



Safety Data

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1. COMPANY AND PRODUCT IDENTIFICATION




Duncan Enterprises
 5673 East Shields Avenue
 Fresno, CA 93727
 559-291-4444
 www.duncan.com
 www.aleenes.com

EMERGENCY TELEPHONE NUMBERS
Health Emergencies:
 559-291-4444 7:00 am – 3:30 pm Pacific Std. Time
Spill and Off-Hour Health Emergencies:
 800-424-9300 U.S. and Canada
 703-527-3887 Outside U.S. and Canada (Collect)

Product Name: Tulip Crystal Bond & Crystal Bond Pen
Item number: 31600 & 31601
Product Use/Description: Silaprene adhesive
Restrictions on use: None known

2. HAZARDS IDENTIFICATION




This product is classified according to the Globally Harmonized System (GHS).

Classification:		GHS08 Health Hazard Carc. 2 STOT RE2	H351 Suspected of causing cancer. H373 May cause damage to organs through prolonged or repeated exposure.
		Aquatic Chronic 2	GHS09 Environment H411 Toxic to aquatic life with long lasting effects.
		Acute Tox. 4 Skin Irrit. 2B STOT SE 3 Eye Irrit. 2B	GHS07 H332 Harmful if inhaled. H315 Causes skin irritation. H336 May cause drowsiness or dizziness. H320 Causes eye irritation.
Hazard Statement:	Harmful if inhaled. Causes skin and eye irritation. Suspected of causing cancer. May cause drowsiness or dizziness. May cause damage to organs through prolonged or repeated exposure. Toxic to aquatic life with long lasting effects.		
Other Hazards:	Results of PBT and vPvB assessment PBT: Not applicable. vPvB: Not applicable..		
Signal Word:	Warning		
Precautionary Statement:	If medical advice is needed, have product container or label at hand. Keep out of the reach of children. Read label before use. Do not breathe dust/fume/gas/mist/vapors/spray. Wear protective gloves. Avoid release to the environment.		



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	<p>Wash thoroughly after handling. Use only outdoors or in a well-ventilated area. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Specific treatment (see on this label). IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center/doctor if you feel unwell. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. Get medical advice/attention if you feel unwell. If on skin: Wash with plenty of water. Collect spillage. Take off contaminated clothing and wash it before reuse. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Dispose of contents/container in accordance with local/regional/national/international regulations.</p>
Pictogram(s) by GHS:	   GHS07 GHS08 GHS09

3. COMPOSITION / INFORMATION ON INGREDIENTS

Detailed formulation is submitted by the client and it is proprietary information.

Products are made by physical manipulation and chemical reaction from the ingredients. These ingredient chemicals may not exist as its original formula in final products.

Reportable ingredients (if applicable):

Substance/Composition:	CAS Number:	Percentage/Range:	Trade Secret*
Perchloroethylene	127-18-4	50-100%	*

*The exact concentration is withheld as a trade secret.

4. FIRST AID MEASURES

General Advice:	If you feel unwell, seek medical advice (show the label where possible). Never give anything by mouth to an unconscious person.
On Inhalation:	Remove to fresh air. If not breathing, administer artificial respiration. If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.
On Skin Contact:	Wash contaminated skin with soap and water.
On Eye Contact:	Rinse opened eye for 20 minutes under running water. If eye becomes irritated, obtain medical treatment.
On Ingestion:	Immediately call a doctor.
Acute/Delayed Symptoms:	No further relevant information available.
Medical Advice:	No further relevant information available.
Symptoms /Effects:	No further relevant information available.
Special Treatment Needed:	No further relevant information available.



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5. FIRE FIGHTING MEASURES

Extinguishing Media	
Suitable extinguishing media:	CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam. Use fire fighting measures that suit the environment.
Unsuitable extinguishing media:	No available data.
Protection of Firefighters	
Specific hazards arising from the chemical:	No available data.
Protective equipment for firefighters:	Wear self-contained respiratory protective device.
Special precautions for fire fighters:	No available data.
Will hazardous combustion occur?:	No available data.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation.
Environmental Precautions:	Do not allow to enter sewers/surface or ground water.
Methods for Cleaning Up:	Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust) Dispose of contaminated material as waste in accordance with federal, state, and local regulations. Ensure adequate ventilation.
Emergency Procedures:	Evacuate unnecessary personnel.
Recommended Personal Protective Equipment:	Use appropriate personal protection (PPE).
Emergency Containment/Procedures:	Evacuate unnecessary personnel. Use appropriate personal protection equipment (PPE). Ventilate area.

