TED PELLA, INC.
Microscopy Products for Science and Industry

Safety Data Sheet

Product No. 16023 Acetone Thinner/Extender
Issue Date (06-04-15)
Review Date (08-31-17)

Section 1: Product and Company Identification

Product Name: Acetone Thinner/Extender
Synonym: 2-propanone
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

Section 2: Hazard Identification

2.1 Classification of the substance or mixture

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

GHS Pictograms


Flammable Irritant

GHS Classification
Flammable liquids (Category 2), H225
Eye irritation (Category 2A), H319
Specific organ toxicity-single exposure (Category 3), Central nervous system, H336

2.2 GHS label elements

Signal Word: DANGER

Hazard statements:
H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

Precautionary statements:

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.
P271	Use only outdoors or in a well-ventilated area.

P280	Wear protective gloves/eye protection/face protection.
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 person to fresh air and keep 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.
P370 + P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P403 + P233	Store in a well-ventilated place. Keep container tightly closed.
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.

2.3 Other hazards
Hazards not otherwise classified (HNOC) or not covered by GHS
Repeated exposure may cause skin dryness or cracking.

HMIS® Hazard Rating: Health: 2; Flammability 3; Physical hazards: 0
(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)
NFPA Hazard Rating: Health: 2; Fire 3; Reactivity hazards: 0
(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Emergency overview
Appearance: Clear liquid
Potential health effects
Primary Routes of entry: Inhalation, ingestion, skin and eye contact.
Signs and Symptoms of Overexposure: ND
Eyes: Causes eye irritation.
Skin: May be harmful if absorbed through skin. Causes skin irritation.
Ingestion: May be harmful if swallowed.
Inhalation: May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness.
Chronic Exposure: Repeated exposure may cause skin dryness or cracking
Chemical Listed As Carcinogen Or Potential Carcinogen: None
See Toxicological Information (Section11)
Potential environmental effects
See Ecological Information (Section 12)
Hazards not otherwise classified (HNOC) or not covered by GHS
Repeated exposure may cause skin dryness and cracking.

Section 3: Composition / Information on Ingredients

Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)	%	OSHA PEL mg/m3	ACGIH TLV mg/m3	NTP	IARC	OSHA regulated
Acetone (67-64-1) EC-No. 200-662-2 Index-No. 606-001-00-8 Registration number: 01-2119471330-49-xxxx	≤ 100	1800 750 ppm	500 ppm	No	No	No

Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336						

Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact: Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin Contact: Wash off with soap and plenty of water. Consult a physician.
Inhalation: If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
Ingestion: Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

Note to physician

Treatment: Show this safety data sheet to the doctor in attendance.
Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures

Flash Point: -17.0 °C (1.4 °F) - closed cup
Flammable Limits: Lower explosion limit 2 %(V), Upper explosion limit 13 %(V)
Auto-ignition point: 465.0 °C (869.0 °F)
Fire Extinguishing Media: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Use water spray to cool unopened containers.
Special Fire Fighting Procedures: Wear self-contained breathing apparatus for firefighting if necessary.
Unusual Fire and Explosion Hazards: ND
Hazardous combustion products: Hazardous decomposition products formed under fire conditions: Carbon oxides.
DOT Class: Flammable.

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled:
Personal precautions, protective equipment and emergency procedures: Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.
Environmental precautions: Prevent further leakage or spillage if safe to do so. Do not let product enter drains.
Waste Disposal Methods: Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations. Dispose of waste according to Federal, State and Local Regulations.

Section 7: Handling and Storage

Precautions to be taken in Handling and Storage: Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof equipment. Keep away from sources of ignition - No smoking. Take measures to prevent the buildup of electrostatic charge. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Storage class: TRGS 510: Flammable liquids
Storage temperature: Room temperature.
Storage Pressure: NA

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Use a chemical fume hood.

Control Parameters

Components with workplace control parameters

Component	CAS-No.	Value	Control parameters	Basis
Acetone	67-64-1	TWA	500.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
	Remarks	Central Nervous System impairment Hematologic effects Upper Respiratory Tract irritation Eye irritation Adopted values or notations enclosed are those for which changes are proposed in the NIC See Notice of Intended Changes (NIC) Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen		
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		STEL	750.000000 ppm	USA. ACGIH Threshold Limit Values (TLV)
		Central Nervous System impairment Hematologic effects Upper Respiratory Tract irritation Eye irritation Adopted values or notations enclosed are those for which changes are proposed in the NIC See Notice of Intended Changes (NIC) Substances for which there is a Biological Exposure Index or Indices (see BEI® section) Not classifiable as a human carcinogen		
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		TWA	1,000.000000 ppm 2,400.000000 mg/m^3	USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
		The value in mg/m3 is approximate.		
		TWA	250.000000 ppm 590.000000 mg/m^3	USA. NIOSH Recommended Exposure Limits

Biological occupational exposure limits

Component	CAS-No.	Parameters	Value	Biological specimen	Basis
Acetone	67-64-1	Acetone	50.0000 mg/l	Urine	ACGIH - Biological Exposure Indices (BEI)
	Remarks	End of shift (As soon as possible after exposure ceases)			

Derived no effect level (DNEL)

Application area	Exposure routes	Health effect	Value

Workers	Skin contact	Long-term systemic effects	186 mg/kg BW/d
Consumers	Ingestion	Long-term systemic effects	62 mg/kg BW/d
Consumers	Skin contact	Long-term systemic effects	62 mg/kg BW/d
Workers	Inhalation	Acute systemic effects	2420 mg/m^3
Workers	Inhalation	Long-term systemic effects	1210 mg/m^3
Consumers	Inhalation	Long-term systemic effects	200 mg/m^3

Predicted no effect concentration (PNEC)

Compartment	Value
Soil	33.3 mg/kg
Marine water	1.06 mg/l
Fresh water	10.6 mg/l
Marine sediment	3.04 mg/kg
Fresh water sediment	30.4 mg/kg
Onsite sewage treatment plant	100 mg/l

Personal Protection Equipment

Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type AXBEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protective gloves: Handle with 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.

