



## 1. Identification

<b>Product identifier</b>	TSL-108-10/TS-108-10
<b>Other means of identification</b>	
<b>Description</b>	Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, and Aflatoxin G2 in Acetonitrile
<b>Synonyms</b>	Laboratory standard
<b>Recommended use</b>	Reference standard for analytical use.
<b>Recommended restrictions</b>	Use in accordance with manufacturer's recommendations.
<b>Manufacturer/Supplier information</b>	
<b>Company Name</b>	Trilogy Analytical Laboratory, Inc
<b>Address</b>	870 Vossbrink Dr Washington, MO 63090
<b>Phone</b>	(636) 239-1521
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## 2. Hazard(s) identification

**GHS classification is accordance with 29 CFR 1910 (OSHA HCS)**

Flammable liquids (Category 2), H225  
 Acute toxicity, Oral (Category 4), H302  
 Acute toxicity, Inhalation (Category 4), H332  
 Eye irritation (Category 2A), H319  
 Specific target organ toxicity – single exposure, Central nervous system (Category 1), H370



### GHS label elements

<b>Signal Word</b>	Danger
<b>Hazard statement(s)</b>	H225 Highly flammable liquid and vapor. H302 + H332 Harmful if swallowed or if inhaled. H319 Causes serious eye irritation. H370 Causes damage to organs.
<b>Precautionary statement(s)</b>	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. P260 Do not breathe dust/fumes/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/protective clothing.  
P301 + P312 + P330 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell. Rinse mouth.  
P303 + P361 + P353 IF ON SKIN (or hair): 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/doctor 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.  
P307 + P311 IF exposed: call a POISON CENTER/doctor.  
P337 + P313 IF eye irritation persists: Get medical advice/attention.  
P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.  
P403 + P235 Store in a well-ventilated place. Keep cool.  
P405 Store locked up.  
P501 Dispose of contents/container to an approved waste disposal plant.

#### **Carcinogenicity**

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, IARC, or OSHA.

### **3. Composition/Information on ingredients**

#### **Mixtures**

<b>Chemical name</b>	<b>CAS number</b>	<b>%</b>
Aflatoxin B1	1162-65-8	< 0.1
Aflatoxin B2	7220-81-7	< 0.1
Aflatoxin G1	1165-39-5	< 0.1
Aflatoxin G2	7241-98-7	< 0.1
Acetonitrile	75-05-8	99.9

### **4. First aid measures**

#### **Inhalation**

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Use oxygen as required, provided a qualified operator is present. Call a physician.

#### **Skin contact**

Wash off immediately with plenty of water for at least 15 minutes. Take off contaminated clothing and shoes immediately. Wash contaminated clothing before re-use. Call a physician.



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**Eye contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Call a physician.

**Ingestion** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Immediate medical attention is required.

**Notes to physician/Indication of immediate medical attention and special treatment needed, if necessary**  
Treat as cyanide poisoning. Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours.

## 5. Firefighting measures

### Suitable extinguishing media

Carbon dioxide (CO<sub>2</sub>)  
Dry chemical  
Alcohol-resistant foam  
Cool closed containers exposed to fire with water spray.

### Unsuitable extinguishing media

Do not use a solid water stream as it may scatter and spread fire.

### Specific hazards during firefighting

Flammable.  
Vapors may form explosive mixtures with air.  
Vapors are heavier than air and may spread along floors.  
Vapors may travel to areas away from work site before igniting/flashing back to vapor source.  
In case of fire hazardous decomposition products may be produced such as:  
Hydrogen cyanide (hydrocyanic acid)  
Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

### Special protective equipment for firefighters

Wear self-contained breathing apparatus and protective suit.

### Further information

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

Wear personal protective equipment.  
Immediately evacuate personnel to safe areas.  
Keep people away from and upwind of spill/leak.  
Ensure adequate ventilation.



Remove all sources of ignition.  
Do not breathe vapors or spray mist.  
Avoid contact with skin, eyes and clothing.

#### **Environmental precautions**

Prevent further leakage or spillage if safe to do so.  
Discharge into the environment must be avoided.  
Do not flush into surface water or sanitary sewer system.  
Do not allow run-off from firefighting to enter drains or water courses.

#### **Methods and materials for containment and cleaning up**

Ventilate the area.  
No sparking tools should be used.  
Use explosion-proof equipment.  
Contain spillage, soak up with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and transfer to a container for disposal according to local / national regulations (see section 13).

