



Material Safety Data Sheet  
Formononetin, 99%

MSDS# 02219

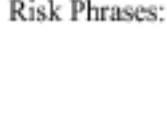
Section 1 - Chemical Product and Company Identification

MSDS Name: Formononetin, 99%  
 Catalog Numbers: AC342480000, AC342480010  
 Synonyms: 7-Hydroxy-4'-methoxyisoflavone; Daidenin 4'-methyl ether  
 Company Identification: Acros Organics BVBA  
 Janssen Pharmaceuticaalaa 3a  
 2440 Geel, Belgium  
 Company Identification: (USA) Acros Organics  
 One Reagent Lane  
 Fair Lawn, NJ 07410  
 For information in the US, call: 800-ACROS-01  
 For information in Europe, call: +32 14 57 52 11  
 Emergency Number, Europe: +32 14 57 52 99  
 Emergency Number US: 201-796-7100  
 CHEMTREC Phone Number, US: 800-424-9300  
 CHEMTREC Phone Number, Europe: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#: 485-72-3  
 Chemical Name: Formononetin  
 %: 99  
 EINECS#: 207-623-9

Hazard Symbols: XI



Risk Phrases: 36/37/38

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Causes eye, skin, and respiratory tract irritation. Target Organs: Respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.  
 Skin: Causes skin irritation.  
 Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea.  
 Causes respiratory tract irritation. Inhalation may be fatal as a result of spasm, inflammation, edema of the larynx  
 Inhalation: and bronchi, chemical pneumonitis and pulmonary edema. May cause burning sensation, coughing, wheezing,  
 laryngitis, shortness of breath, headache, nausea, and vomiting. Can produce delayed pulmonary edema.  
 Chronic: No information found.

Section 4 - First Aid Measures

Eyes: Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical aid.  
 Skin: Get medical aid. Flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse.  
 Ingestion: Never give anything by mouth to an unconscious person. Get medical aid. Do NOT induce vomiting. If conscious and alert, rinse mouth and drink 2-4 cupfuls of milk or water. Wash mouth out with water.  
 Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.

Notes to Physician: Treat symptomatically and supportively.

Section 5 - Fire Fighting Measures

General Information: As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

Extinguishing Media: Use water spray, dry chemical, carbon dioxide, or chemical foam.

Autoignition Temperature: Not available

Flash Point: Not available

Explosion Limits: Not available

Lower: Not available

Explosion Limits: Not available

Upper: Not available

NFPA Rating: health: 2; flammability: 0; instability: 0;

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Vacuum or sweep up material and place into a suitable disposal container. Clean up spills immediately, observing precautions in the Protective Equipment section. Avoid generating dusty conditions. Provide ventilation.

Section 7 - Handling and Storage

Handling: Minimize dust generation and accumulation. Avoid breathing dust, mist, or vapor. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation. Use with adequate ventilation. Wash clothing before reuse.

Storage: Store in a tightly closed container. Store in a cool, dry, well-ventilated area away from incompatible substances.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Formononetin	none listed	none listed	none listed

OSHA Vacated PELs: Formononetin: None listed

Engineering Controls:

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate ventilation to keep airborne concentrations low.

Exposure Limits

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Section 9 - Physical and Chemical Properties

Physical State: Solid

Color: Not available

Odor: Not available

pH: Not available

Vapor Pressure: Not available

Vapor Density: Not available

Evaporation Rate: Not available

Viscosity: Not available

Boiling Point: Not available

Freezing/Melting Point: 258 deg C ( 496.40°F)

Decomposition Temperature: Not available

Solubility in water: Not available

Specific Gravity/Density:

Molecular Formula: C16H12O4

Molecular Weight: 268.0816

Section 10 - Stability and Reactivity

Chemical Stability: Stable at room temperature in closed containers under normal storage and handling conditions.

Conditions to Avoid: Incompatible materials, dust generation, excess heat.

Incompatibilities with Other Materials: Oxidizing agents, acids, acid anhydrides, acid chlorides.

Hazardous Decomposition Products: Carbon monoxide, carbon dioxide.

Hazardous Polymerization: Has not been reported.

Section 11 - Toxicological Information

RTECS#: CAS# 485-72-3: DJ3100114

LD50/LC50: RTECS: Not available.

Carcinogenicity: Formononetin - Not listed as a carcinogen by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: No information found

Teratogenicity: No information found

Reproductive: No information found

Neurotoxicity: No information found

Mutagenicity: No information found

Other: The toxicological properties have not been fully investigated.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification. RCRA P-Series: None listed. RCRA U-Series: None listed.

Section 14 - Transport Information

US DOT Shipping Name: Not regulated as a hazardous material  
 Hazard Class:

UN Number:  
 Packing Group:  
 Canada TDG Shipping Name: Not available  
 Hazard Class:

UN Number:  
 Packing Group:

Section 15 - Regulatory Information

US Federal

TSCA

CAS# 485-72-3 is not listed on the TSCA Inventory. It is for research and development use only.

Health & Safety Reporting List: None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules: None of the chemicals in this product are under a Chemical Test Rule.

Section 12b: None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule: None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs: None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances: None of the chemicals in this product have a TPQ.

Section 313: No chemicals are reportable under Section 313.

Clean Air Act: This material does not contain any hazardous air pollutants. This material does not contain any Class 1 Ozone depleters. This material does not contain any Class 2 Ozone depleters.

Clean Water Act: None of the chemicals in this product are listed as Hazardous Substances under the CWA. None of the chemicals in this product are listed as Priority Pollutants under the CWA. None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA: STATE: Formononetin is not present on state lists from CA, PA, MN, MA, FL, or NJ.

California Prop 65: None of the chemicals in this product are listed.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: XI

Risk Phrases:

R 36/37/38 Irritating to eyes, respiratory system and skin.

Safety Phrases:

S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S 37/39 Wear suitable gloves and eye/face protection.

WGK (Water Danger/Protection)

CAS# 485-72-3: Not available

Canada

Canadian WHMIS Classifications: Not available

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

CAS# 485-72-3 is not listed on Canada's Ingredient Disclosure List.

Section 16 - Other Information

MSDS Creation Date: 2/01/2000

Revision #4 Date 10/19/2006

Revisions were made in Sections: 3

The information above is believed to be accurate and represents the best warranty currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall the company be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential, or exemplary damages howsoever arising, even if the company has been advised of the possibility of such damages.