

Safety Data Sheet

Product No. 16040-30 Fast Drying Silver Paint

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Section 1: Product and Company Identification

Product Name: Fast Drying Silver Paint

Synonym: Electrodag 1415M, Fast Drying Silver Suspension

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

Classification of the substance or mixture

Signal Word: DANGER

GHS Categories:

| | | |
|-------------------|--|-------------|
| GHS02 - Flammable | Flammable Liquid: | Category 2 |
| GHS07 – Irritant | Acute Toxicity: | Category 4 |
| | Skin Irritant: | Category 2 |
| | Eye Irritant: | Category 2A |
| | Specific target organ toxicity: · single exposure | Category 3 |

Label elements

GHS Pictograms



GHS02



GHS07

Hazard Statements

| | |
|------|------------------------------------|
| H225 | Highly flammable liquid and vapor. |
| H315 | Causes skin irritation. |
| H319 | Causes serious eye irritation. |
| H336 | May cause drowsiness or dizziness. |

Precautionary Statements

Prevention:

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| P210 | Keep away from heat, sparks, open flames, hot surfaces - no smoking. |
| P233 | Keep container tightly closed. |
| P241 | Use explosion-proof 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 affected area thoroughly after handling. |
| P271 | Use only outdoors or in a well-ventilated area. |
| P280 | Wear protective gloves, eye protection, and face protection. |

Response:

P303+P361 If on skin (or hair): Take off immediately all contaminated clothing.
 P304+P340+P312 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 Call a poison control center or 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.
 P332+P317 If skin irritation occurs: Get medical help.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P370+P378 In case of fire: Use foam, dry chemical or carbon dioxide to extinguish.

Storage:

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.

Disposal:

P501 Dispose of contents and/or container according to local/state and federal regulations.

Classification complies with OSHA Hazard Communication Standard (29 CFR 1910.1200) and is consistent with the provisions of the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS)

Other Hazards: No not release into water.

Section 3: Composition / Information on Ingredients

| <u>Hazardous Components</u> | <u>CAS No.</u> | <u>EC No.</u> | <u>% BY WEIGHT*</u> |
|-----------------------------|----------------|---------------|---------------------|
| Silver | 7440-22-4 | 231-131-3 | 30.0% - 60.0% |
| Methyl isobutyl ketone | 108-10-1 | 203-550-1 | 30.0% - 60.0% |

* Exact percentages may vary or are trade secret.
 Concentration range is provided to assist users in providing appropriate protections.

Section 4: First Aid Measures

Inhalation: Move to fresh air. If not breathing, give artificial respiration.
 If breathing is difficult, give oxygen. Get medical attention.

Skin contact: Immediately flush skin with plenty of water (using soap, if available).
 Remove contaminated clothing and footwear.
 If symptoms develop and persist, get medical attention.

Eye contact: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes.
 Get medical attention.

Ingestion: Do not induce vomiting.
 Never give anything by mouth to an unconscious person.
 Get medical attention.

Symptoms: See Section 11.

Section 5: Fire Fighting Measures

Extinguishing media: Water spray (fog), foam, dry chemical or carbon dioxide.

Special firefighting procedures: Wear self-contained breathing apparatus and full protective clothing, such as turn-out gear.
 In case of fire, keep containers cool with water spray.

Unusual fire or explosion hazards: Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition.
Vapors may travel considerable distance to source of ignition and flash back.
Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat.

Hazardous combustion products: Oxides of carbon. Oxides of Metals in Section 3. Toxic fumes. Irritating vapors.

Section 6: Accidental Release Measures

Environmental precautions: Do not allow product to enter sewer or waterways.

Clean-up methods: Remove all sources of ignition. Ensure adequate ventilation.
Isolate area. Keep unnecessary personnel away.
Soak up with inert absorbent material (e.g. sand, silica gel, acid/universal binder, sawdust).
Store in a closed container until ready for disposal.
Refer to Section 8 "Exposure Controls / Personal Protection" prior to clean up.

