Safety Data Sheet

Trilogy Analytical Laboratory
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1. Identification

Product identifier TSL-108-10/TS-108-10/TAS-MM11LA1-10

Other means of identification

Description Aflatoxin B1, Aflatoxin B2, Aflatoxin G1, and Aflatoxin G2 in Acetonitrile

Synonyms Laboratory standard

Recommended use Reference standard for analytical use.

Recommended restrictions Use in accordance with manufacturer's recommendations.

Manufacturer/Supplier information

Company Name Trilogy Analytical Laboratory, Inc

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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



Signal Word Danger

Hazard statement(s)
H225 Highly flammable liquid and vapor.
H302 + H332 Harmful if swallowed or if inhaled.
H319 Causes serious eye irritation.
H370 Causes damage to organs.

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.
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

Chemical name	CAS number	%
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.

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 (CO2)

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 (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), 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

Protective measures	Ensure that eyewash stations and safety showers are close to the workstation location.
Engineering measures	Use with local exhaust ventilation.
	Prevent vapor buildup by providing adequate ventilation during and after use.
Eye protection	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
Hand protection	Solvent-resistant gloves
	Gloves must be inspected prior to use.
	Replace when worn.
Skin and body protection	Wear as appropriate:
	Solvent-resistant apron
	Flame retardant antistatic protective clothing.
	If splashes are likely to occur, wear:
	Protective suit
Respiratory protection	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.
Hygiene measures	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

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

Flash point	No data available
Evaporation rate	No data available
Lower explosion limit	No data available
Upper explosion limit	No data available
Vapor pressure	No data available
Vapor density	No data available
Density	No data available
Water solubility	No data available
Partition coefficient: n-octanol/water	
	No data available
Ignition temperature	No data available
Viscosity, dynamic	No data available
Viscosity, kinematic	No data available
Molecular weight	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 (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

11. Toxicological information

Acute oral toxicity	LD50: 617 mg/kg
	Species: Mouse, male and female
	Method: OECD Test Guideline 401
Acute inhalation toxicity	LC50: 3587 ppm, vapor
	Exposure time: 4 h
	Species: Mouse, male and female
	Method: OECD Test Guideline 403
Acute dermal toxicity	LD50: > 2,000 mg/kg
	Species: Rabbit
Skin irritation	Species: Rabbit
	Result: No skin irritation
	Method: OECD Test Guideline 404
	Exposure time: 4 h
Eye irritation	Species: Rabbit
	Result: Irritating to eyes.
	Method: OECD Test Guideline 405
Sensitization	Buehler Test
	Species: Guinea pig
	Result: Did not cause sensitization on laboratory animals.
	Method: OECD Test Guideline 406
Further information	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

Toxicity to fish	Flow-through test
	LC50: 1,640 mg/l
	Exposure time: 96 h
	Species: Pimephales promelas (fathead minnow)
Toxicity to algae	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

UN/ID No. UN 1648

Proper shipping name

ACETONITRILE

Class 3

Packing group II

Hazard labels 3

IATA

UN/ID No. UN 1648

Description of the goods

ACETONITRILE

Class 3

Packaging group II

Hazard labels 3

Packing instruction (cargo aircraft)

364

Packing instruction (passenger aircraft)

353

Packing instruction (passenger aircraft)

Y341

IMDG

UN/ID No. UN 1648

Description of the goods

ACETONITRILE

Class 3

Packaging group II

Hazard labels 3

EmS number F-E, S-D

Marine pollutant No

15. Regulatory information

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

16. Other information

	HMIS III	**NFPA**
Health hazard	2*	2
Flammability	3	3
Physical hazard	0	
Instability		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.

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.

Trilogy Analytical Laboratory

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