



Material Safety Data Sheet

Product No. 16048-25 Silver Paint Diluent

Issue Date (05-18-06)

Review Date (04-12-12)

Section 1: Product and Company Identification

Product Name: Silver Paint Diluent

Synonym: 4-Methyl-2-pentanone, 4-Methylpentan-2-one, Iso-butyl methyl ketone, Methyl isobutyl ketone, MIBK, Hexone

Company Name

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

Domestic Phone (800) 237-3526 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

International Phone (01) (530) 243-2200 (Mon-Thu. 6:00AM to 4:30PM PST; Fri 6:00AM to 4:00PM PST)

Chemtrec Emergency Number 1-800-424-9300 24 hrs a day.

Section 2: Composition / Information on Ingredients

Principle Hazardous Component(s) (chemical and common name(s)) (Cas. No)	%	OSHA PEL PPM	ACGIH TLV PPM	NTP	IARC	OSHA regulated
4-Methyl-2-pentanone (108-10-1)	98.5	100	50	No	No	No

Section 3: Hazard Identification

Emergency overview

Appearance: Liquid, colorless

Immediate effects: Flammable liquid. Harmful by inhalation and is irritating to eyes and respiratory system. High concentrations will cause narcotic effects. Repeated exposure may cause skin dryness or cracking. May form explosive peroxides.

Target Organs: Nerves.

Potential health effects

Primary Routes of entry: May be absorbed into the body by inhalation, ingestion and through the skin. Formation of product mist when applied by spray, which could be inhaled.

Signs and Symptoms of Overexposure: Contact with eyes can cause redness, tearing, and blurred vision. Prolonged or repeated contact with skin can cause defatting and dermatitis. To the best of our knowledge, the chemical, physical, and toxicological properties have no been thoroughly investigated.

Eyes: Irritating to eyes.

Skin: Slight irritation systems. Degreasing effect on the skin, possible followed by secondary inflammation. Danger of skin absorption.

Ingestion: Gastrointestinal complaints. Systemic effect: headache, inebriation, nausea, narcosis.

Inhalation: Irritation of the mucous membranes, upper respiratory tracts, coughing, and dyspnea. Harmful if inhaled.

Chronic Exposure: CNS disorders.

Chemical Listed As Carcinogen Or Potential Carcinogen: None

See Toxicological Information (Section 11)

Potential environmental effects

See Ecological Information (Section 12)

Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact: Immediately flush thoroughly with water for at least 15 minutes. If discomfort persists obtain medical attention.

Skin Contact: Immediately wash off skin thoroughly with water. Remove contaminated clothing and wash before re-use. In severe cases obtain medical attention.

Inhalation: Remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

Ingestion: Wash out mouth thoroughly with water and give plenty of water to drink. Obtain medical attention.

Note to physician

Treatment: ND

Medical Conditions generally Aggravated by Exposure: ND

Section 5: Fire Fighting Measures

Flash Point: 14° C (57.2 °F)

Explosion Limits: Lower: 1.2%, Upper: 8%

Auto-ignition point: 459 °C

Fire Extinguishing Media: Suitable extinguishing media are “alcohol” foams, dry chemicals, or carbon dioxide.

Special Fire Fighting Procedures: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Large fires: apply water from as far as possible. Use very large quantities (flooding) of water applied as a mist or spray.

Unusual Fire and Explosion Hazards: Highly flammable. Vapor/air mixture explosive.

Hazardous combustion products: Toxic fumes.

DOT Class: Flammable liquid.

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: Evacuate area. Shut off all sources of ignition. Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves. Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

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

Section 7: Handling and Storage

Precautions to be taken in Handling and Storage: Avoid breathing vapors, contact with eyes, skin, and clothing. Avoid prolonged or repeated exposures. Take precautions against static discharge. All electrical equipment must be flame proofed. Work under fume extractor. Do not empty into drains. Storage: Keep container closed. Keep away from heat, sparks, and open flame. Unsuitable: May form peroxides on contact with air. Storage temperature: 15-20° C
Storage Pressure: ND

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Mechanical exhaust required. Fume cupboard, flameproof.

Personal Protection Equipment

Respiratory protection: Self-contained breathing apparatus tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Protective gloves: Butyl rubber (change gloves regularly)

Skin protection: Wear suitable protective clothing.

Eye protection: Goggles or face-shield

Additional clothing and/or equipment: Plastic apron, sleeves, boots – if handling large quantities. Safety shower and eye bath are required. Use non-sparking tools.

Exposure Guidelines

See Composition/Information on Ingredients (Section2)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Colorless liquid

Odor (threshold): 0.1 ppm

Specific Gravity (H₂O=1): 0.80

Vapor Pressure (mm Hg): 15mm Hg, (20°C)

Vapor Density (air=1): 3.5 g/l

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND

Boiling Point: 115 – 117 °C

Freezing point / melting point: -80°C

Refractive Index: 1.396

Partition Coefficient: Log Kow: 1.31

Surface Tension: 23.6 mN/m at 20°C

pH: NA

Solubility in Water: 20 g/l (20°C) Other Solvents: Acetone, Benzene, Chloroform.

