



Material Safety Data Sheet

Aristolochic acid, mixture of I and II (approx. 1:1)

MSDS# 25298

Section 1 - Chemical Product and Company Identification

MSDS Name: Aristolochic acid, mixture of I and II (approx. 1:1)

Catalog Numbers: AC226090000, AC226091000

Synonyms: 3,4-Methylenedioxy-8-methoxy-10-nitro-1-phenanthrenecarboxylic acid mixed with 3,4-Methylenedioxy-10-nitro-1-phenanthrenecarboxylic acid.

Company Identification: Acros Organics BVBA
Janssen Pharmaceuticaaan 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

Risk Phrases:

CAS#: 313-67-7
Chemical Name: Aristolochic acid I
%: 50
EINECS#: 206-238-3
Hazard Symbols:

Risk Phrases:

CAS#: 475-80-9
Chemical Name: Aristolochic acid II
%: 50
EINECS#: 207-499-6
Hazard Symbols:

Text for R-phrases: see Section 16

Hazard Symbols: T



Risk Phrases: 45 23/24/25 36/37/38 68

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Warning! Cancer suspect agent. May cause kidney damage. Harmful if swallowed, inhaled, or absorbed through the skin.
Causes eye, skin, and respiratory tract irritation. Target Organs: Kidneys, respiratory system, eyes, skin.

Potential Health Effects

Eye: Causes eye irritation.
Skin: Causes skin irritation. Harmful if absorbed through the skin.
Ingestion: Harmful if swallowed. May cause irritation of the digestive tract. May cause kidney damage.
Inhalation: Harmful if inhaled. Causes respiratory tract irritation.
Chronic: Prolonged or repeated skin contact may cause dermatitis. May cause kidney damage.

Section 4 - First Aid Measures

Eyes: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.
Skin: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.
Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical aid.
Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.
Notes to Physician:

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 appropriate foam.
Autoignition Temperature: Not applicable.
Flash Point: Not applicable.
Explosion Limits: Not available
Lower:
Explosion Limits: Not available
Upper:
NFPA Rating: health: 2; flammability: 1; 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: Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Use with adequate ventilation. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid ingestion and inhalation.
Storage: Store in a cool, dry place. Do not store in direct sunlight. Store in a tightly closed container. Store at room temperature or below.

Section 8 - Exposure Controls, Personal Protection

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Aristolochic acid I	none listed	none listed	none listed
Aristolochic acid II	none listed	none listed	none listed
I			

OSHA Vacated PELs: Aristolochic acid I: None listed Aristolochic acid II: 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: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant respirator use.

Section 9 - Physical and Chemical Properties

Physical State: Powder

Color: orange-yellow

Odor: none reported

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: 260-265 deg C

Decomposition Temperature:

Solubility in water: Slightly soluble

Specific Gravity/Density:

Molecular Formula: C17H11NO7

Molecular Weight: 341.27

Section 10 - Stability and Reactivity

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

Conditions to Avoid: Dust generation, excess heat.

Incompatibilities with Other Materials: Strong oxidizing agents, strong bases.

Hazardous Decomposition Products: Nitrogen oxides, carbon monoxide, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#: CAS# 313-67-7: CF3325000

CAS# 475-80-9: SF8281600

RTECS:

CAS# 313-67-7: Oral, mouse: LD50 = 55900 ug/kg;

LD50/LC50: Oral, rat: LD50 = 184 mg/kg;

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RTECS:

CAS# 475-80-9:

Carcinogenicity: Aristolochic acid I - California: carcinogen, initial date 7/9/04 (Aristolochic acids (naturally occurring mixtures of)). IARC: Group 2A carcinogen

Aristolochic acid II - California: carcinogen, initial date 7/9/04 (Aristolochic acids (naturally occurring mixtures of)). IARC: Group 2A carcinogen

Other: See actual entry in RTECS for complete information.

Section 12 - Ecological Information

Not available

Section 13 - Disposal Considerations

Dispose of in a manner consistent with federal, state, and local regulations.

Section 14 - Transport Information

US DOT

Shipping Name: Please contact Fisher Scientific for shipping information

Hazard Class:

UN Number:

Packing Group:

Canada TDG

Shipping Name: Not available

Hazard Class:

UN Number:

Packing Group:

Section 15 - Regulatory Information

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols: T

Risk Phrases:

R 45 May cause cancer.

R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed.

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

R 68 Possible risk of irreversible effects.

Safety Phrases:

S 53 Avoid exposure - obtain special instructions before use.

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

S 36/37/39 Wear suitable protective clothing, gloves and eye/face protection.

S 45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

WGK (Water Danger/Protection)

CAS# 313-67-7: Not available

CAS# 475-80-9: Not available

Canada

Canadian WHMIS Classifications: D1B, D2A

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# 313-67-7 is not listed on Canada's Ingredient Disclosure List.

CAS# 475-80-9 is not listed on Canada's Ingredient Disclosure List.

US Federal

TSCA

CAS# 313-67-7 is not listed on the TSCA Inventory. It is for research and development use only.

CAS# 475-80-9 is not listed on the TSCA Inventory. It is for research and development use only.

Section 16 - Other Information

MSDS Creation Date: 9/02/1997

The information above is believed to be accurate and represents the best information 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.
