TED PELLA, INC.
Microscopy Products for Science and Industry

SAFETY DATA SHEET

Product No. 821-1, 821-3 Crystalbond™ 509-1, 509-3 Light Amber, Clear
Issue Date (06-01-15)
Review Date (02-19-2025) Rev: 03

Section 1: Product and Company Identification

Product Name: Crystalbond™ 509 Light Amber, Clear
Synonym: Mounting Adhesive Polymer
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: **WARNING**

GHS07 – Irritant	Acute Toxicity, Oral:	Category 5
	Skin Irritant:	Category 2
	Eye Damage:	Category 2B

Label elements
GHS Pictograms:

GHS07

Hazard-determining components: Ethylene Glycol - Phthalic Anhydride Polymer

Hazard Statements

H303	May be harmful if swallowed.
H315	Causes skin irritation.
H320	Causes eye irritation.

Precautionary Statements

P261	Avoid breathing dust, fume, gas, mist, vapors, spray.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves.
P281	Use personal protective equipment as required.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P332+P313	If skin irritation occurs, get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes; remove contact lenses, if present and easy to do so. Continue rinsing.
P337+P313	If eye irritation persists, get medical attention/advice.

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

Hazardous Component(s)	CAS Number	EC Number	% w/w	GHS Product Identifier
Phthalic Anhydride	85-44-9	201-607-5	60.0 - 90.0%	H303 Acute Toxicity, Oral, Cat 5 H315 Skin Corrosion/Irritation, Cat 2 H320 Eye Damage/Irritation, Cat 2B
Ethylene Glycol	107-21-1	203-476-3	10.0 – 40.0%	H302 Acute Toxicity, Oral, Cat 4 H373 STOT RE, Respiratory, Cat 2

Note: This composition is a polymerized solid mixture as a solid.

Section 4: First Aid Measures

Eye Exposure:

Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes.
Seek immediate medical attention.
If a physician is not immediately available, eye irrigation should be continued for an additional 15 minutes.

Hot fluid product:
Cool burns with plenty of low-pressure water and get immediate medical attention.

Skin Exposure:

Immediately wipe excess material off skin with a dry cloth then wash with plenty of soap and water for at least 5 minutes.
Seek medical attention if irritation develops or persists.
Remove contaminated clothing and shoes and clean thoroughly before re-use.

Hot fluid product:
Immediately cool skin with water and cold packs for at least 15 minutes.
Do not put ice directly on skin.
Do not attempt to remove solidified wax from the skin as severe tissue damage may result.
Get immediate medical attention.

Inhalation:

Remove from immediate source of exposure and assure that victim is breathing.
If not breathing, administer cardio-pulmonary resuscitation (CPR).
If breathing is difficult, administer oxygen if available.
Seek medical attention.

Ingestion:

If swallowed, DO NOT induce vomiting.
If victim is conscious and alert, give 1-2 glasses of water to drink.
Do not give anything by mouth to an unconscious person.
Seek medical attention immediately.
Do not leave victim unattended.
To prevent aspiration of swallowed product, lay victim on side with head lower than waist.
Vomiting may occur spontaneously.
If vomiting occurs and the victim is conscious, give water to further dilute the chemical.

Medical Conditions Possibly Aggravated by Exposure:

Inhalation of product may aggravate existing chromic respiratory problems such as asthma, emphysema or bronchitis.
Skin contact may aggravate existing skin disease.

Section 5: Fire Fighting Measures

Flash Point:	>263ºC (505ºF)
Flammable Limits:	Not determined
Fire Extinguishing Media:	Use dry chemical, foam, or carbon dioxide to extinguish flames.
Special Fire Fighting Procedures:	Firefighters should wear NIOSH/MSHA approved positive pressure breathing apparatus with full face piece and full chemical resistant protective clothing. Dike area to prevent runoff and contamination of water sources. Dispose of fire control water later.
Unusual Fire and Explosion Hazards:	None.

Section 6: Accidental Release Measures

Personal Protection:	Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. Use NIOSH approved respirator where mist occurs.
Spill cleanup:	Avoid breathing dust. Use vacuuming or sweeping compound for cleanup. Do not dry sweep or use methods that increase dusting. Prevent entry into sewers and waterways. Flush area with water to complete cleanup.
Waste Disposal Methods:	Dispose of waste according to Federal, State and Local Regulations.

