

SAFETY DATA SHEET

Product No. 16053, 16053-20, 16053-SPC PELCO® Colloidal Graphite

Issue Date (09-09-14)

Review Date (06-19-2025) Rev. 06

Section 1: Product and Company Identification

Product Name: PELCO® Colloidal Graphite

Synonym: Dag 154

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	Skin Irritant:	Category 2
	Eye Irritant:	Category 2A
GHS08 - Health hazard	Aspiration Hazard:	Category 1
	Specific target organ toxicity:	Category 3
	· single exposure	

Label elements

GHS Pictograms:



GHS02



GHS07



GHS08

Hazard Statements

H225	Highly flammable liquid and vapor.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H336	May cause drowsiness or dizziness.

Precautionary Statements

Prevention:

P210	Keep away from heat, sparks, open flames, hot surfaces - no smoking.
P233	Do not allow contact with water
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:

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or physician.
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.
P331 Do NOT induce vomiting.
P332+P317+P364 If skin irritation occurs: Get medical attention.
Take off contaminated clothing and wash it before reuse.
P337+P313 If eye irritation persists: Get medical attention
P370+P378 In case of fire: Use foam, dry chemical or carbon dioxide 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.

Disposal:

P501 Dispose of contents and/or container according to Federal, State/Provincial and local governmental 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)

Section 3: Composition / Information on Ingredients

<u>Hazardous Component(s)</u>	<u>CAS Number</u>	<u>% w/w*</u>
2-Propanol	67-63-0	60 – 70
Graphite	7782-42-5	10 – 20
2-Methylpentane-2,4-diol	107-41-5	1 – 5
n-Butyl alcohol	71-36-3	1 – 5
1-Methoxy-2-propanol	107-98-2	1 - 5

* 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. Wash clothing before reuse. If symptoms develop and persist, get medical attention.
Eye(s) Contact: Rinse immediately with plenty water, also under eyelids, for at least 15 minutes. Get medical attention.
Ingestion: Aspiration may cause pulmonary edema and pneumonitis. DO NOT induce vomiting unless directed to do so by medical personnel. 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 and Explosion Hazards:	Fire and Explosion hazards are DANGEROUS when this material is exposed to heat or flame. Vapors are heavier than air and may travel to ignition sources and flash back. Closed containers may rupture (due to buildup of pressure) when exposed to extreme heat.
Hazardous Combustion Products:	Oxides of carbon. Hydrocarbons. Toxic and irritating vapors.

Section 6: Accidental Release Measures

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

Environmental precautions:	Do not allow product to enter sewer or waterways.
Clean-up methods:	Evacuate and ventilate spill area; dike spill to prevent entry into water system; wear full protective equipment during clean-up. Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Scrape up as much material as possible. Store in a partly filled, closed container until disposal.

Section 7: Handling and Storage

Precautions to be taken in Handling and Storage:

Handling:	Use only with adequate ventilation. Prevent contact with eyes, skin and clothing. Do not breathe vapor and mist. Wash thoroughly after handling. Do not taste or swallow. Refer to Section 8. Ground and bond all equipment as required (when transferring products). Keep away from heat, spark and flame.
Storage:	For safe storage, store between 5 °C (41°F) and 32 °C (89.6 °F) Keep in a cool, well ventilated area away from heat, sparks and open flame. Keep container tightly closed until ready for use. Ground and bond metal containers for liquid transfer to avoid static sparks. Protect from direct sunlight. Do not pressurize, cut, heat or weld containers. Empty product containers may contain product residue. Do not reuse empty containers.

Section 8: Exposure Controls / Personal Protection

<u>Hazardous Component(s)</u>	<u>ACGIH TLV</u>	<u>OSHA PEL</u>	<u>AIHA WEEL</u>	<u>OTHER</u>
2-Propanol	200 ppm TWA 400 ppm STEL	400 ppm (980 mg/m3) PEL	None	None
Graphite	2 mg/m3 TWA Respirable fraction	5 mg/m3 PEL Respirable fraction 15 mg/m3 PEL Total dust 15 MPPCF TWA	None	None
2-Methylpentane-2,4-diol	10 mg/m3 STEL Aerosol, inhalable 50 ppm STEL Vapor fraction 25 ppm TWA Vapor fraction.	None	None	None
n-Butyl alcohol	20 ppm TWA	100 ppm (300 mg/m3) PEL	None	None
1-Methoxy-2-propanol	50 ppm TWA 100 ppm STEL	None	None	None

Engineering Controls:	Provide local and general exhaust ventilation to effectively remove and prevent buildup of any vapors or mists generated from the handling of this product. Explosion-proof exhaust devices are required.
Respiratory Protection:	Use NIOSH approved respirator if there is potential to exceed exposure limit(s).
Eye/Face Protection:	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.
Skin Protection:	Use impermeable gloves and protective clothing as necessary to prevent skin contact. Gloves should be tested to determine suitability for prolonged contact.