Miscible with most.

Molecular Weight: 100.16 AMU

Section 10: Stability and Reactivity

Stability: Stable

Conditions to Avoid: May form peroxides on contact with air.

Materials to Avoid (Incompatibility): Oxidizing agents, Strong bases.
Hazardous Decomposition Products: Carbon monoxide, carbon monoxide.
Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information

Results of component toxicity test performed:

LD50 (Skin, Rabbit): >16,000 mg/kg. LC50 (Inhalation, Rat): 8.2 – 16.4 mg/m³. LD50 (Oral, Rat): 2080 mg/kg. LC50 (Inhalation, Rat): 100,000 mg/m³. LD50 (Intraperitoneal, Rat): 400 mg/kg. LD50 (Oral, Mouse): 1900 mg/kg. LC50 (Inhalation, Mouse): 23.300 mg/m³. LD50 (Intraperitoneal, Mouse): 268 mg/kg. LD50 (Oral, Guinea Pig): 1600 mg/kg. LD50 (Intraperitoneal, Guinea Pig): 800mg/kg. (Skin, Rabbit): Remarks: Moderate irritation effect. (Eyes, Rabbit): Remarks: No irritation effect. (Skin, Rabbit): 500mg. Exposure Time: 24H. Remarks: Mild irritation effect. (Eyes, Rabbit): 40mg. Remarks: Severe irritation effect. (Eyes, Rabbit): 0.1ml. Exposure Time: 24H. Remarks: Moderate irritation effect.

Chronic Exposure – Teratogen:

Species: Rat. Dose: 300 ppm/6H. Route of Application: Inhalation. Exposure Time: (6015D PREG). Result: Specific Developmental Abnormalities: Musculoskeletal system. Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Species: Mouse. Dose: 3000 ppm/6H. Router of Application: Inhalation. Exposure Time: (6-15D PREG). Results: effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted fetus). Effects on Embryo or Fetus: Fetal death. Specific Developmental Abnormalities: Central nervous system. Musculoskeletal system. Cardiovascular (circulatory) system. Human experience: CNS disorders
This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information

Acute Ecotoxicity Test:

EC50 (Algae, *Scenedesmus subspicatus*): 48H. Value: 980 – 2,000 mg/l. EC50 (Daphnia, *Daphnia magna*): 24H. Value: 1,550 – 3,623 mg/l. LC50 (Fish, *Leuciscus idus*): 48H. Value: 672 – 744 mg/l. LC50 (Fish, *Pimephales promelas* [Fathead minnow]): 96H. 496 – 593 mg/l.

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: U161. 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: Methyl Isobutyl Ketone

Hazard Class: 3

Packaging group: II

UN Number: UN1245

IATA: Proper shipping name: Methyl Isobutyl Ketone

Hazard Class: 3
Packing group: II
UN Number: UN1245
Domestic shipments only:
IMO: Proper shipping name: Methyl Isobutyl Ketone
Class: 3
UN Number: UN1245
Packing group: II
EMS: NIF
MFAG: NIF
Marine Pollutant: Not listed
Canadian TDG: NIF
IMDG Class: 3.2
Limitations: ND

Section 15: Regulatory Information

United States Federal Regulations

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

SARA: Section 302, 304: No

SARA Title III: Section 311/313: Acute: Yes, Chronic: Yes, Fire: Yes, Reactive: Yes,
Sudden Release: No

Section 313: Methyl Isobutyl Ketone. Deminimis: 1%

RCRA: U161

TSCA: Listed, 12 (b): Yes, 8 (d): No

CERCLA: RQ: 5000 lbs (2270 Kg)

State Regulations

California Proposition 65: No

International Regulations

Canada WHMIS: BD2 This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

DSL: Yes. NDSL: No.

Europe EINECS Numbers: 203-550-1

Section 16: Other Information

Label Information: Highly flammable. Harmful

European Risk and Safety Phrases: R11-20-36/37-66. Risk Statements: Highly flammable. Harmful by inhalation. Irritating to eyes and skin. Repeated exposure may cause skin dryness and cracking. S9, S16, S29. Safety Statements: Keep container in a well-ventilated place. Keep away from sources of ignition – no smoking. Do not empty into drains.

European symbols needed: F - Xn

Canadian WHMIS Symbols: ND

NFPA Hazard Rating: Health: **2**; Fire: **3**; Reactivity: **1**
(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Abbreviations used in this document

NE= Not established

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

Disclaimer

Ted Pella, Inc. makes no warranty of any kind regarding the information furnished herein. Users should independently determine the suitability and completeness of information from all sources. While this data is 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.

MSDS Form 0013F1 V2