Section 7: Handling and Storage

Handling:	Avoid contact with eyes, skin and clothing. Avoid breathing dust and vapors generated when melted. Keep container closed. Promptly clean residue from closures with cloth dampened with water. Promptly clean up spills.
Storage:	Store in an area that is cool, dry, and well ventilated. Water contamination should be avoided. Store in clean plastic or steel containers.

Section 8: Exposure Controls / Personal Protection

Hazardous Component(s)	CAS Number	EC Number	TLV (mg/m^3)	PEL (mg/m^3)
Phthalic Anhydride	85-44-9	201-607-5	1 ppm	1 ppm
Ethylene Glycol	107-21-1	203-476-3	50 ppm	50 ppm

Engineering Controls:	Use with adequate ventilation. Keep containers closed Safety shower and eyewash fountain should be within direct access.
Respiratory Protection:	Airborne concentrations should be kept to lowest levels possible. If vapor, mist or dust is generated, appropriate personal protection equipment and local ventilation controls must be employed. If exposure limits are exceeded and local ventilation is unavailable, a supplied-air respirator or a self-contained NIOSH-approved dust and mist respirator is required.
Skin protection:	Wear body-covering protective clothing and gloves.
Eye protection:	Wear chemical goggles.

Section 9 Physical and Chemical Properties

Appearance:	Solid
Color:	Transparent amber
Odor:	No odor at room temperature; Resin odor upon heating
Specific Gravity (H2O=1):	1.31
Solubility in Water:	Insoluble
Softening point:	110-120 ºF (43-49 ºC)
Melting point:	155-165 ºF (68-74 ºC)
Vapor Pressure (mm Hg):	Nil
Vapor Density (air=1):	>1

Section 10: Stability and Reactivity

Chemical Stability:	Stable
Conditions to Avoid:	Excessive heat, sparks, open flames.
Materials to Avoid (Incompatibility):	None
Hazardous Decomposition Products:	Carbon monoxide, carbon dioxide.
Hazardous Polymerization:	Will not occur.

Section 11: Toxicological Information

Toxicity:	No LC50 data available for this product.
Carcinogenicity:	NTP, IARC or OSHA does not list the components of this product as carcinogenic.
Irritancy:	None known.
Sensitization:	This product has a component that is known to cause human skin or respiratory sensitization.
Mutagenicity:	The components of this product are not reported to produce mutagenic effects in humans.
Embryo Toxicity:	The components of this product are not reported to produce embryo toxic effects in humans.
Teratogenicity:	The components of this product are not reported to produce teratogenic effects in humans.
Reproductive Toxicity:	The components of this product are not reported to produce reproductive effects in humans.

Section 12: Ecological Information

Aquatic Toxicity:	Not determined.
Mobility in Soil:	Not determined.
Persistence/Degradability:	Not determined.
Environmental Stability:	Controls should be engineered to prevent release to the environment, including procedures to prevent spills, atmospheric release and release to waterways.
Bioaccumulation/Accumulation:	Not determined.

Section 13 Disposal Considerations

Disposal Method:	Dispose in accordance with federal, state and local regulations and permits.

Section 14: Transportation Information

US DO:	Not regulated for hazardous material transportation.
IATA:	Not regulated for hazardous material transportation.
IMO:	Not regulated for hazardous material transportation.
Marine Pollutant:	No
Canadian TDG:	Not regulated for hazardous material transportation.

Section 15: Regulatory Information

TSCA: All ingredients of this material are listed on the TSCA inventory.
CERCLA: No reportable quantity established for this material.

SARA Title III:
Sections 302, 304, 313: This product does not contain any substances reportable under these sections.

SARA: Sections 311, 312:

Hazard Classes	**Yes/No**
Fire Hazard	No
Reactivity Hazard	No
Pressure Hazard	No
Immediate Hazard	Yes
Delayed Hazard	No

International Regulations

International Inventory	**Status**
Canada (DSL)	Yes
Europe (EINECS/ELINCS)	Yes
Australia (AICS)	Yes
Japan (MITI)	Yes
South Korea (KECL)	Yes

California Prop. 65
WARNING: This product does not contain any ingredients which is/are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov

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).

NFPA Ratings (scale 0 – 4)	Health, 1 Flammability, 1 Reactivity, 0 Personal Protection, H	
HMIS Ratings (scale 0 – 4)	Health, 1 Flammability, 1 Reactivity, 0 Personal Protection, H	

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
