

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision date: 06/16/2015 Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product form : Substance Trade name : ACETONITRILE

CAS No 75-05-8 Product code : AB00120 Formula : C2H3N

Relevant identified uses of the substance or mixture and uses advised against 1.2.

Use of the substance/mixture : Laboratory use/Manufacturing component/Research

Use of the substance/mixture Laboratory chemical

Solvent

Chemical raw material

Pesticide: intermediate product

Stabilizer Catalyst

Details of the supplier of the safety data sheet

AmericanBio, Inc. 15 Erie Dr.

Natick, MA 01760 - USA

T 800.443.0600 - F 508.655.2754

info@americanbio.com - www.americanbio.com

Emergency telephone number

: 855.835.2572 (U.S.) :: 760.602.8703 (Outside U.S.) **Emergency number**

SECTION 2: Hazards identification

Classification of the substance or mixture

Classification (GHS-US)

Flam. Liq. 2 H225 Acute Tox. 4 (Oral) H302 Acute Tox. 3 (Dermal) H311 Acute Tox. 4 (Inhalation:vapour) H332

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)





GHS02

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) H225 - Highly flammable liquid and vapor

H302 - Harmful if swallowed H312 - Harmful in contact with skin H319 - Causes serious eye irritation

H332 - Harmful if inhaled

Precautionary statements (GHS-US) : P210 - Keep away from open flames, sparks, heat, hot surfaces. - No smoking

P233 - Keep container tightly closed

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical, ventilating, and lighting equipment equipment

P242 - Use only non-sparking tools

P243 - Take precautionary measures against static discharge P261 - Avoid breathing fume, vapors, dust, gas, mist

P264 - Wash hands 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 eye protection, face protection, protective gloves

06/17/2015 EN (English US) Page 1

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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

P304+P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

P312 - Call a POISON CENTER/doctor/physician if you feel unwell

P330 - If swallowed, rinse mouth

P361 - Remove/Take off immediately all contaminated clothing

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

P405 - Store locked up

P501 - Dispose of contents/container to an approved waste disposal plant

P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Seek medical attention.

P321 - Specific treatment (see first aid measures on this label)
P337+P313 - If eye irritation persists: Get medical advice/attention

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

| Name | Product identifier | % | Classification (GHS-US) |
|---------------------------------|--------------------|-----|---|
| ACETONITRILE (Main constituent) | (CAS No) 75-05-8 | 100 | Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 4 (Inhalation:vapour), H332 |

Full text of H-phrases: see section 16

3.2. Mixture

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with laboured breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain. Depending on the victim's condition: doctor/hospital. Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation

Remove the victim into fresh air. Do not apply mouth-to-mouth resuscitation. Respiratory problems: consult a doctor/medical service. Assure fresh air breathing. Allow the victim to rest. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

First-aid measures after skin contact

: Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Take victim to a doctor if irritation persists. Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor/physician. Wash with plenty of soap and water. Specific measures (see Consult a doctor/medical service on this label). Wash contaminated clothing before reuse.

First-aid measures after eye contact

: Rinse immediately with plenty of water. Take victim to an ophthalmologist if irritation persists. Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist.

First-aid measures after ingestion

: Rinse mouth with water. Immediately after ingestion: give lots of water to drink. Do not induce vomiting. Call Poison Information Centre (www.big.be/antigif.htm). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Take the container/vomit to the doctor/hospital. Doctor: administration of chemical antidote. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor/physician if you feel unwell.

06/17/2015 EN (English US) 2/10

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation

: EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. FOLLOWING SYMPTOMS MAY APPEAR LATER: Feeling of weakness. Headache. Dizziness. Mental confusion. Nausea. Vomiting. Change in the haemogramme/blood composition. Increased salivation. Disturbances of heart rate. Respiratory difficulties. Disturbances of consciousness. Cramps/uncontrolled muscular contractions. Risk of lung oedema. Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled.

Symptoms/injuries after skin contact

: FOLLOWING SYMPTOMS MAY APPEAR LATER: Symptoms similar to those listed under inhalation. Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.

Symptoms/injuries after eye contact

Symptoms/injuries after ingestion

: Irritation of the eye tissue.

: Risk of aspiration pneumonia. FOLLOWING SYMPTOMS MAY APPEAR LATER: Symptoms similar to those listed under inhalation. Swallowing a small quantity of this material will result in serious health hazard.

