TED PELLA, INC.
Microscopy Products for Science and Industry

SAFETY DATA SHEET

Product No. 897-10, 897-10-1 PELCO® Ceria Suspension 0.5um
Product No. 897-11, 897-11-1 PELCO® Ceria Suspension 1.5um
Issue Date (06-09-2025)
Review Date (06-09-2025) Rev.: 01

Section 1: Product and Company Identification

Product Name: PELCO® Ceria Suspension 0.5um, 1.5um
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

GHS Classification:	**Non-Hazardous**
Physical Hazards:	Not Classified
Health Hazards: (Dry Dust/Inhalation)	Acute Toxicity, Dermal Category 3 Eye Irritation Category 2B

Label elements

GHS-07
Acute Health Hazards

Signal Word: **WARNING**

Hazard Statement(s):

H320:	Causes Eye Irritation
H316:	May be harmful in contact with skin

Precautionary Statements:

P264	Wash face, hands and any exposed skin thoroughly after handling.

Precautionary Response:

P305+P351+P338:	**IF IN EYES**: Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313:	If eye irritation persists, get medical advice/attention.
P312:	Call a POISON CENTER or doctor/physician if you feel unwell.

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)

Section 3: Composition / Information on Ingredients

Component(s)	CAS Number	% w/w
Cerium Oxide	1306-38-3	5% – 25.0%
Cerium III Nitrate	10294-41-4	0.1% – 1.0%
Bentonite	1302-78-9	1.0% – 10.0%
Proprietary Non-hazardous ingredients	N/A	64% - 90%

Section 4: First Aid Measures

First-aid measures general: If medical advice is needed, have product container or label at hand.

First-aid measures after inhalation: If inhaled, remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

First-aid measures after skin contact: Rinse immediately with plenty of water.
Gently wash with plenty of soap and water.
Obtain medical attention if irritation persists.

First-aid measures after eye contact: Immediately rinse with water for a prolonged period while holding the Eyelids wide open. Seek medical attention if material is embedded in eye. If eye irritation persists: Get medical advice and attention.

First-aid measures after ingestion: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label. Drink 1 or 2 glasses of water with Milk of Magnesia or other medical antacid. Never give anything to an unconscious person.

Symptoms/injuries after inhalation: Repeated or prolonged inhalation may damage lungs.
May cause irritation to the respiratory tract, sneezing, coughing, burning sensation of throat with constricting sensation of the larynx and difficulty in breathing.

Symptoms/injuries after skin contact: Prolonged contact with large amounts of dust may cause mechanical irritation. Dust may cause irritation in skin folds or by contact combination with tight clothing.

Symptoms/injuries after eye contact: Redness, pain.

Symptoms/injuries after ingestion: Abdominal pain.

Chronic symptoms: Respiratory difficulties.

Section 5: Fire Fighting Measures

Fire Hazard: Will Not Burn

Extinguishing Media: Use ABC type fire extinguisher for surrounding fire.

Special Firefighting Procedures: None

Unusual Fire and Explosion Hazards: None

Reactivity: None

Protective Equipment for Firefighting: Self-Contained Breathing Apparatus and clothing for chemical fires.

Protection during Firefighting: Use normal individual fire protective equipment.

Section 6: Accidental Release Measures

Personal Precautions / Protective Equipment:

- Do not touch damaged containers or spilled material unless wearing appropriate protective equipment.
- Keep upwind. Keep out of low lying areas. Ventilate closed spaces before entering.

Environmental Precautions:

- Prevent further leakage or spillage and comply with local, state and federal regulations.

Methods / Materials for Containment & Clean-up:

- If product has dried, avoid generation of dust during clean-up of spills.
- Recover the dried product by vacuuming, shoveling or sweeping.
- Vacuum must be fitted with HEPA filter to prevent release of particulates during clean-up.
- Liquid product can be wiped or mopped up and disposed of accordingly.

Section 7: Handling and Storage

Precautions for Safe Handling

- If solution has dried, do not breathe dust. Avoid generation of dust during clean-up of spills.
- Recover the product by vacuuming, shoveling or sweeping.
- Vacuum must be fitted with HEPA filter to prevent release of particulates during clean-up.
- Wear suitable protective clothing, gloves and eye/face protection.
- If airborne dust is generated, use the appropriate NIOSH approved respiratory protection.

Conditions for Safe Storage:

- Store in original tightly closed container.
- Keep away from food, drink and animal feeding stuffs.
- Use care in handling / storage.
- Store in accordance with local / regional / national / international regulation.
- Keep out of reach of children.
- Always use oldest stock first.

Section 8: Exposure Controls / Personal Protection

Control Parameters: Use in accordance with safest practices.

General requirements for respirable fraction (dry solution only)

ACGIH TWA (mg/m^3)	2 mg/m3
ACGIH STEL	2 mg/m3
ACGIH TLV	2 mg/m3
NIOSH REL (TWA) (mg/m3) 1	10 mg/m3
OSHA PEL (TWA) (mg/m3) (Air contaminants)	15 mg/m3
IDLH (mg/m^3)	Not Hazardous
OECD SIDS UNEP TLV	Not Available
BAuATRGS 900	Not Available

TLV: Threshold Limit Value of a chemical substance is a level to which it is believed a worker can be exposed day after day for a working lifetime without adverse health effects.
TWA: (Time Weighted Average - TLV-TWA): average exposure on the basis of a 8h/day, 40h/week work schedule
STEL: (Short Term Exposure Level) is an employee's 15-minute time weighted average exposure at any time during a work day and cannot be repeated more than 4 times in a day.

