION 8: Exposure controls/personal protection

Personal protective equipment as follows:

Breathing equipment: NIOSH/MSHA-approved respirator

Protection of hands: chemical-resistant rubber gloves

Eye protection: chemical safety goggles

SECTION 9: Physical and chemical properties

Form: crystalline solid; granular or powder

Color: off-white to beige or light tan

Odor: none

Melting point/Melting range: 295-305 °C

Danger of explosion: none

Solubility in / Miscibility with water: not soluble

Solvent content: none

Organic solvents: soluble in DMSO

SECTION 10: Stability and reactivity

Stability: avoid acids and bases

Thermal decomposition / conditions to be avoided: protect from light and heat

Dangerous products of decomposition: thermal decomposition may produce toxic gases such as carbon monoxide and carbon dioxide

SECTION 11: Toxicological information

RTECS #: NR2392000

Acute toxicity: intraperitoneal toxicity (LD50): >500 mg/kg (mouse); oral toxicity (TDLo): 0.3 mg/kg (mouse); intravenous toxicity (TDLo): 10 mg/kg (mouse), 100 µg/kg (rabbit); subcutaneous toxicity (TDLo): 10.8 g/kg (mouse)

Primary irritant effect:

On the skin: may be an irritant; may be harmful if absorbed through the skin

On the eye: may be an irritant

Inhalation: may cause respiratory tract irritation; may be harmful if inhaled

Ingestion: may be harmful if swallowed

SECTION 12: Ecological information

General notes: no data available

Treat as potentially toxic if released into the environment

SECTION 13: Disposal considerations

Dispose of in accordance with prevailing country, federal, state and local 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 class:

Proper shipping name: none

Non-Hazardous for transport: this substance is considered to be non-hazardous for transport

SECTION 15: Regulatory information

Code letter and hazard designation of product:

EU Risk And Safety phrases:

S22: Do not breathe dust

S24/25: Avoid contact with skin and eyes

S36/37/39: Wear suitable protective clothing, gloves and eye/face protection

S45: In case of accident or if you feel unwell seek medical advice immediately (show the label where possible)

R62: Possible risk of impaired fertility

R63: Possible risk of harm to the unborn child

R68: Possible risk of irreversible effects

SECTION 16: Other information Further information

The above information is believed to be correct based on our present knowledge but does not purport to be complete. For research use only by trained personnel. The burden of safe use of this material rests entirely with the user. Biorbyt disclaims all liability

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