## **7. Handling and storage**

#### **Precautions for safe handling**

Wear personal protective equipment.  
Use only in well-ventilated areas.  
Keep container tightly closed.  
Do not smoke.  
Do not breathe vapors or spray mist.  
Avoid contact with skin, eyes and clothing.

#### **Advice on protection against fire and explosion**

Keep away from fire, sparks and heated surfaces.  
Take precautionary measures against static discharges.  
Ensure all equipment is electrically grounded before beginning transfer operations.  
Use explosion-proof equipment.  
Keep product and empty container away from heat and sources of ignition.  
No sparking tools should be used.  
No smoking.

#### **Conditions for safe storage, including any incompatibilities**

Store in area designed for storage of flammable liquids. Protect from physical damage.  
Keep containers tightly closed in a dry, cool and well-ventilated place.



Containers which are opened must be carefully resealed and kept upright to prevent leakage.  
Keep away from heat and sources of ignition.  
Keep away from direct sunlight.  
Store away from incompatible substances.  
Container hazardous when empty.  
Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition.

## 8. Exposure controls/personal protection

<b>Protective measures</b>	Ensure that eyewash stations and safety showers are close to the workstation location.
<b>Engineering measures</b>	Use with local exhaust ventilation. Prevent vapor buildup by providing adequate ventilation during and after use.
<b>Eye protection</b>	Do not wear contact lenses. Wear as appropriate: Safety glasses with side-shields If splashes are likely to occur, wear: Goggles or face shield, giving complete protection to eyes
<b>Hand protection</b>	Solvent-resistant gloves Gloves must be inspected prior to use. Replace when worn.
<b>Skin and body protection</b>	Wear as appropriate: Solvent-resistant apron Flame retardant antistatic protective clothing. If splashes are likely to occur, wear: Protective suit
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment. For rescue and maintenance work in storage tanks use self-contained breathing apparatus. Use NIOSH approved respiratory protection.
<b>Hygiene measures</b>	When using do not eat, drink or smoke. Wash hands before breaks and immediately after handling the product. Keep working clothes separately. Remove and wash contaminated clothing before re-use. Do not breathe vapors or spray mist. Avoid contact with skin, eyes and clothing.



### Exposure Guidelines

Components	CAS-No.	Value	Control Parameters	Update	Basis
Acetonitrile	75-05-8	TWA: Time weighted average	(20 ppm)	2008	ACGIH: US. ACGIH Threshold Limit Values
Acetonitrile	75-05-8	SKIN_DES: Skin designation	Can be absorbed through the skin.	2008	ACGIH: US. ACGIH Threshold Limit Values
Acetonitrile	75-05-8	REL: Recommended exposure limit	34 mg/m3 (20 ppm)	2005	NIOSH: US. NIOSH Pocket Guide to Chemical Hazards
Acetonitrile	75-05-8	PEL: Permissible exposure limit	70 mg/m3 (40 ppm)	2006	OSHA_TRANS: US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)
Acetonitrile	75-05-8	TWA: Time weighted average	70 mg/m3 (40 ppm)	1989	Z1A: US. OSHA Table Z-1-A (29 CFR 1910.1000)
Acetonitrile	75-05-8	STEL: Short term exposure limit	105 mg/m3 (60 ppm)	1989	Z1A: US. OSHA Table Z-1-A (29 CFR 1910.1000)

### 9. Physical and chemical properties

<b>Physical state</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Mild solvent odor
<b>Odor threshold</b>	No data available
<b>pH</b>	No data available
<b>Melting point/range</b>	No data available
<b>Boiling point/boiling range</b>	No data available

<b>Flash point</b>	No data available
<b>Evaporation rate</b>	No data available
<b>Lower explosion limit</b>	No data available
<b>Upper explosion limit</b>	No data available
<b>Vapor pressure</b>	No data available
<b>Vapor density</b>	No data available
<b>Density</b>	No data available
<b>Water solubility</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Ignition temperature</b>	No data available
<b>Viscosity, dynamic</b>	No data available
<b>Viscosity, kinematic</b>	No data available
<b>Molecular weight</b>	No data available

## 10. Stability and reactivity

**Chemical stability** Stable under normal conditions.

### Possibility of hazardous reactions

Hazardous polymerization does not occur.

**Conditions to avoid** Heat, flames and sparks.

Keep away from direct sunlight.

