TED PELLA, INC.
Microscopy Products for Science and Industry

Safety Data Sheet

Product No. 821-4 Crystalbond™ 590
Issue Date (06-01-15)
Review Date (08-31-17)

Section 1: Product and Company Identification

Product Name: Crystalbond™ 590
Synonym: Mounting Adhesive
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

2.1 Classification of the substance or mixture

GHS Pictograms: NA
GHS Categories: NA

2.2 Label elements

Hazard Pictograms: NA
Signal Word: NA
Hazard Statements: NA
Precautionary Statements: NA

2.3 Other hazards

Health Effects:
NFPA Hazard Rating: Health: 1; Fire: 1; Reactivity: 0
HMIS® Hazard Rating: Health: 1; Fire: 1; Reactivity: 0
(0=least, 1=Slight, 2=Moderate, 3=High, 4=Extreme)

Results of PBT and vPvB assessment:
PBT: ND
vPvB: ND

Emergency overview
Appearance: Brown solid
Immediate effects: ND
Potential health effects
Primary Routes of entry: ND
Signs and Symptoms of Overexposure: ND
Eyes: NA
Skin: If in molten state, exposure to skin will cause severe thermal burn.
Ingestion: NA

Inhalation: NA
Chronic Exposure: ND
Chemical Listed as Carcinogen or Potential Carcinogen: None
See Toxicological Information (Section 11)

Potential environmental effects

See Ecological Information (Section 12)

Section 3: Composition / Information on Ingredients

Principle Components (chemical and common names) **(Cas. No)**	**%**	**OSHA PEL mg/m3**	**ACGIH TLV mg/m3**	**NTP** Carcinogen	**IARC** Carcinogen	**OSHA regulated** Carcinogen
Barium Sulfate (7727-43-7) EC-No. 231-784-4	20.0-40.0%	10	10	No	No	No
Shellac (9000-59-3) EC-No. 232-549-9	60.0-80.0%	NE	NE	No	No	No

---

Section 4: First Aid Measures

If accidental overexposure is suspected

Eye(s) Contact: Hold eyelids open and flush with a steady, gentle stream of water for at least 15 minutes. Seek immediate medical attention, preferably with an ophthalmologist. 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 Contact: 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: 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.

Note to physician

Treatment: ND

Medical Conditions generally 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: ND
Flammable Limits: ND
Auto-ignition point: ND
Fire Extinguishing Media: Use water spray, dry chemical, foam, or carbon dioxide to extinguish flames. Use

water spray to cool fire-exposed containers. Water or foam may cause frothing.
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
Hazardous combustion products: Carbon dioxide, carbon monoxide.
DOT Class: None

Section 6: Accidental Release Measures
Steps to be Taken in Case Material is Released or Spilled:
Personal protection: Wear chemical goggles, body-covering protective clothing, chemical resistant gloves, and rubber boots. Use NIOSH approved respirator where mist occurs.
Spill clean-up: Avoid breathing dust. Use vacuuming or sweeping compound for clean-up. Do not dry sweep or use methods that increase dusting. Prevent entry into sewers and waterways. Flush area with water to complete clean-up.
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:

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. Do not empty bags directly into vessels containing combustible vapors.
Storage:	Store in an area that is cool, dry, and well ventilated. Water contamination should be avoided. Store in clean plastic or steel containers. Keep away from heat, sparks and open flame.
Storage temperature:	Ambient
Storage Pressure:	NA

Section 8: Exposure Controls / Personal Protection
Engineering Controls

Ventilation required:	Good industrial hygiene practice requires that employee exposure be maintained below the recommended TLV. This is preferably achieved through the provision of adequate ventilation where necessary. Where dust cannot be controlled in this way, personal respiratory protection should be employed.

Personal Protection Equipment

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:	Body-covering protective clothing and gloves.
Eye protection:	Chemical goggles.
Additional equipment:	Safety shower and eyewash fountain.

Exposure Guidelines
See Composition/Information on Ingredients (Section 3)

Section 9 Physical and Chemical Properties
Appearance and Physical State: Solid brown stick.
Odor (threshold): Odorless (NA)
Specific Gravity (H_2O=1): 2.3
Vapor Pressure (mm Hg): ND

Vapor Density (air=1): ND
Percent Volatile by volume: ND

Evaporation Rate (butyl acetate=1): ND
Boiling Point: ND
Melting point: 80-120ºC
Thermal decomposition: >160ºC
pH: ND
Solubility in Water: Insoluble (soluble in acetone an alcohols)
Molecular Weight: ND

Section 10: Stability and Reactivity
Stability: Stable
Conditions to Avoid: Excessive heat, sparks, open flames.
Materials to Avoid (Incompatibility): None
Hazardous Decomposition Products: Carbon monoxide, carbon dioxide may be formed on burning. Heating in air may produce irritating acetaldehydes and acetic acid.
Hazardous Polymerization: Will not occur.

Section 11: Toxicological Information
Results of component toxicity test performed: ND
Human experience: ND
This product **does not** contain any compounds listed by NTP or IARC or regulated by OSHA as a carcinogen.

Section 12: Ecological Information
Ecological Information: Slightly hazardous to water. Low ecological toxicity. Completely biodegradable.
Chemical Fate Information: ND

Section 13 Disposal Considerations
RCRA 40 CFR 261 Classification: ND
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: Not regulated.
IATA: Proper shipping name: Not regulated.
IMO: Proper shipping name: Not regulated.
Marine Pollutant: No
Canadian TDG: Not regulated.

Section 15: Regulatory Information
United States Federal Regulations
SDS complies with OSHA's Hazard Communication Rule 29, CFR 1910.1200.
SARA Title III:
Sections 302, 304, 313: Does not contain any reportable substance.
Sections 311, 312: Fire hazard – No; Reactivity hazard – No; Pressure hazard – No; Immediate hazard – Yes; Delayed hazard – No.
RCRA: ND
TSCA: All components are listed.
CERCLA: No reportable quantity established for this material.
State Regulations
California Proposition 65: Not listed.

International Regulations
Canada WHMIS: ND
Europe EINECS Numbers: See section 3.

Section 16: Other Information
Label Information: ND
European Risk and Safety Phrases: ND
European symbols needed: ND
Canadian WHMIS Symbols: ND
Abbreviations used in this document
NE= Not established
NA= Not applicable
NIF= No Information Found
ND= No Data

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.