Skin protection: Impervious clothing, Flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

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

Additional clothing and/or equipment: Eye wash station.

Exposure Guidelines

See Composition/Information on Ingredients (Section2)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Clear liquid.
Odor (threshold): ND
Specific Gravity (H_2O=1): 0.791 g/cm3 at 25 °C (77 °F)
Vapor Pressure (mm Hg): 533.3 hPa (400.0 mmHg) at 39.5 °C (103.1 °F)
245.3 hPa (184.0 mmHg) at 20.0 °C (68.0 °F)
Vapor Density (air=1): ND
Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND
Boiling Point: 56 °C (133 °F) at 1,013 hPa (760 mmHg) - lit.
Melting point/range: -94 °C (-137 °F) - lit.
pH: ND
Solubility in Water: completely miscible.
Molecular Weight: 58.08 g/mol
Formula : C_3H_6O

Section 10: Stability and Reactivity

Stability: Stable under recommended storage conditions.
Conditions to Avoid: Heat, flames and sparks. Extremes of temperature and direct sunlight.
Materials to Avoid (Incompatibility): Bases, Oxidizing agents, Reducing agents, Acetone reacts violently with phosphorous oxychloride.
Possibility of hazardous reactions: Vapors may form explosive mixture with air.
Hazardous Decomposition Products: Carbon oxides
Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

Results of component toxicity test performed:
Acute toxicity

LD50 Oral - rat - 5,800 mg/kg
LC50 Inhalation - rat – 8 h – 50, 100 mg/m^3
Remarks: Drowsiness, dizziness, unconsciousness
LD50 Dermal – guinea pig – 7,426 mg/kg

Remarks: Behavioral: Altered sleep time (including change in righting reflex). Behavioral: Tremor.
Skin corrosion/irritation: Skin - rabbit - Mild skin irritation - 24 h
Serious eye damage/eye irritation: Eyes - rabbit - Eye irritation - 24 h
Respiratory or skin sensitization: ND
RTECS: AL3150000
Human experience: To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated

Kidney – irregularities
Skin – dermatitis

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

Section 12: Ecological Information

Toxicity

Toxicity to fish: LC50 - Oncorhynchus mykiss (rainbow trout) - 5,540 mg/l - 96 h
Toxicity to daphnia and other aquatic invertebrates: LC50 - Daphnia magna (Water flea) – 8,800 mg/l - 48 h

Persistence and degradability

Biodegradability: Result: 91% - Readily biodegradable (OECD Test Guideline 301B)

Bioaccumulative potential: Does not bioaccumulate.
Motility in soil: ND
Chemical Fate Information: ND

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: Burn in a chemical incinerator equipped with an afterburner and scrubber but exert extra care in igniting as this material is highly flammable. Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material.
Federal, State and local laws governing disposal of materials can differ. Ensure proper disposal compliance with proper authorities before disposal.

Section 14: Transportation Information

US DOT Information: Proper shipping name: Acetone
Hazard Class: 3
Packaging group: II
UN Number: UN1090
Reportable quantity: 5000 lbs.

IATA: Proper shipping name: Acetone
Hazard Class: 3
Packing group: II
UN Number: UN1090
Marine Pollutant: No
Canadian TDG: Acetone

Section 15: Regulatory Information

United States Federal Regulations

SDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.
Flammable liquid, Target Organ Effect, Irritant
SARA: SARA 302 Components:
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
SARA 313 Components:
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.
SARA 311/312 Hazards:
Fire Hazard, Acute Health Hazard, Chronic Health Hazard.
RCRA: ND
TSCA: Listed
CERCLA: ND

State Regulations

California Proposition 65: None listed
Massachusetts Right To Know Components

Acetone	CAS-No. 67-64-1	Revision Date: 2007-03-01

Pennsylvania Right To Know Components

Acetone	CAS-No. 67-64-1	Revision Date: 2007-03-01

New Jersey Right To Know Components

Acetone	CAS-No. 67-64-1	Revision Date: 2007-03-01

International Regulations

Canada WHMIS: CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F). CLASS D-2B: Material causing other toxic effects.
Europe EINECS Numbers: 200-662-2

Section 16: Other Information

Label Information: Flammable, Irritant.
European Risk and Safety Phrases: R11- Highly flammable. R36- Irritating to eyes. S9- Keep container in a well-ventilated place. S16- Keep away from sources of ignition - No smoking. S26- In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
European symbols needed: ND
Canadian WHMIS Symbols: ND

Abbreviations used in this document

NE= Not established
NA= Not applicable
NIF= No Information Found
ND= No Data

Disclaimer

presented in good faith and believed to be accurate, it should be considered only as a supplement to other information gathered by the user. It is the User's responsibility to assure the proper use and disposal of these materials as well as the safety and health of all personnel who may work with or otherwise come in contact with these materials.