

Section 1: Product and Company Identification

1.1 Product Identifiers:

Product Name: ABRAXIS® Aflatoxin B2 Certified Standard

Product Code: 300820

1.2 Identified Use: Positive control for determination of Aflatoxin B2 in samples. **Restrictions on Use:** For research use only.

1.3 Company: Gold Standard Diagnostics, 124 Railroad Drive, Warminster, PA 18974 USA, info.abraxis@us.goldstandarddiagnostics.com +1(215) 357-3911, FAX +1(215) 357-5232

1.4 Emergency Telephone Number: +1(215) 357-3911

Section 2: Hazard(s) Identification

2.1 Classification of the mixture:

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Flammable liquids (Category 2), H225 Highly flammable liquid and vapor

Acute toxicity, Oral (Category 4), H302 Harmful if swallowed

Acute toxicity, Inhalation (Category 4), H332 Harmful if inhaled

Acute toxicity, Dermal (Category 4), H312 Harmful if in contact with skin

Eye irritation (Category 2A), H319 Causes serious eye irritation

HMIS Rating: Health hazard: 2, Chronic Health Hazard: *, Flammability: 3, Physical Hazard 0

NFPA Rating: Health hazard: 2, Fire Hazard: 3, Reactivity Hazard: 0

2.2 GHS Label elements, including precautionary statements:

Pictogram(s)



Signal word: Danger

Hazard statement(s):

H225 Highly flammable liquid and vapor.

H302 + H312 + H332 Harmful if swallowed, in contact with skin, or if inhaled

H319 Causes serious eye irritation.

Precautionary statement(s):

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P233 Keep container tightly closed. P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment. P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge. P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash skin thoroughly after handling. P270 Do not eat, drink, or smoke when using this product.

P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/eye protection/face protection.

P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

P303 + P361 + P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/ shower.

P304 + P340 + P312 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337 + P313 If eye irritation persists: Get medical advice/attention. P363 Wash contaminated clothing before reuse.

P370 + P378 In case of fire: Use dry sand, dry chemical, or alcohol-resistant foam for extinction.

P403 + P235 Store in a well-ventilated place. Keep cool. P501 Dispose of contents/container to an approved waste disposal plant.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS: None known.

2.4 Unknown acute toxicity: None known.

Section 3: Composition / Information on Ingredients

3.2 Mixtures: Mixture of the hazardous substance(s) listed below, with nonhazardous additions.

Name and Synonym(s): Aflatoxin B2; Dihydroaflatoxin B1; 2,3,6aR,8,9,9aS-hexahydro-4-methoxy-cyclopenta[c]furo[3',2':4,5]furo[2,3-h][1]benzopyran-1,11-dione

Formula: C₁₇H₁₄O₆

Molecular weight: 314 g/mol

CAS No.: 7220-81-7

Classification: Oral, Category 2, Acute Toxicity; Skin, Category 2, Acute Toxicity; Inhalation, Category 2, Acute Toxicity; Carcinogenicity, Category 1B; H300, H310, H330, H350

Percentage in mixture: 0.0010 %

Hazardous component(s):

Name and Synonym(s): Acetonitrile, Methyl cyanide, ACN

Formula: C₂H₃N

Molecular weight: 41.05 g/mol

CAS No.: 75-05-8 EC-No.: 200-835-2

Classification: Flammable Liquid 2, Acute Toxicity 4; Eye Irritation 2A; H225, H302 + H312 + H332, H319

Percentage in Mixture: ~100 %

For full text of H-Statements mentioned in this Section, see Section 2.

Section 4: First Aid Measures

4.1 Description of first aid measures: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact: Wash off with soap and plenty of water. Consult a physician.

In case of eye contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

If swallowed: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed: The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of any immediate medical attention and special treatment needed: No data available. Treat symptomatically.

Section 5: Fire-fighting Measures

5.1 Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical, or carbon dioxide

5.2 Special hazards arising from the substance or mixture: No data available

5.3 Advice for firefighters: Wear self-contained breathing apparatus for fire-fighting if necessary.

5.4 Further information: Use water spray to cool unopened containers.

Section 6: Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures: Use personal protective equipment (see section 8). Avoid dust formation. Avoid breathing vapors, mist, dust, or gas. Ensure adequate ventilation. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas. Remove all sources of ignition. Evacuate personnel to safe areas.

6.2 Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up: Contain spillage. Solids (if applicable): Pick up and arrange disposal without creating dust. Sweep up and shovel. Liquids (if applicable): Absorb with non-combustible liquid-binding material (sand, earth, diatomite, vermiculite). Keep in suitable, closed containers for disposal.

6.4 Reference to other sections: For information on safe handling see section 7.

For information on personal protection see section 8.

For information on disposal see section 13.