Chronic symptoms

ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: No specific information available. SIMILAR PRODUCTS CAUSE FOLLOWING SYMPTOMS: Runny nose. Feeling of weakness. Headache. Dizziness. Gastrointestinal complaints. Loss of appetite. Loss of weight.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

suitable extinguishing media

- : Alcohol-resistant foam. BC powder. Carbon dioxide. MAJOR FIRE: Water spray. Polyvalent
- foam. Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media

: Solid water jet ineffective as extinguishing medium. Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard

: DIRECT FIRE HAZARD. Highly flammable. Gas/vapour flammable with air within explosion limits. INDIRECT FIRE HAZARD. May build up electrostatic charges: risk of ignition. May be ignited by sparks. Gas/vapour spreads at floor level: ignition hazard. Reactions involving a fire hazard: see "Reactivity Hazard". Highly flammable liquid and vapor.

Explosion hazard

DIRECT EXPLOSION HAZARD. Gas/vapour explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard". May form flammable/explosive vapor-air mixture.

Reactivity

Reacts slowly with water (moisture): release of corrosive gases/vapours (ammonia, nitrous vapours). On heating: release of toxic/combustible gases/vapours (hydrogen cyanide). On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide). Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts violently with (strong) reducers. Violent exothermic reaction with (some) acids: release of toxic and corrosive gases/vapours (nitrous vapours).

5.3. Advice for firefighters

Firefighting instructions

: Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Dilute toxic gases with water spray. Take account of environmentally hazardous firefighting water. Use water moderately and if possible collect or contain it. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) firefighting water to enter environment.

Protection during firefighting

Heat/fire exposure: compressed air/oxygen apparatus. Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures

: Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

6.1.1. For non-emergency personnel

Protective equipment

: Gloves. Protective goggles. Head/neck protection. Protective clothing. Large spills/in enclosed spaces: compressed air apparatus. Large spills/in enclosed spaces: gas-tight suit. Reactivity hazard: compressed air/oxygen apparatus. Reactivity hazard: gas-tight suit.

Emergency procedures

: Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosionproof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes. Evacuate unnecessary personnel.

06/17/2015 EN (English US) 3/10

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and material for containment and cleaning up

For containment

: Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute/disperse combustible gas/vapour with water curtain. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills.

Methods for cleaning up

Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

Precautions for safe handling

Additional hazards when processed

- : Handle empty containers with care because residual vapors are flammable.
- Precautions for safe handling
- : Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Avoid contact of substance with water. Observe normal hygiene standards. Keep container tightly closed. Measure the concentration in the air regularly. Work under local exhaust/ventilation. Wash hands and other exposed areas with mild soap and water before eat. drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor. No naked lights. No smoking. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Avoid breathing fume/mist/vapours.

Hygiene measures

: Do not eat, drink or smoke when using this product.

Conditions for safe storage, including any incompatibilities 7.2.

Technical measures

: Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical/lighting equipment.

Storage conditions

Keep only in the original container in a cool, well ventilated place away from: Direct sunlight...

Incompatible products

Heat sources. Keep in fireproof place. Keep container tightly closed.

: Strong bases, strong acids.

Incompatible materials

: Sources of ignition. Direct sunlight. Heat sources.

Heat-ignition

- : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.
- Prohibitions on mixed storage
- : KEEP SUBSTANCE AWAY FROM: oxidizing agents. reducing agents. (strong) acids. (strong) bases. water/moisture.

Storage area

Store in a dry area. Ventilation at floor level. Fireproof storeroom. Provide for a tub to collect spills. Provide the tank with earthing. Store at ambient temperature. Keep out of direct sunlight. Meet the legal requirements.

Special rules on packaging

SPECIAL REQUIREMENTS: hermetical. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials

SUITABLE MATERIAL: stainless steel. aluminium. iron. polyethylene. glass. MATERIAL TO AVOID: copper. plastics.

Specific end use(s)

No additional information available

06/17/2015 EN (English US) 4/10

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| ACETONITRILE (75-05-8) | | |
|------------------------|------------------|--------|
| USA ACGIH | ACGIH TWA (ppm) | 20 ppm |
| USA ACGIH | ACGIH STEL (ppm) | 20 ppm |

8.2. Exposure controls

Personal protective equipment : Avoid all unnecessary exposure.