- Use personal protection recommended in Section 8, isolate the hazard area and deny entry to unnecessary and unprotected personnel.
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Section 7: Handling and Storage

Handling: Use only with adequate ventilation.
Keep away from heat, spark and flame.
Ground and bond all equipment as required (when transferring products).
Prevent contact with eyes, skin and clothing.
Do not breathe vapor and mist.
Wash thoroughly after handling.
Do not take internally.
For industrial use only. Refer to Section 8.

Storage: For safe storage, store between -20 °C (-4°F) and 50 °C (122°F)
Keep away from heat, spark and flame.
Keep in a cool, well ventilated area away from heat, sparks and open flame.
Keep container tightly closed until ready for use.
Do not cut or weld on empty drums.
Sufficient vapors from residues may be present to cause explosion and serious injury and/or death.

- For information on product shelf life, please review labels on container or check the Technical Data Sheet.
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Section 8: Exposure Controls / Personal Protection

- **Employers should complete an assessment of all workplaces to determine the need for, and selection of, proper exposure controls and protective equipment for each task performed.**

| <u>Hazardous Components</u> | <u>ACGIH TLV</u> | <u>OSHA PEL</u> | <u>AIHA WEEL</u> | <u>Other</u> |
|-----------------------------|---|--|------------------|--------------|
| Silver | 0.1mg/m ³ TWA Dust and fume | 0.01mg/m ³ PEL (as silver) | None | None |
| Methyl isobutyl ketone | 20 ppm TWA 75 ppm STEL | 100 ppm 410 mg/m ³ - PEL | None | None |

Engineering controls: Provide adequate local exhaust ventilation to maintain worker exposure below exposure limits.

Respiratory protection: Use a NIOSH approved air-purifying respirator if the potential to exceed established exposure limits exists.

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|-----------------------------|---|
| <u>Eye/face protection:</u> | Safety goggles or safety glasses with side shields. Full face protection should be used if the potential for splashing or spraying of product exists. Safety showers and eye wash stations should be available. |
| <u>Skin protection:</u> | Use chemical resistant, impermeable clothing including gloves and either an apron or body suit to prevent skin contact. |

Section 9 Physical and Chemical Properties

| | |
|---|-------------------|
| Appearance | Liquid |
| Color | Silver |
| Odor | Solvent |
| Odor threshold | No data available |
| pH | Not applicable |
| Vapor pressure | Not determined |
| Melting point/range | -121°F / -85°C |
| Boiling point/range | 243.5°F / 117.5°C |
| Specific gravity | 1.62 – 1.64 |
| Vapor density | Not determined |
| Flash point | 57.2°F / 14°C |
| Upper explosion/flammability limit | 8% |
| Lower explosion/flammability limit | 1.2% |
| Auto-ignition temperature | 860°F / 460°C |
| Flammability (solid, gas) | Not applicable |
| Evaporation rate | Not determined |
| Solubility in H ₂ O | Insoluble |
| Partition coefficient (n-octanol/water) | Not determined |
| VOC content | 41.7% |
| Viscosity | No data available |
| Decomposition temperature | No data available |

Section 10: Stability and Reactivity

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| <u>Stability:</u> | Stable under normal conditions of storage and use. |
| <u>Hazardous reactions:</u> | None under normal processing. |
| <u>Hazardous decomposition products:</u> | Oxides of carbon. Oxides of Metals in Section 3. Toxic fumes. Irritating vapors. |
| <u>Incompatible materials:</u> | Strong oxidizing agents. Acids. Bases. Ammonia. Peroxides. |
| <u>Reactivity:</u> | Not available. |
| <u>Conditions to avoid:</u> | Keep away from heat, ignition sources and incompatible materials. Protect from direct sunlight. |