Personal Protective Equipment:
Use chemical goggles or safety glasses and chemical resistant gloves while handling under normal conditions.


Respiratory Protection:
Use an appropriate NIOSH approved respirator if airborne dust concentrations exceed the appropriate PEL or TLV. All requirements set forth in 29CFR1910.134 must be met.

Protective Gloves:
Nitrile gloves are recommended. Be cautious as the liquid may penetrate the glove. Frequent change is advisable.

Ventilation:
Provide adequate general and local exhaust ventilation.

Eye protection:
Chemical / splash goggles are recommended. Eye wash station must be present.

Other Equipment: None

Section 9 Physical and Chemical Properties

Appearance and Odor:	Odorless
Color:	White to Yellow
Physical State:	Liquid
pH:	6.0 – 8.0
Viscosity:	Not Available
Specific Gravity:	Not Available
Vapor Density:	Not Available
Vapor Pressure:	Not Available
Melting Point:	Not Available
Boiling Point:	Not Available
Flash Point:	Not Applicable
Freezing Point:	Not Available
Percent Volatility:	Not Applicable
Evaporation Rate (baC=1)	Not Available
Solubility in Water:	Not readily soluble (dispersant)
Solubility in Oil:	Not Available
Solubility in Solvents:	Not Available

Section 10: Stability and Reactivity

Reactivity:	Hazardous reaction will not occur under normal conditions.
Stability:	This composition is stable under normal conditions.
Incompatibility (materials to avoid):	Strong Oxidizers
Hazardous Decomposition Products:	Acetic acide, Oxides of carbon
Hazardous Polymerization:	Will not occur.
Conditions to Avoid:	Acidic materials

Section 11: Toxicological Information

Cerium oxide (CAS 1306-38-3)	Acute toxicity –oral- LD50 Mouse 5,000mg/kg
Acute Toxicity:	May cause irritation or burns to eyes, skin and respiratory system.
Skin Corrosion / Irritant:	Irritating to skin.

Serious Eye Damage / Irritant:	Risk of serious damage to eyes.
Respiratory / Skin Sensitization:	Not Classified
Germ Cell Mutagenicity:	Not Classified
Carcinogenicity:	Not Classified
Reproductive Toxicity:	Not Classified
Target Organ Toxicity (Single Exposure):	May affect kidney function. May cause respiratory / skin irritation.
Target Organ Toxicity (Repeated Exposure):	May affect kidney function. May cause respiratory / skin irritation.
Aspiration Hazard:	Not Classified
Teratogenicity:	Not Classified

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

Section 12: Ecological Information

Ecotoxicity:	This product is not expected to be toxic to the environment. Adopt environmental controls to prevent the product from being released in into the environment.
Persistence and Degradability:	Not readily biodegradable.
Bioaccumulative Potential:	Not expected to bioaccumulate.
Mobility in Soil:	No information available.
Other Adverse Effects:	No information available.

Section 13 Disposal Considerations

RCRA 40 CFR 261 Classification: None.

If solution has dried, you may moisten product to be swept.
Dispose in a safe manner in accordance with local, state and federal regulations.

Section 14: Transportation Information

US DOT Classification:	Non-regulated
IMO Classification:	Non-regulated
IATA Classification:	Non-regulated
Proper Shipping Name:	Non-regulated
UN Number:	Non-regulated
Packing Group:	Non-regulated
Label:	Non-regulated
Reportable Quantity:	Non-regulated
Hazard Class:	Non-regulated

Section 15: Regulatory Information

U.S. Federal Regulations:

Comprehensive Environmental Response Compensation and Liability Act of 1980 (CERCLA):
None listed under CERCLA.

Toxic Substance Control Act (TSCA):
All of the components of this material are listed on the TSCA Chemical Substances Inventory.

Clean Water Act (CWA):
None listed under sections of the Clean Water Act.
Contact your local / state authorities to determine if substances are regulated under their jurisdiction.

Clean Air Act (CAA):
None listed under various sections of the Clean Air Act.
Contact your local / state authorities to determine if substances are regulated under their jurisdiction.

Superfund Amendments and Reauthorization Act (SARA) Title III Information:
This product does not contain chemicals subject to annual release reporting requirements Under SARA Title III, Section 313 (40 CFR 372):

European/International Regulations:
Control of Substances Hazardous to Health (COSHH):
Component(s) are listed under various sections of the COSHH regulation. Contact your local authorities to determine if substances are regulated under their jurisdiction.

Scottish Environmental Protection Agency (SEPA):
Component(s) are listed under various sections of SEPA. Contact your local authorities to determine if substances are regulated under their jurisdiction.

Canada:
Contact your local authorities to determining if substances are regulated under their jurisdiction.

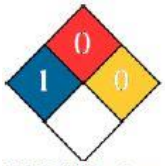
Hazard Classification European Union Directives 67/548/EEC and 1999/45/EC
Safety Phrases: S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S 36 Wear suitable protective clothing.
S 38 In case of insufficient ventilation wear suitable respiratory equipment.

U.S. STATE REGULATORY INFORMATION:
The components of these products are covered under specific State regulations, as denoted below:

CALIFORNIA PROPOSITION 65:
This product does not contain chemicals regulated under California Proposition 65.

U.S. - New Jersey – Right to Know Hazardous Substance List: Not Regulated
International Air Transport Authority (IATA): Not regulated

Section 16: Other Information



HMIS III Rating

Health	1 - Irritation or minor reversible injury possible.
Flammability	0
Physical	0
Personal Protection	E

This Safety Data Sheet (SDS) is intended to comply with the 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).

Full text of other abbreviations

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