Materials for protective clothing : GIVE GOOD RESISTANCE: butyl rubber. chlorinated polyethylene. tetrafluoroethylene.

neoprene/butyl rubber. neoprene/natural rubber. polyethylene/ethylenevinylalcohol. GIVE LESS RESISTANCE: PVA. GIVE POOR RESISTANCE: nitrile rubber. polyethylene. natural rubber.

neoprene. PVC. viton.

Hand protection : Gloves. Wear protective gloves.

Eye protection : Safety glasses. Chemical goggles or safety glasses.

Skin and body protection : Head/neck protection. Protective clothing.

Respiratory protection : Wear gas mask with filter type A if conc. in air > exposure limit. Wear approved mask.

Other information : When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Liquid.

Molecular mass : 41.05 g/mol

Color : Colourless.

Odor : Sweet odour. Aromatic odour. Ether-like odour.

Odor threshold : 42 ppm 70 mg/m³

70 mg/m²

pH : No data available

Relative evaporation rate (butyl acetate=1) : 5.8 Melting point : -46 °C

Freezing point : No data available

Flammability (solid, gas) : No data available

Vapor pressure : 97 hPa
Vapor pressure at 50 °C : 360 hPa
Critical pressure : 48320 hPa

Relative vapor density at 20 °C : 1.4

Relative density : 0.79 (20 °C)
Relative density of saturated gas/air mixture : 1.04
Density : 787 kg/m³

Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in chloroform.

 $Soluble\ in\ methylacetate.\ Soluble\ in\ dichloroethane.\ Soluble\ in\ tetrachloromethane.\ Soluble\ in$

tetrachloroethene. Soluble in methanol. Soluble in ethylacetate. Soluble in oils/fats. Water: Complete

Ethanol: Complete Ether: Complete Acetone: Complete 0.29 (25 °C)

Log Pow : 0.29 (25 °C)
Log Kow : No data available
Viscosity, kinematic : 3.80 mm²/s

Viscosity, dynamic : 0.0030 Pa.s (40 °C)

06/17/2015 EN (English US) 5/10

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Explosive properties : No data available

Oxidizing properties : No data available

Explosive limits : 3.0 - 16.0 vol %

50 - 274 g/m³

9.2. Other information

Specific conductivity : 60000 pS/m
Saturation concentration : 163 g/m³
VOC content : 100 %

Other properties : Gas/vapour heavier than air at 20°C. Clear. Volatile. Substance has neutral reaction. May

generate electrostatic charges.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reacts slowly with water (moisture): release of corrosive gases/vapours (ammonia, nitrous vapours). On heating: release of toxic/combustible gases/vapours (hydrogen cyanide). On burning: release of toxic and corrosive gases/vapours (nitrous vapours, carbon monoxide - carbon dioxide). Reacts violently with (strong) oxidizers: (increased) risk of fire/explosion. Reacts violently with (strong) reducers. Violent exothermic reaction with (some) acids: release of toxic and corrosive gases/vapours (nitrous vapours).

10.2. Chemical stability

Unstable on exposure to moisture. Not established. Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures. Open flame.

10.5. Incompatible materials

strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed. Toxic in contact with skin. Harmful if inhaled.

| ACETONITRILE (\f)75-05-8 | |
|----------------------------|--------------------|
| LD50 oral rat | > 1327 mg/kg (Rat) |
| LD50 dermal rabbit | 980 mg/kg (Rabbit) |
| LC50 inhalation rat (mg/l) | 27 mg/l/4h (Rat) |
| LC50 inhalation rat (ppm) | 16000 ppm/4h (Rat) |

Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated

exposure)

: Not classified

Aspiration hazard : Not classified

Potential Adverse human health effects and

symptoms

: Based on available data, the classification criteria are not met. Harmful if swallowed. Harmful if

inhaled. Toxic in contact with skin.

