

## Safety Data Sheet

**Product No. 18612 Acetonitrile**

**Issue Date (05-26-15)**

**Review Date (08-31-17)**

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### Section 1: Product and Company Identification

**Product Name: Acetonitrile**

Synonym: Cyanomethane, ethanenitrile, ethyl nitrile, methanecarbonitrile, methyl cyanide.

**Company Name**

**Ted Pella, Inc., P.O. Box 492477, Redding, CA 96049-2477**

Inside USA and Canada 1-800-237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Outside USA and Canada 1-530-243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

**CHEMTREC USA and Canada Emergency Contact Number 1-800-424-9300 24 hours a day**

**CHEMTREC Outside USA and Canada Emergency Contact Number +1-703-741-5970 24 hours a day**

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### Section 2: Hazard Identification

GHS Pictograms:



GHS Categories:

GHS02: Flammable - H225, Highly flammable liquid and vapor.

GHS07: Irritant

Acute Tox. 4 - H302 Harmful if swallowed.

Acute Tox. 4 - H312 Harmful in contact with skin.

Acute Tox. 4 - H332 Harmful if inhaled.

Eye Irrit. 2 - H319 Causes serious eye irritation

**Label elements:**

**Signal Word: DANGER**

**Hazard Statements:**

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 statements:**

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

P241      Use explosion-proof electrical/ventilating/lighting/equipment.

P261      Avoid breathing dust/fume/gas/mist/vapors/spray.

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

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

P501      Dispose of contents/container in accordance with local/regional/national/international regulations.

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

Label: Xn - Harmful

R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

Label: Xi - Irritant

R36: Irritating to eyes

Label: F - Highly flammable

R11: Highly flammable

**Risk phrases:**

Highly flammable.

Harmful by inhalation, in contact with skin and if swallowed.

Irritating to eyes.

**Safety phrases:**

Keep out of the reach of children.

Keep away from sources of ignition - No smoking.

Wear suitable protective clothing and gloves.

**Health Effects:**

NFPA Hazard Rating: Health: 1; Fire: 3; Reactivity: 1

HMIS® Hazard Rating: Health: 1; Fire: 3; Reactivity: 1

(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment:

PBT: Not applicable

vPvB: Not applicable

Emergency overview

Appearance: Colorless liquid.

Immediate effects: ND

**Potential health effects**

Primary Routes of entry: Inhalation, ingestion and eye and skin contact.

Signs and Symptoms of Overexposure: Nausea, vomiting; headache; hyper salivation; chest pain or tightness; profuse sweating; abdominal pain and hematemesis; weakness, stupor; respiratory depression, metabolic acidosis; convulsions; tachycardia, shock; eye irritation

Eyes: Irritating to eyes. Causes serious eye irritation.

Skin: Harmful in contact with skin.

Ingestion: Harmful if swallowed.

Inhalation: Harmful if inhaled.

Chronic Exposure: ND

Chemical Listed As Carcinogen Or Potential Carcinogen: None.

See Toxicological Information (Section 11)

**Potential environmental effects**

See Ecological Information (Section 12)

**Section 3: Composition / Information on Ingredients**

Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)	%	OSHA PEL mg/m <sup>3</sup>	ACGIH TLV mg/m <sup>3</sup>	NTP	IARC	OSHA regulated
Acetonitrile (75-05-8) EC number: 200-835-2	≤100	70 40 ppm	34 20 ppm	No	No	No

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**Section 4: First Aid Measures****If accidental overexposure is suspected**

General information: Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

Eye(s) Contact: Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Skin Contact: Generally the product does not irritate the skin. Wash with soap and water.

Inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

Ingestion: Immediately call a doctor.

**Note to physician**

Treatment: No further relevant information available.

Medical Conditions generally Aggravated by Exposure: No further relevant information available.

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**Section 5: Fire Fighting Measures**

Flash Point: 5 °C (41 °F)

Flammable Limits: Lower: 4.4 Vol %, Upper: 16 Vol %

Ignition temperature: 525 °C (977 °F)

Auto-ignition point: ND

Fire Extinguishing Media: CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

Special Fire Fighting Procedures: No further relevant information available.

Unusual Fire and Explosion Hazards: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

Hazardous combustion products: ND

DOT Class: Flammable Liquid.

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**Section 6: Accidental Release Measures**

Steps to be Taken in Case Material is Released or Spilled: Wear protective equipment. Keep unprotected persons away. Environmental precautions: Do not allow to enter sewers/ surface or ground water.

Methods and material for containment and cleaning up: Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Ensure adequate ventilation.

Waste Disposal Methods: Dispose of waste according to Federal, State and Local Regulations.

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**Section 7: Handling and Storage**

Precautions to be taken in Handling and Storage: Ensure good ventilation/exhaustion at the workplace.

Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Conditions for safe storage, including any incompatibilities: Storage: Requirements to be met by storerooms and receptacles: Store in a cool location. · Information about storage in one common storage facility: Not required.

Storage temperature: Store in cool, dry conditions in well-sealed receptacles

Storage Pressure: NA

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**Section 8: Exposure Controls / Personal Protection**

Components with limit values that require monitoring at the workplace: 75-05-8 Acetonitrile.

PEL Long-term value: 70 mg/m<sup>3</sup>, 40 ppm.

REL Long-term value: 34 mg/m<sup>3</sup>, 20 ppm.

TLV Long-term value: 34 mg/m<sup>3</sup>, 20 ppm.