Section 7: Handling and Storage

7.1 Precautions for safe handling: See section 2. Avoid inhalation of vapors or mist, and avoid contact with skin and eyes. Wear appropriate personal protective equipment. Use explosion-proof equipment. Keep away from sources of ignition. Do not eat, drink, or smoke in work area. Take measures to prevent the buildup of electrostatic charge.

7.2 Precautions for safe storage: Keep container(s) tightly closed in a dry, well-ventilated place. Protect from physical damage. Opened containers must be carefully resealed and kept upright to prevent leakage. See label or product insert for appropriate storage temperature and additional specific information. Handle and store under inert gas. Storage class (TRGS 510): Flammable liquids.

7.3 Specific end use(s): Other than use(s) specified in section 1, no other uses are stipulated.

Section 8: Exposure Controls / Personal Protection

8.1 Control parameters:

Component(s) with workplace control parameters

Acetonitrile, CAS No. 75-05-8

| Value | Control parameters | Basis |
|--|--|--|
| TWA | 20.000000 ppm | USA. ACGIH Threshold Limit Values (TLV) |
| Lower Respiratory Tract irritation Not classifiable as a human carcinogen Danger of cutaneous absorption | | |
| TWA | 20.000000 ppm; 34.000000 mg/m ³ | USA. NIOSH Recommended Exposure Limits |
| Forms cyanide in the body. | | |
| TWA | 40.000000 ppm; 70.000000 mg/m ³ | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| The value in mg/m ³ is approximate. | | |

Derived No Effect Level (DNEL)

Acetonitrile, CAS No. 75-05-8

| Application area | Exposure routes | Health effect | Value |
|------------------|-----------------|---------------|-------|
| | | | |

| | | | |
|-----------|--------------|--|-----------------------|
| Workers | Inhalation | Acute local effects, Acute systemic effects, Long-term local effects, Long-term systemic effects | 68 mg/m ³ |
| Workers | Skin contact | Long-term systemic effects | 32.2 mg/kg BW/d |
| Consumers | Inhalation | Acute local effects, Acute systemic effects | 220 mg/m ³ |
| Consumers | Inhalation | Long-term systemic effects | 4.8 mg/m ³ |

Predicted No Effect Concentration (PNEC)

Acetonitrile, CAS No. 75-05-8

| Compartment | Value |
|-------------------------------|-------------|
| Water | 10 mg/l |
| Soil | 23.5 mg/kg |
| Marine water | 15.4 mg/l |
| Fresh water | 154 mg/l |
| Fresh water sediment | 570.4 mg/kg |
| Onsite sewage treatment plant | 100 mg/kg |

8.2 Exposure controls:

Appropriate engineering controls: Provide adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. Keep away from food and beverages.

Personal protective equipment

Eye protection: Use face shield and safety glasses tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection: Handle with chemical resistant gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Respiratory protection: No data are available for respiratory measures for this mixture, but use a chemical fume hood or approved respiratory protection equipment.

Body protection: Lightweight, protective clothing to prevent skin exposure.

Section 9: Physical and Chemical Properties

9.1 Information on basic physical and chemical properties of mixture

Appearance: Multiple

Odor: Characteristic

Odor Threshold: No data available

pH: Multiple

Melting point/freezing point: No data available

Initial boiling point and boiling range: No data available

Flash point: No data available

Evaporation rate: No data available

Flammability (solid, gas): No data available

Upper/lower flammability or explosive limits: No data available

Vapor pressure: No data available

Vapor density: No data available

Relative density: No data available

Water solubility: Various

Partition coefficient: n-octanol/water: No data available

Auto-ignition temperature: Not applicable

Decomposition temperature: No data available

Viscosity: No data available

Explosive properties: No data available

Oxidizing properties: No data available

9.2 Other information: No data available

Section 10: Stability and Reactivity

10.1 Reactivity: No data available

10.2 Chemical stability: Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions: Vapors may form explosive mixture with air.

10.4 Conditions to avoid: Keep away from open flame, hot surfaces, heat sources, and sources of ignition.

10.5 Incompatible materials: Acids, bases, oxidizing agents, reducing agents, alkali metals

10.6 Hazardous decomposition products: No data available. In the event of fire: see section 5.

Section 11: Toxicological Information

11.1 Information on toxicological effects

To the best of our knowledge, the chemical, physical, and toxicological properties of this product have not been thoroughly investigated.