### Incompatible materials

Acids

Bases

Oxidizing agents

Reducing agents

Sulfites

Perchlorates

May attack many plastics, rubbers and coatings.

### Hazardous decomposition products

In case of fire hazardous decomposition products may be produced such as:

Hydrogen cyanide (hydrocyanic acid)

Carbon dioxide (CO<sub>2</sub>), carbon monoxide (CO), oxides of nitrogen (NO<sub>x</sub>), dense black smoke.

## 11. Toxicological information

<b>Acute oral toxicity</b>	LD50: 617 mg/kg Species: Mouse, male and female Method: OECD Test Guideline 401
<b>Acute inhalation toxicity</b>	LC50: 3587 ppm, vapor Exposure time: 4 h Species: Mouse, male and female Method: OECD Test Guideline 403
<b>Acute dermal toxicity</b>	LD50: > 2,000 mg/kg Species: Rabbit
<b>Skin irritation</b>	Species: Rabbit Result: No skin irritation Method: OECD Test Guideline 404 Exposure time: 4 h
<b>Eye irritation</b>	Species: Rabbit Result: Irritating to eyes. Method: OECD Test Guideline 405
<b>Sensitization</b>	Buehler Test Species: Guinea pig Result: Did not cause sensitization on laboratory animals. Method: OECD Test Guideline 406
<b>Further information</b>	STOT - single exposure: The substance or mixture is classified as specific target organ toxicant, single exposure, category 1. May cause convulsions. May cause neurotoxic effects. Based on Human Evidence.

## 12. Ecological information

<b>Toxicity to fish</b>	Flow-through test LC50: 1,640 mg/l Exposure time: 96 h Species: Pimephales promelas (fathead minnow)
<b>Toxicity to algae</b>	Static test NOEC: 400 mg/l Exposure time: 72 h Species: Phaeodactylum tricornutum Static test ErC50: 9,696 mg/l





Exposure time: 72 h  
Species: Phaeodactylum tricornutum

### 13. Disposal considerations

**Disposal methods** Observe all Federal, State, and Local Environmental regulations.

### 14. Transport information

#### DOT

<b>UN/ID No.</b>	UN 1648
<b>Proper shipping name</b>	ACETONITRILE
<b>Class</b>	3
<b>Packing group</b>	II
<b>Hazard labels</b>	3

#### IATA

<b>UN/ID No.</b>	UN 1648
<b>Description of the goods</b>	ACETONITRILE
<b>Class</b>	3
<b>Packaging group</b>	II
<b>Hazard labels</b>	3
<b>Packing instruction (cargo aircraft)</b>	364
<b>Packing instruction (passenger aircraft)</b>	353
<b>Packing instruction (passenger aircraft)</b>	Y341

#### IMDG

<b>UN/ID No.</b>	UN 1648
<b>Description of the goods</b>	ACETONITRILE
<b>Class</b>	3
<b>Packaging group</b>	II
<b>Hazard labels</b>	3
<b>EmS number</b>	F-E, S-D
<b>Marine pollutant</b>	No



## 15. Regulatory information

<b>SARA 302 Components</b>	No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
<b>SARA 313 Components</b>	The following components are subject to reporting levels established by SARA Title III, Section 313: Acetonitrile 75-05-8
<b>SARA 311/312 Hazards</b>	Fire Hazard Acute Health Hazard Chronic Health Hazard
<b>California Prop. 65</b>	WARNING: This product can expose you to chemicals, listed below, known to the State of California to cause cancer. For more information go to <a href="http://www.P65Warnings.ca.gov">www.P65Warnings.ca.gov</a> . Acrylonitrile 107-13-1
<b>Massachusetts RTK</b>	Acetonitrile 75-05-8
<b>New Jersey RTK</b>	Acetonitrile 75-05-8
<b>Pennsylvania RTK</b>	Acetonitrile 75-05-8

## 16. Other information

	<b>HMIS III</b>	<b>NFPA</b>
<b>Health hazard</b>	2*	2
<b>Flammability</b>	3	3
<b>Physical hazard</b>	0	
<b>Instability</b>		0

\* - Chronic health hazard

Hazard rating and rating systems (e.g. HMIS® III, NFPA): This information is intended solely for the use of individuals trained in the particular system.



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**Further information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Trilogy Analytical Laboratory shall not be held liable for any damage resulting from handling or from contact with the above product. These suggestions should not be confused with any state, municipal, or insurance requirements, and constitute no warranty.

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