General protective and hygienic measures: Keep away from foodstuffs, beverages and feed. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid contact with the eyes. Avoid contact with the eyes and skin.

### **Engineering Controls**

Ventilation required: Ensure good ventilation/exhaustion at the workplace. Use a chemical fume hood.

### **Personal Protection Equipment**

Respiratory protection: In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

Protective gloves: Wear protective gloves. The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Skin protection: Wear appropriate protective clothing.

Eye protection: Tightly sealed goggles.

Additional clothing and/or equipment: ND

### **Exposure Guidelines**

See Composition/Information on Ingredients (Section 3)

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## **Section 9 Physical and Chemical Properties**

Appearance and Physical State: Colorless liquid.

Odor (threshold): Aromatic (ND)

Specific Gravity (H<sub>2</sub>O=1): 0.7822 g/cm<sup>3</sup> (6.527 lbs/gal) at 20 °C (68 °F):

Vapor Pressure at 20 °C (68 °F): 97 hPa (73 mm Hg)

Vapor Density (air=1): ND

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): NE

Boiling Point: 81 °C (178 °F)

Freezing point / melting point: -46 °C (-51 °F)

pH: NE

Solubility in Water: Fully miscible.

Viscosity: Dynamic at 20 °C (68 °F): 0.39 mPas, Kinematic: Not determined

Molecular Weight: 41.5

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## **Section 10: Stability and Reactivity**

Stability: Stable under normal storage conditions. Unstable on exposure to moisture.

Conditions to Avoid: No further relevant information available.

Materials to Avoid (Incompatibility): No further relevant information available.

Hazardous Decomposition Products: No dangerous decomposition products known.

Hazardous Polymerization: No dangerous reactions known.

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## **Section 11: Toxicological Information**

Results of component toxicity test performed:

Acute toxicity: LD/LC<sub>50</sub> values that are relevant for classification: Oral LD<sub>50</sub> 2730 mg/kg (rat), Dermal LD<sub>50</sub> 1250 mg/kg (rabbit).

Primary irritant effect: On the skin: No irritant effect. On the eye: Irritating effect.

Sensitization: No sensitizing effects known.

Additional toxicological information: ND

### **Carcinogenic categories:**

IARC (International Agency for Research on Cancer): Substance is not listed.

NTP (National Toxicology Program): Substance is not listed.

Human experience: (IDLH): 500 ppm

Health Effects: Irritation-Eye, Nose, Throat---Mild (HE16); Acute Toxicity---Cyanosis, cardiac, respiratory arrest (HE4). Ingestion Acute: TDLO (human) 570 mg/kg

Affected Organs: Kidneys, liver, CVS, CNS, lung, skin, eyes

Notes: Metabolized by liver to cyanide

RTECS No.: AL7700000

This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

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## **Section 12: Ecological Information**

Ecological Information:

Aquatic toxicity: No further relevant information available.

Persistence and degradability: No further relevant information available.

Behavior in environmental systems:

Bioaccumulative potential: No further relevant information available.

Mobility in soil: No further relevant information available.

Additional ecological information:

General notes: Water hazard class 2 (German Regulation) (Assessment by list): hazardous for water

Do not allow product to reach ground water, water course or sewage system. Danger to drinking water if even small quantities leak into the ground.

Chemical Fate Information: ND

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## **Section 13 Disposal Considerations**

RCRA 40 CFR 261 Classification: ND

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

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## **Section 14: Transportation Information**

US DOT Information: Proper shipping name: Acetonitrile

Hazard Class: 3

Packaging group: II

UN Number: UN1648

IATA: Proper shipping name: Acetonitrile

Hazard Class: 3

Packing group: II

UN Number: UN1648

Marine Pollutant: No

Canadian TDG: Acetonitrile

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## **Section 15: Regulatory Information**

### **United States Federal Regulations**

SDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.

SARA: Section 355 (extremely hazardous substances): Substance is not listed.

Section 313 (Specific toxic chemical listings): Substance is listed.

SARA Title III:

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

RCRA: ND

TSCA (Toxic Substances Control Act): Substance is listed.

CERCLA: RQ = 5000 lbs (2270 Kg )

## State Regulations

California Proposition 65:

Chemicals known to cause cancer: Substance is not listed.

Chemicals known to cause reproductive toxicity for females: Substance is not listed.

Chemicals known to cause reproductive toxicity for males: Substance is not listed.

Chemicals known to cause developmental toxicity: Substance is not listed.

## Carcinogenic categories:

EPA (Environmental Protection Agency): 75-05-8 Acetonitrile - CBD, D

TLV (Threshold Limit Value established by ACGIH): 75-05-8 Acetonitrile - A4

NIOSH-Ca (National Institute for Occupational Safety and Health): Substance is not listed.

OSHA-Ca (Occupational Safety & Health Administration): Substance is not listed.

## International Regulations

Canada WHMIS: Listed on the Canadian DSL (Domestic Substances List) inventory.

Class B Division 2 - Flammable Liquid Class D Division 1 Subdivision B - Toxic material causing immediate and serious toxic effects.

Europe EINECS Numbers: 200-835-2

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## Section 16: Other Information

Label Information: Flammable Liquid and Vapor.

European Risk and Safety Phrases: See Section 2.

European symbols needed: Harmful, Highly flammable.

Canadian WHMIS Symbols: B2 - Flammable liquid, D2B - Toxic material causing other toxic effects.

## Abbreviations used in this document

NE= Not established

NA= Not applicable

NIF= No Information Found

ND= No Data

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## Disclaimer

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