06/17/2015 EN (English US) 6/10

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

| | • |
|--------------------------------------|---|
| Symptoms/injuries after inhalation | : EXPOSURE TO HIGH CONCENTRATIONS: Irritation of the respiratory tract. Irritation of the nasal mucous membranes. FOLLOWING SYMPTOMS MAY APPEAR LATER: Feeling of weakness. Headache. Dizziness. Mental confusion. Nausea. Vomiting. Change in the haemogramme/blood composition. Increased salivation. Disturbances of heart rate. Respiratory difficulties. Disturbances of consciousness. Cramps/uncontrolled muscular contractions. Risk of lung oedema. Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. |
| Symptoms/injuries after skin contact | : FOLLOWING SYMPTOMS MAY APPEAR LATER: Symptoms similar to those listed under inhalation. Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin. |
| Symptoms/injuries after eye contact | : Irritation of the eye tissue. |
| Symptoms/injuries after ingestion | : Risk of aspiration pneumonia. FOLLOWING SYMPTOMS MAY APPEAR LATER: Symptoms similar to those listed under inhalation. Swallowing a small quantity of this material will result in serious health hazard. |
| Chronic symptoms | : ON CONTINUOUS/REPEATED EXPOSURE/CONTACT: No specific information available. SIMILAR PRODUCTS CAUSE FOLLOWING SYMPTOMS: Runny nose. Feeling of weakness. Headache. Dizziness. Gastrointestinal complaints. Loss of appetite. Loss of weight. |

SECTION 12: Ecological information

| SECTION 12. Ecological illiorillation | |
|---------------------------------------|--|
| 12.1. Toxicity | |
| Ecology - general | : Classification concerning the environment: not applicable. |
| Ecology - water | : Ground water pollutant. Maximum concentration in drinking water: 0.050 mg/l (cyanide) (Directive 98/83/EC). Not harmful to fishes (LC50(96h) >1000 mg/l). Not harmful to invertebrates (Daphnia) (EC50 (48h) > 1000 mg/l). Not harmful to algae (EC50 (72h) >1000 mg/l). Highly toxic to plankton. Not harmful to bacteria (EC50 >1000 mg/l). Inhibition of activated sludge. Nitrification of activated sludge isn't inhibited. |

| ACETONITRILE (75-05-8) | |
|---|--|
| LC50 fish 1 | 1640 mg/l (96 h; Pimephales promelas; Soft water) |
| LC50 other aquatic organisms 1 | > 1000 mg/l (96 h) |
| EC50 Daphnia 1 | > 1000 mg/l (48 h; Daphnia magna; GLP) |
| LC50 fish 2 | 1640 mg/l (96 h; Lepomis macrochirus; Soft water) |
| EC50 Daphnia 2 | 5838 mg/l (16 h; Daphnia pulex) |
| TLM fish 1 | 1000 mg/l (96 h; Pimephales promelas; Soft water) |
| TLM fish 2 | 1650 mg/l (96 h; Poecilia reticulata; Soft water) |
| TLM other aquatic organisms 1 | 1000 ppm (96 h) |
| Threshold limit other aquatic organisms 1 | > 1000 mg/l (96 h; Pseudomonas putida) |
| Threshold limit other aquatic organisms 2 | 680 mg/l (16 h; Protozoa) |
| Threshold limit algae 1 | 9696 mg/l (72 h; Phaeodactylum; Growth rate) |
| Threshold limit algae 2 | > 1000 mg/l (72 h; Pseudokirchneriella subcapitata; Growth rate) |

12.2. Persistence and degradability

| ACETONITRILE (75-05-8) | | |
|---------------------------------|--|--|
| Persistence and degradability | Readily biodegradable in water. No (test)data on mobility of the substance available. Not established. | |
| Biochemical oxygen demand (BOD) | 0.17 g O ² /g substance | |
| ThOD | 3.12 g O²/g substance | |
| BOD (% of ThOD) | 0.055 % ThOD | |

12.3. Bioaccumulative potential

| ACETONITRILE (75-05-8) | |
|-------------------------------|---|
| BCF other aquatic organisms 1 | 3.162 |
| Log Pow | 0.29 (25 °C) |
| Bioaccumulative potential | Low potential for bioaccumulation (Log Kow < 4). Not established. |

12.4. Mobility in soil

| ACETONITRILE (75-05-8) | |
|------------------------|-------------------|
| Surface tension | 0.029 N/m (20 °C) |

12.5. Other adverse effects

| Other information | : | Avoid release to the environment. |
|-------------------|---|-----------------------------------|
|-------------------|---|-----------------------------------|

06/17/2015 EN (English US) 7/10

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations

: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Do not landfill. Remove to an authorized waste incinerator for solvents with energy recovery. Do not discharge into drains or the environment. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to local/federal regulations.

Additional information : LWCA (the Netherlands): KGA category 06. Hazardous waste according to Directive

2008/98/EC. Handle empty containers with care because residual vapors are flammable.

