Safety Data Sheet (SDS) - Formononetin

According to Regulation (EC) No 1907/2006 (REACH), as amended by Regulation (EU) 2020/878
Version 1.1, 11-Nov-2026

Section 1. Identification of the substance/mixture and of the company

Product name:	Formononetin
Recommended uses:	Professional ingredient for formulation, manufacturing, analytical, and research and development (R&D) applications.
Uses advised against:	Not intended for direct use by consumers as a medicinal product.
Catalogue Number:	NST-10-17
Supplier:	NATURE SCIENCE TECHNOLOGIES Ltd. Briezu 11, Lapsas, Latvia, LV-2107; Phone: +371 24220280 Email: inquiries@nstchemicals.com; Website: www.nstchemicals.com Emergency: Latvian Poison Information Centre +371 67042473 (24/7)

Section 2. Hazards identification

Classification:	Regulation (EC) No 1272/2008 (CLP): Not classified as hazardous based on the assessed information. No hazard classes are assigned for the supplied product.
Label elements:	Pictogram(s): None | Signal word: None Hazard statements: None. Precautionary advice: Avoid generating or breathing dust. Use adequate ventilation. Wear suitable gloves and safety glasses where exposure is possible. Wash thoroughly after handling. Other hazards: Fine airborne organic dust may form a combustible dust atmosphere. PBT, vPvB, PMT/vPvM and endocrine-disrupting properties have not been established.

Section 3. Composition/information on ingredients

Chemical name:	Formononetin, ≥98.0 % by HPLC (supplier specification).
Synonyms:	7-hydroxy-3-(4-methoxyphenyl)chromen-4-one
Chemical formula:	C16H12O4
Molecular weight:	268.26 g/mol
CAS No:	485-72-3
EC No.	207-623-9

Section 4. First aid measures

Inhalation:	Move to fresh air and keep at rest. Obtain medical advice if symptoms occur or persist.
Skin:	Remove contaminated clothing. Wash skin thoroughly with soap and water. Obtain medical help if irritation, burns or rash occurs or persists.
Eyes:	Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing; obtain medical advice if irritation persists.
Ingestion:	Rinse mouth. Do not induce vomiting unless directed by medical personnel. Contact a poison centre or doctor if unwell.

Section 5. Firefighting measures

Extinguishing media suitable:	Water spray, alcohol-resistant foam, dry chemical powder or carbon dioxide. Avoid a direct high-pressure water jet.
Special protection of fire-fighters:	Wear self-contained breathing apparatus and full protective equipment. Carbon monoxide, carbon dioxide and irritating fumes may form during combustion or thermal decomposition. Prevent airborne dust accumulation.

Section 6. Accidental release measures

Personal precautions:	Avoid breathing dust and contact with skin or eyes. Ensure adequate ventilation. Wear the personal protective equipment described in Section 8.
Environmental precautions:	Prevent entry into drains, surface water and soil. Avoid uncontrolled release to the environment.
Methods for cleaning up:	Collect mechanically or with a HEPA-filtered vacuum without generating dust. Place in a closed, labelled container for disposal. Wash the affected area after collection.

Section 7. Handling and storage

Handling:	Handle in a well-ventilated area. Avoid dust formation, inhalation and contact with skin, eyes and clothing. Keep away from ignition sources and strong oxidising agents.
Storage:	Store in a cool and dry place, keep away from strong light and heat. Supplier specification shelf life: 24 months under recommended conditions.

Section 8. Exposure controls/personal protection

Engineering measures:	No substance-specific occupational exposure limit has been established. Use closed handling or local exhaust ventilation where dust may form. Provide eyewash facilities.
Hygiene measures:	Wash hands and exposed skin after handling and before breaks. Do not eat, drink or smoke in work areas. Remove and wash contaminated clothing before reuse.
Personal protective equipment:	Respiratory protection: particulate-filter respirator suitable for the assessed dust exposure when ventilation is insufficient. Hands: chemical-resistant protective gloves, e.g. nitrile.
Skin and body:	Protective work clothing appropriate to the scale and duration of exposure.
Eyes:	Safety glasses with side shields; use chemical goggles or a face shield where serious eye damage is classified or significant dust exposure is possible.