Acute toxicity (Acetonitrile, CAS No. 75-05-8):

Inhalation LC50 Inhalation - Mouse - 4 h - 3587 ppm (OECD Test Guideline 403); LC50 Inhalation - Rat - 4 h - 26.8 mg/l

Ingestion LD50 Oral - Rat - male - 1,320 - 6,690 mg/kg

Skin contact LD50 Dermal - Rabbit - male and female - > 2,000 mg/kg (OECD Test Guideline 402); Irritation (Rabbit) Result: No skin irritation (OECD Test Guideline 404)

Eye contact Rabbit--Result: Irritating to eyes (OECD Test Guideline 405)

Respiratory or skin sensitization Buehler Test (Guinea pig) Did not cause sensitization (OECD Test Guideline 406)

Aspiration hazard No data available

Mutagenicity (Acetonitrile, CAS No. 75-05-8): Hamster ovary Result: negative, mutation in mammalian somatic cells; Ames test (*S. typhimurium*) Result: Not mutagenic; Hamster ovary Result: Equivocal evidence. Sister chromatid exchange; Mutagenicity (micronucleus test) Mouse Result: Positive results were obtained in some *in vivo* tests.

Carcinogenicity:

No evidence of carcinogenicity in animal studies.

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Teratogenicity: No data available

Reproductive/fertility toxicity (Acetonitrile, CAS No. 75-05-8): Animal testing did not show any effects on fertility.

Specific target organ toxicity, single exposure: The substance or mixture is not classified as specific target organ toxicant, single exposure.

Specific target organ toxicity, repeated exposure: The substance or mixture is not classified as specific target organ toxicant, repeated exposure.

Additional information (Acetonitrile, CAS No. 75-05-8): RTECS: AL7700000 Treat as cyanide poisoning. Always have on hand a cyanide first-aid kit, together with proper instructions. The onset of symptoms is generally delayed pending conversion to cyanide. Nausea, vomiting, diarrhea, headache, dizziness, rash, cyanosis, excitement, depression, drowsiness, impaired judgment, lack of coordination, stupor, death

Section 12: Ecological Information

12.1 Toxicity: Toxicity to fish: LC50 - *Pimephales promelas* (fathead minnow) - 1,640.00 mg/l - 96 h; NOEC - *Oryzias latipes* - 102 mg/l - 21 d; Toxicity to daphnia and other aquatic invertebrates: EC50 - *Daphnia magna* (Water flea) - 3,600 mg/l - 48 h (OECD Test Guideline 202); NOEC - *Daphnia magna* (Water flea) - 160 mg/l - 21 d

12.2 Persistence and degradability: Readily biodegradable

12.3 Bioaccumulative potential: No bioaccumulation is to be expected

12.4 Mobility in soil: Not expected to adsorb on soil

12.5 Results of PBT and vPvB assessment: No data available

12.6 Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Section 13: Disposal Considerations

13.1 Waste treatment methods

Product: All waste must be handled and disposed according to local, state, and federal regulations. Avoid disposing large volumes in sewer.

Contaminated packaging: All waste must be handled and disposed according to local, state, and federal regulations.

Refer to sections 7 and 8 for safe handling guidance.

Section 14: Transport Information

DOT, Land Transport ADR/RID (cross-border), Maritime Transport IMDG, Air Transport ICAO-TI and IATA-DGR

UN Number: 3316

UN Proper shipping name: Chemical Kit, (contains Acetonitrile)

Transport hazard class(es): 9

Packing group: III

Environmental hazard: See section 12

Bulk transport: Excepted/Limited quantity

Special considerations: See section 7 for handling

Section 15: Regulatory Information

EU Regulations, Hazard Symbol(s): Acetonitrile: Xn (Harmful), F (Highly Flammable)

EU Risk and Safety Phrases:

Acetonitrile: R 11 / 20 / 21 / 22 / 36, S 16 / 36 / 37, Highly flammable; harmful by inhalation, in contact with skin, or if swallowed; irritating to eyes; keep away from sources of ignition; wear suitable protective clothing and gloves.

SARA Title III, Section 302 Components: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA Title III, Section 313 Components: Acetonitrile, CAS No. 75-05-8

SARA 311/312 Hazards: Acetonitrile, CAS No. 75-05-8: Fire Hazard, Acute Health Hazard

State Right-to-Know

Massachusetts: Acetonitrile, CAS No. 75-05-8

Pennsylvania: Acetonitrile, CAS No. 75-05-8

New Jersey: Acetonitrile, CAS No. 75-05-8

Section 16: Other information

This information is based on our present knowledge. While Gold Standard Diagnostics believes that the data contained herein are factual and the opinions expressed represent a best effort to present accurate information, the data are not to be taken as a warranty or representation for which Gold Standard Diagnostics assumes legal responsibility. The information shall not be taken as being all-inclusive and is to be used only as a guide. The data are offered solely for the user's consideration, investigation, and verification. These suggestions should not be confused with either state, municipal, or insurance requirements, or with national safety codes and constitute no warranty. Any use of these data and information must be determined by the user to be in accordance with applicable federal, state, and local regulations.

All materials and mixtures may present unknown hazards and should be used with caution. Since Gold Standard Diagnostics cannot control the methods, volumes, or conditions of use of this product, Gold Standard Diagnostics shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material. This product is sold for research use only. It is not for any human or animal therapeutic or clinical diagnostic use.

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