Section 11: Toxicological Information

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|--|---|
| Relevant routes of exposure: | Skin, Inhalation, Eyes |
| Potential Health Effects/Symptoms | |
| <u>Inhalation:</u> | May cause respiratory tract irritation. May cause central nervous system effects. |
| <u>Skin contact:</u> | Causes skin irritation. Argyria (a non-toxic, cosmetic blue-gray discoloration of the skin and mucous membranes that is irreversible). |
| <u>Eye contact:</u> | Causes serious eye irritation. |
| <u>Ingestion:</u> | May cause gastrointestinal tract irritation if swallowed. |

| <u>Hazardous Components</u> | <u>LD50s and LC50s</u> | <u>Immediate and Delayed Health Effects</u> |
|-----------------------------|--|---|
| Silver | Oral LD50 (Rat) => 5,000 mg/kg Dermal LD50 (Rat) => 2,000 mg/kg Inhalation LC50 (Rat, 4h) =>5.16mg/L Inhalation LC50 (Rat, 4h) = 760ug/m ³ | Allergen, Eyes, Irritant, Respiratory Skin |
| Methyl isobutyl ketone | Oral LD50 (Rat) = 2,080 mg/kg Dermal LD50 (Rabbit) => 16,000 mg/kg | Irritant, Central nervous system |

| <u>Hazardous Components</u> | <u>NTP Carcinogen</u> | <u>IARC Carcinogen</u> | <u>OSHA Carcinogen</u> (Specifically Regulated) |
|-----------------------------|-----------------------|------------------------|--|
| Silver | No | No | No |
| Methyl isobutyl ketone | No | Group 2B | No |

Section 12: Ecological Information

Ecological Information: No data available

Section 13 Disposal Considerations

- Information provided is for unused product only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.
Hazardous waste number: If discarded, this product is considered a RCRA ignitable waste, D001.

This product contains a component or components identified as hazardous under 40 CFR 261.24.

- D011: Silver (Check TCLP Level).
- D043. Vinyl Chloride.

Section 14: Transportation Information

International Regulations

ICAO/IATA-DGR

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|--------------------------|---------|
| UN identification number | UN 1263 |
| Proper shipping name | Paint |
| Class | 3 |
| Packing group | II |

IMDG-Code

| | |
|--------------------------|----------------|
| UN identification number | UN 1263 |
| Proper shipping name | Paint (Silver) |
| Class | 3 |
| Packing group | II |
| Marine pollutant | Yes (silver) |

Domestic Regulations

DOT

| | |
|--------------------------|--------------------------------|
| UN identification number | UN 1263 |
| Proper shipping name | Paint |
| Class | 3 |
| Packing group | II |
| DOT Hazardous Substances | Silver, Methyl isobutyl ketone |

Special precautions for user

The transport classification(s) provided herein are for information purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet (SDS). Transportation classifications may vary by mode of transportation, package size, and variations in regional or country regulations.

Section 15: Regulatory Information

United States Regulatory Information

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| <u>TSCA 8 (b) Inventory Status:</u> | All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory. |
| <u>TSCA 12 (b) Export Notification:</u> | None above reporting de minimis. |
| <u>CERCLA/SARA Section 302 EHS:</u> | None above reporting de minimis. |
| <u>CERCLA/SARA Section 311/312:</u> | Fire, Immediate Health |
| <u>CERCLA/SARA Section 313:</u> | This product contains the following toxic chemicals subject to the reporting requirements of section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40CFR 372). Silver (CAS# 7440-22-4). Methyl isobutyl ketone (CAS# 108-10-1). |
| <u>CERCLA Reportable quantity:</u> | Silver (CAS# 7440-22-4) 1,000 lbs. (454 kg) Methyl isobutyl ketone (CAS# 108-10-1) 5,000 lbs. (2,270 kg) |

California Proposition 65:

This product contains a chemical known in the State of California to cause cancer, birth defects or other reproductive harm.

