TED PELLA, INC.
Microscopy Products for Science and Industry

Material Safety Data Sheet
Product No. 16058 Pelco® Graphite Aerosol
Issue Date (07-25-06)
Review Date (06-01-12)

Section 1: Product and Company Identification

Product Name: Pelco® Graphite Aerosol
Synonym: AERODAG G
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 mg/m3	ACGIH TLV mg/m3	NTP	IARC	OSHA regulated
Isopropanol (67-63-0)	10-30	400 PPM	200 PPM	No	No	No
Propane (74-98-6)	10-30	1000 PPM	NE	No	No	No
Butane (106-97-8)	10-30	800 PPM	800 PPM	No	No	No
n-Heptane (142-82-5)	30-60	500 PPM	400 PPM	No	No	No
Toluene (108-88-3)	1-5	100 PPM	50 PPM	No	No	No
Graphite (7782-42-5)	1-5	5	2	No	No	No

Section 3: Hazard Identification

Emergency overview
Appearance: Aerosol contents: Black fluid
Immediate effects: Harmful if inhaled or swallowed.
Potential health effects
Primary Routes of entry: Inhalation, ingestion.
Signs and Symptoms of Overexposure:
Eyes: Causes moderate eye irritation.
Skin: May cause moderate skin irritation. The components of this product are not expected to be absorbed through the skin.
Ingestion: Harmful if swallowed.

Inhalation: Vapors and mist irritate the nose and throat. Dusts generated from sanding and grinding on surfaces coated with this product maybe harmful if inhaled. Vapors and mist generated from this product may be harmful if inhaled.
Chronic Exposure: This product contains toluene which in high concentrations can cause liver, kidney and brain damage. Exposure to toluene during pregnancy may affect the growth and development of the fetus. This product contains isopropyl alcohol. Long term exposure to isopropyl alcohol vapors has produced liver, kidney and testicular effects in experimental animals. This product contains graphite which can accumulate in the lung tissue after long-term exposure to the dust. The potential for such exposure from the use of this product is very limited.
Chemical Listed As Carcinogen Or Potential Carcinogen: Toluene (108-88-3)
See Toxicological Information (Section11)
Potential environmental effects
See Ecological Information (Section 12)

Section 4: First Aid Measures
If accidental overexposure is suspected
Eye(s) Contact: If this product is splashed into the eyes, flush eyes immediately with plenty of water for at least 15 minutes.
Skin Contact: If excessive skin contact with this product occurs, flush immediately with plenty of water, followed by washing with soap and water..
Inhalation: If excessive amounts of dust are inhaled, remove to fresh air. Apply artificial respiration and other supportive measures as required. Consult a poison center, emergency room or lung specialist for additional information and guidance.
Ingestion: If swallowed, do not induce vomiting.
Note to physician
Treatment: NIF
Medical Conditions generally Aggravated by Exposure: NIF

Section 5: Fire Fighting Measures
Flash Point: NE
Flammable Limits: NE
Auto-ignition point: NE
Fire Extinguishing Media: Dry chemical, carbon dioxide, water spray or alcohol-resistant foam.
Special Fire Fighting Procedures: Do not use dry chemical extinguishers to control fires involving nitromethane or nitroethane. Do not use straight water streams. Wear protective pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.
Unusual Fire and Explosion Hazards: Will be easily ignited by heat, sparks or flames. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back. Most vapors are heavier than air. They will spread along ground and collect in low or confined areas (sewers, basements, tanks) and can be vapor explosion hazard indoors, outdoors and sewers. Container may explode when heated
Hazardous combustion products: Oxides of carbon
DOT Class: Flammable gas

Section 6: Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled: Eliminate all ignition sources in immediate area. All equipment used when handling the product must be grounded. Do not touch or walk through the spilled material. Stop leak if you can do it without risk. Prevent entry into waterways, sewers, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

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: Store in a cool and well ventilated place away from incompatible materials. Follow all MSDS/Label warnings even after container is emptied.