Section 9 Physical and Chemical Properties

Physical State:	Liquid
Color:	Black
Odor:	Alcohol
Odor threshold:	7.5 ppm
pH:	Not available
Vapor Pressure:	31 mm hg
Boiling Point:	> 82.3 °C (> 180.1 °F)
Melting point:	< 0 °C (< -32 °F)
Specific Gravity:	0.875 – 0.900
Vapor Density:	2.07 (air = 1)
Flash Point:	11.1 °C (51.98 °F) Penske Martens closed cup
Flammable/Explosive Limits-lower:	2%
Flammable/Explosive Limits-upper:	12%
Autoignition Temperature:	> 398.8 °C (> 749.84 °F)
Flammability:	Not applicable
Evaporation Rate:	Not available
Solubility in Water:	Soluble
Partition Coefficient (n-octanol/water):	Not available
VOC content:	80%, 710 g/L (calculated)
Viscosity:	200 – 400 cp
Decomposition temperature:	Not available

Section 10: Stability and Reactivity

Stability:	Stable under normal conditions of storage and use.
Hazardous reactions:	None under normal processing. Polymerization may occur at elevated temperature or in the presence of incompatible materials.
Hazardous Decomposition Products:	Oxides of carbon. Hydrocarbons. Irritating organic vapors.
Incompatible materials:	Strong oxidizing agents (peroxides, chlorine, strong acids). Strong acids and strong bases.
Conditions to avoid:	High temperatures. Heat, flames, sparks and other sources of ignition. Store away from incompatible materials.

Section 11: Toxicological Information

Relevant routes of exposure: Skin, Inhalation, Eyes, Ingestion

Potential Health Effects/Symptoms

Inhalation:	May cause respiratory tract irritation. May cause central nervous system effects with nausea, dizziness and headache.
Skin contact:	Causes skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
Eye contact:	Causes eye irritation. Exposure to vapor may cause tearing of the eyes, irritation and burning sensation.
Ingestion:	May cause gastrointestinal tract irritation if swallowed. Principal hazard of ingestion is aspiration into the lungs and subsequent pneumonitis.

<u>Hazardous Component(s)</u>	<u>LD50s and LC50s</u>	<u>Immediate and Delayed Health Effects</u>	<u>NTP Carcinogen</u>	<u>IARC Carcinogen</u>	<u>OSHA Carcinogen*</u>
2-Propanol	Oral LD50 (Rat) = 5,045 mg/kg Oral LD50 (Mouse) = 3,600 mg/kg Oral LD50 (Rabbit) = 6,410 mg/kg Oral LD50 (Rat) = 4.7 g/kg Oral LD50 (Mouse) = 4.5 g/kg Oral LD50 (Rabbit) = 8.0 g/kg Oral LD50 (Rabbit) = 5.03 g/kg Dermal LD50 (Rabbit) = 12,8000 mg/kg	Irritant, Allergen Central Nervous System	No	No	No
Graphite	None	Lung	No	No	No
2-Methylpentane-2-4-diol	Oral LD50 (Rat) = 4.79 g/kg Oral LD50 (Mouse) = 3.5 g/kg	Irritant Central Nervous System	No	No	No
n-Butyl alcohol	Oral LD50 (Rat) = 790 mg/kg Dermal LD50 (Rabbit) = 3,400 mg/kg	Irritant, Allergen Central Nervous System Ear, Eyes	No	Group 2B	No
1-Methoxy-2-propanol	Oral LD50 (Rat) = 36 g/kg Oral LD50 (Rat) = 5.71 g/kg Oral LD50 (Rat) = 7.51 g/kg Oral LD50 (Mouse) = 10.8 g/kg Oral LD50 (Rabbit) = 5.3 g/kg Dermal LD50 (Rabbit) = 13 g/kg	Irritant, Developmental, Central Nervous System	No	No	No

*Specifically Regulated

Section 12: Ecological Information

Ecological Information: Do not empty into drains / surface water / ground water.

Section 13 Disposal Considerations

Information provided is for unused products only.

Recommended method of disposal: Follow all local, state, federal and provincial regulations for disposal.

Hazardous waste number: Waste from this product may be hazardous as defined under the Resource Conservation and Recovery Act (RCRA) 40 CFR 261. D001: Ignitable.

Section 14: Transportation Information

The transport information provided in this section only applies to the material/formulation itself, and is not specific to any package/configuration.

U.S. Department of Transportation Ground (49 CFR)

Proper shipping name: Paint
Hazard class or division: 3
Identification number: UN 1263
Packing group: II

International Air Transportation (ICAO/IATA)

Proper shipping name: Paint
Hazard class or division: 3
Identification number: UN 1263
Packing group: II

Water Transportation (IMO/IMDG)

Proper shipping name: Paint
Hazard class or division: 3
Identification number: UN 1263
Packing group: II

Section 15: Regulatory Information

United States Regulatory Information

TSCA 8 (b) Inventory Status: All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

TSCA 12 (b) Export Notification: None above reporting de minimis.

CERCLA/SARA Section 302 EHS: None above reporting de minimis.

CERCLA/SARA Section 311/312: Immediate Health, Delayed Health, Fire

CERCLA/SARA Section 313: 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 (40 CFR 372).
n-Butyl alcohol (CAS# 71-36-3)

CERCLA Reportable quantity: 2-Propanol (CAS# 67-63-0)

California Proposition 65: No California Proposition 65 listed chemicals are known to be present.

Canada Regulatory Information

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

Section 16: Other Information

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

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.