Canada Regulatory Information:

CEPA DSL/NDSL Status: All components are listed on or are exempt from listing on the Canadian Domestic Substances List.

Section 16: Other Information

Full text of other abbreviations

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|-----------------|---|
| ACGIH: | USA. ACGIH Threshold Limit Values (TLV) |
| ACGIH BEI: | ACGIH - Biological Exposure Indices (BEI) |
| NIOSH REL: | USA. NIOSH Recommended Exposure Limits |
| OSHA Z-1: | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| OSHA Z-2: | USA. Occupational Exposure Limits (OSHA) - Table Z-2 |
| US WEEL: | USA. Workplace Environmental Exposure Levels (WEEL) |
| ACGIH / TWA: | 8-hour, time-weighted average |
| ACGIH / STEL: | Short-term exposure limit |
| NIOSH REL/TWA: | Time-weighted average concentration for up to a 10-hour workday during a 40-hour workweek |
| NIOSH REL/ST: | STEL - 15-minute TWA exposure that should not be exceeded at any time during a workday |
| OSHA Z-1 / TWA: | 8-hour time weighted average |
| OSHA Z-2/TWA: | 8-hour time weighted average |
| OSHA Z-2/CEIL: | Acceptable ceiling concentration |
| OSHA Z-2/Peak: | Acceptable maximum peak above the acceptable ceiling concentration for an 8-hr shift |
| US WEEL/TWA: | 8-hr TWA |

AICS - Australian Inventory of Chemical Substances;

AIIC - Australian Inventory of Industrial Chemicals;

ASTM - American Society for the Testing of Materials;

bw - Body weight;

CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act;

CMR - Carcinogen, Mutagen or Reproductive Toxicant;

DIN - Standard of the German Institute for Standardization;

DOT - Department of Transportation;

DSL - Domestic Substances List (Canada);

ECx - Concentration associated with x% response;

EHS - Extremely Hazardous Substance;

ELx - Loading rate associated with x% response;

EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan);
ErCx - Concentration associated with x% growth rate response;
ERG - Emergency Response Guide;
GHS - Globally Harmonized System;
GLP - Good Laboratory Practice;
HMIS - Hazardous Materials Identification System;
IARC - International Agency for Research on Cancer;
IATA - International Air Transport Association;
IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration;
ICAO - International Civil Aviation Organization;
IECSC - Inventory of Existing Chemical Substances in China;
IMDG - International Maritime Dangerous Goods;
IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan);
ISO - International Organization for Standardization;
KECI - Korea Existing Chemicals Inventory;
LC50 - Lethal Concentration to 50 % of a test population;
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose);
MARPOL - International Convention for the Prevention of Pollution from Ships;
MSHA - Mine Safety and Health Administration;
n.o.s. - Not Otherwise Specified;
NFPA - National Fire Protection Association;
NO(A)EC - No Observed (Adverse) Effect Concentration;
NO(A)EL - No Observed (Adverse) Effect Level;
NOELR - No Observable Effect Loading Rate;
NTP - National Toxicology Program;
NZIoC - New Zealand Inventory of Chemicals;
OECD - Organization for Economic Co-operation and Development;
OPPTS - Office of Chemical Safety and Pollution Prevention;
PBT - Persistent, Bioaccumulative and Toxic substance;
PICCS - Philippines Inventory of Chemicals and Chemical Substances;
(Q)SAR - (Quantitative) Structure Activity Relationship;
RCRA - Resource Conservation and Recovery Act;
REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorization and Restriction of Chemicals;
RQ - Reportable Quantity;
SADT - Self-Accelerating Decomposition Temperature;
SARA - Superfund Amendments and Reauthorization Act;
SDS - Safety Data Sheet;
TCSI - Taiwan Chemical Substance Inventory;
TSCA - Toxic Substances Control Act (United States);
UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods;
vPvB - Very Persistent and Very Bioaccumulative

Disclaimer

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