Section 9. Physical and chemical properties

Physical state:	Powder
Colour:	White
Odour:	No reliable product-specific data identified
Molecular Weight:	268.26 g/mol
Melting point:	No value specified in the NST quality specification
pH:	No data available
Boiling point:	No reliable product-specific data identified
Solubility:	No reliable product-specific quantitative data identified
Explosive properties:	The supplied solid is not classified as explosive or flammable. Fine airborne organic dust may form a combustible atmosphere. No reliable product-specific data were identified for boiling point, flash point, vapour pressure, density or partition coefficient.

Section 10. Stability and reactivity

Stability:	Stable under recommended storage and normal handling conditions unless otherwise indicated by the classification. No hazardous polymerisation is expected.
Materials to avoid:	Strong oxidising agents; excessive heat, strong light and conditions that generate or ignite airborne dust.
Hazardous decomposition products:	Carbon monoxide, carbon dioxide and irritating fumes may form during combustion or thermal decomposition.

Section 11. Toxicological information

Acute toxicity:	Not classified for acute toxicity based on the assessed information. Quantitative product-specific endpoint data were not identified.
Skin corrosion/irritation:	Not classified for skin corrosion/irritation or serious eye damage/irritation. Dust may cause transient mechanical irritation.
Respiratory or skin sensitisation:	Not classified for respiratory or skin sensitisation based on the assessed information.
CMR effects:	Available information does not support classification for germ-cell mutagenicity, carcinogenicity or reproductive toxicity; complete studies were not identified.
Signs and symptoms of exposure:	Dust may cause coughing or mechanical discomfort. Toxic, irritating, corrosive or allergic effects may occur where indicated by the classification.
Potential health effects:	No classification is assigned for specific target-organ toxicity or aspiration hazard based on the assessed information.
Inhalation:	Dust may cause temporary respiratory discomfort; move the exposed person to fresh air. Obtain medical help where indicated by the classification or if symptoms persist.
Skin:	Wash after contact. Repeated or prolonged contact may cause mild dryness or discomfort.
Eyes:	Dust or direct contact may cause mechanical irritation; rinse promptly and thoroughly with water.
Ingestion:	May cause gastrointestinal effects. Follow the immediate first-aid instructions in Section 4 and obtain medical help where indicated by the classification.
Other information:	Treat symptomatically. Seek prompt medical advice after significant exposure or if symptoms persist.

Section 12. Ecological information

Ecotoxicity:	Not classified as hazardous to the aquatic environment based on the assessed information. Quantitative product-specific ecotoxicity data were not identified; avoid uncontrolled release.
Persistence and degradability:	No reliable product-specific data were identified for degradability, bioaccumulation or mobility in soil.
Other adverse effects:	The product is not identified as PBT or vPvB based on available information. PMT/vPvM and endocrine-disrupting properties have not been established.

Section 13. Disposal considerations

Product:	Dispose of contents through a licensed waste disposal contractor in accordance with local, regional and national requirements. Do not discharge to drains.
Contaminated packaging:	Empty completely. Dispose of contaminated packaging in accordance with applicable requirements; do not reuse unless appropriately decontaminated.

Section 14. Transport information

ADR/RID:	Not regulated as dangerous goods under ADR/RID based on the assessed classification and available transport information.
IMDG:	Not regulated as dangerous goods under IMDG; not identified as a marine pollutant.
IATA:	Not regulated as dangerous goods under IATA.

Section 15. Regulatory information

EU regulatory information:	Prepared in accordance with Regulation (EC) No 1907/2006 (REACH), Annex II, as amended by Regulation (EU) 2020/878. Classification and labelling are stated under Regulation (EC) No 1272/2008 (CLP), as amended. A chemical safety assessment has not been carried out by the supplier for this product.

Section 16. Other information

Notice to reader:	Version 1.1; revision date 11-Nov-2026. Section 1 recommended uses and uses advised against were clarified to distinguish professional ingredient use from direct consumer use as a medicinal product; hazard classification and transport information are unchanged. Classification is based on the NST quality specification and the stated research sources: NST QS; current supplier SDS; PubChem identity; ECHA substance and C&L information (notified classifications distinguished from supplier classification). This information is guidance for safe handling and is not a warranty of product properties.