Storage temperature: Ambient

Storage Pressure: Atmospheric.

Section 8: Exposure Controls / Personal Protection

Engineering Controls

Ventilation required: Provide sufficient mechanical ventilation to maintain exposure below TLV(s). Overexposure to vapors and mists may be prevented by ensuring ventilation controls, local exhaust and/or fresh air entry. NIOSH/MSHA Schedule TC-23C-air purifying or a Schedule TC19C- air supplied respirator may also be used to reduce exposures. Read the manufacture's instructions and literature carefully to determine the type(s) of airborne contaminant(s) against which the respirator is effective and how it is to be properly fitted.

Personal Protection Equipment

Respiratory protection: See Ventilation required. Use fume hood.

Protective gloves: Wear impermeable gloves.

Skin protection: Wear protective clothing.

Eye protection: Vapor tight chemical-type splash goggles should be worn when the possibility exists for eye contact due to splashing or spraying of liquid or the generation of airborne particles or vapors.

Additional clothing and/or equipment: The protective equipment should be constructed of materials which are appropriate to prevent contact with the chemicals listed in the Section 2.

Exposure Guidelines

See Composition/Information on Ingredients (Section 2)

Section 9 Physical and Chemical Properties

Appearance and Physical State: Black fluid

Odor (threshold): Ether-like odor

Specific Gravity (H_2O=1): ND

Vapor Pressure (mm Hg): ND

Vapor Density (air=1): ND

Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND
VOC: 984 g/L
Boiling Point: ND
Freezing point / melting point: ND
pH: ND
Solubility in Water: Nil
Molecular Weight: NA

Section 10: Stability and Reactivity
Stability: Stable
Conditions to Avoid: Heat
Materials to Avoid (Incompatibility): Strong oxidizers
Hazardous Decomposition Products: Oxides of carbon
Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information
Results of component toxicity test performed: Toluene (CAS# 108-88-3): Oral, rat: LD50 = 636 mg/kg. Isopropanol (CAS # 67-63-0): Oral, rat: LD50 = 4700 mg/kg.
Human experience: ND

Section 12: Ecological Information
Ecological Information: ND
Chemical Fate Information: ND

Section 13 Disposal Considerations
RCRA 40 CFR 261 Classification: Care must be taken to prevent environmental contamination from the use of this material. The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws. 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: Consumer Commodity
Hazard Class: 9
Packaging group: NA
UN Number: 8000
Limitations: NA
IATA: Proper shipping name: Aerosol, flammable
Hazard Class: 2.1
Packing group: None
UN Number: UN1950
Limitations: NA
Domestic shipments only: NA

Marine Pollutant: None
Canadian TDG: ND
IMDG Page: ND
Limitations: ND

Section 15: Regulatory Information
United States Federal Regulations
MSDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.
SARA:
SARA Title III: This product contains a chemical which is listed in Section 313 at or above DE MINIMIS concentration. Toluene, CAS number 108-88-3 at less than 5%.
RCRA:
TSCA: All components of this product are listed or excluded from listing.
CERCLA: Contains: Toluene, RQ: 454 Kg
State Regulations
California Proposition 65: This product contains chemical(s) known to the State of California to cause cancer, birth defects or other reproductive harm. Contains: Toluene, CAS number 108-88-3 at less than 5%.
International Regulations
Canada WHMIS: DSL- All components of this product are listed or excluded from listing.
Europe EINECS Numbers: NE

Section 16: Other Information
Label Information: Danger, extremely flammable, Vapors harmful, Harmful or fatal if swallowed or inhaled. Contents under pressure.
European Risk and Safety Phrases: ND
European symbols needed: ND
Canadian WHMIS Symbols: ND
Hazard Rating: Health: **ND**; Fire: **ND**; Reactivity: **ND**
(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

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