Ecology - waste materials : Hazardous waste due to toxicity. Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1648 Acetonitrile, 3, II

UN-No.(DOT) : 1648
DOT NA no. : UN1648
DOT Proper Shipping Name : Acetonitrile

Department of Transportation (DOT) Hazard

Classes

Hazard labels (DOT) : 3 - Flammable liquid

3

Packing group (DOT) : II - Medium Danger

DOT Special Provisions (49 CFR 172.102) : IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110

kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.

T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3)

: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59)

F) and 50 C (122 F), respectively.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Quantity Limitations Passenger aircraft/rail : 5L
(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this

section is exceeded.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Additional information

Other information : No supplementary information available.

State during transport (ADR-RID) : as liquid.

06/17/2015 EN (English US) 8/10

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

ADR

Transport document description : UN 1648, 3, II, (D/E)

Packing group (ADR) : II

Class (ADR) : 3 - Flammable liquid

Hazard identification number (Kemler No.) : 33 Classification code (ADR) : F1

Danger labels (ADR) : 3 - Flammable liquids



Orange plates

33 1648

Tunnel restriction code : D/E

Transport by sea

UN-No. (IMDG) : 1648

Class (IMDG) : 3 - Flammable liquids

EmS-No. (1) : F-E EmS-No. (2) : S-D

Air transport

UN-No.(IATA) : 1648

Class (IATA) : 3 - Flammable Liquids
Packing group (IATA) : II - Medium Danger

SECTION 15: Regulatory information

15.1. US Federal regulations

| ACETONITRILE (75-05-8) | |
|---|--|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory | |
| Listed on SARA Section 313 (Specific toxic chemical listings) | |
| RQ (Reportable quantity, section 304 of EPA's 5000 lb | |
| List of Lists): | |

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 2 H225 Acute Tox. 3 (Dermal) H311 Acute Tox. 4 (Inhalation) H332 Acute Tox. 4 (Oral) H302 Eye Irrit. 2 H319

Full text of H-phrases: see section 16

06/17/2015 EN (English US) 9/10

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Classification according to Directive 67/548/EEC or 1999/45/EC

F; R11 Xn; R20/21/22 Xi; R36

Full text of R-phrases: see section 16

15.2.2. National regulations

No additional information available

15.3. US State regulations

| ACETONITRILE(75-05-8) | | |
|----------------------------|--|--|
| State or local regulations | U.S Massachusetts - Right To Know List U.S New Jersey - Right to Know Hazardous Substance List U.S Pennsylvania - RTK (Right to Know) List | |

SECTION 16: Other information

Other information : None.

Full text of H-phrases: see section 16:

| Acute Tox. 3 (Dermal) | Acute toxicity (dermal) Category 3 |
|----------------------------------|---|
| Acute Tox. 4 (Inhalation:vapour) | Acute toxicity (inhalation:vapour) Category 4 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral) Category 4 |
| Flam. Liq. 2 | Flammable liquids Category 2 |
| H225 | Highly flammable liquid and vapor |
| H302 | Harmful if swallowed |
| H311 | Toxic in contact with skin |
| H332 | Harmful if inhaled |

NFPA health hazard : 2 - Intense or continued exposure could cause temporary

incapacitation or possible residual injury unless prompt

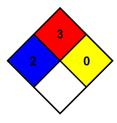
medical attention is given.

NFPA fire hazard : 3 - Liquids and solids that can be ignited under almost all

ambient conditions.

NFPA reactivity : 0 - Normally stable, even under fire exposure conditions,

and are not reactive with water.



SDS US (GHS HazCom 2012)

AmericanBio, Inc. does not make any representations, guaranties or warranties as to the accuracy of the information provided in this Safety Data Sheet, which has been provided by a third party, is made in accordance with United States Global Harmonization System (GHS) initiative HAZCOM 2012 (Federal Register, Vol. 77, No. 58, Monday March 26, 2012/Rules and Regulations), and is intended only to describe the product for the purposes of health, safety and environmental requirements. It is expressly understood and agreed that AmericanBio, Inc. shall in no way be deemed or held to be obligated, liable, or accountable upon or under any guaranties or warranties, express or implied, statutory, by operation of law, or otherwise, in any manner or form, including any implied warranty of merchantability or fitness for a particular purpose, that in any way relates to or arises out of the information provided in this Safety Data Sheet.

06/17/2015 EN (English US) 10/10