7. HANDLING AND STORAGE

Safe Storage:	Store in a cool location away from direct heat. Store away from foodstuffs. Keep receptacle tightly sealed.
Safe Handling:	Use only in well ventilated areas. Open and handle receptacle with care. Open containers in a well ventilated area and avoid breathing headspace vapors.
Known Incompatibilities:	No relevant information available.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

Control parameters

Components with limit values that require monitoring at the workplace:			
Chemical Name	ACGIH TLV	OSHA PEL	NIOSH REL
Perchloroethylene (127-18-4)	Short-term value: 685 mg/m ³ , 100 ppm ³ Long-term value: 170 mg/m ³ , 25 ppm BEI	Long-term value: 100 ppm Ceiling limit value: 200; 300* ppm *5-minpeak in any 3 hrs.	Minimize workplace exp. concs.; Pocket Guide App. A
Ingredients with biological limit values:			
Perchloroethylene (127-18-4)	BEI:	3 ppm Medium: end-exhaled air Time: prior to shift Parameter: Tetrachloroethylene	0.5 mg/L Medium: blood Time: prior to shift Parameter: Tetrachloroethylene

Additional information: The lists that were valid during the creation were used as basis.



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Appropriate Engineering Controls:

Ensure all national/local regulations are observed. Avoid all unnecessary exposure.

Individual Protection measures, such as PPE (Personal Protective Equipment):

Personal Protection Equipment:	
Respiratory Protection:	Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.
Eye Protection:	Tightly sealed goggles. Use full face shield over protective eye wear when there is a risk of splash.
Hand Protection:	Protective gloves: the glove materia has to be impermeable and resistant to the product/the substance/the preparation. The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
Skin Protection:	Protective work clothing.
Thermal Protection:	No relevant data specified.
General Safety and Hygiene Measures:	Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.
Further Information:	No relevant data specified.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State/Appearance:	Liquid
Color:	Slight haze.
Odor:	Characteristic
Odor Threshold:	No data.
pH:	No data.
Boiling Point/Range:	121° C (250° F)
Melting Point/Range:	Undetermined.
Flash Point:	Not applicable.
Evaporation Rate:	No data.
Vapor Density:	No data.
Solubility(ies):	Not miscible or difficult to mix.
Vapor Pressure (at 20° C (68°F):	19.0 hPA (14mm Hg)
Relative Density (specific gravity):	1.340
Viscosity:	No data.
Partition Coefficient (n-octanol/water), if applicable:	No data.
Explosive Properties:	Product does not present an explosion hazard.
Flammability: (Solid, gas)	No data.
Flammability Limit in Air: Upper/Lower	No data.
Autoignition temperature:	Product is not self-igniting
Decomposition temperature:	No data.
Solvent content:	Organic solvents: 70.0% Solids content: 30.0%
Other information:	Weight per Gallon: 11.15 lbs.

10. STABILITY AND REACTIVITY



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Chemical Stability:	No data.
Thermal decomposition / conditions to be avoided:	No decomposition if used according to specifications.
Conditions to avoid:	Heat, flames, sparks, hot surfaces, ignition sources.
Incompatible Materials:	Strong oxidizers, acids and bases.
Hazardous Decomposition Products:	Carbon monoxide and carbon dioxide, Hydrogen chlorid (HCl), Chlorine, Phosgene
Possibility of Hazardous Reactions:	No dangerous reactions known.
Reactivity:	No data.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure:

Eye Contact –Serious Eye Damage or Irritation	Irritating effect. Vapors may be irritating to the eyes.
Skin Contact – Skin Corrosion, Sensitization or Irritation:	Irritant to skin and mucous membranes.
Ingestion – Carcinogenicity/Aspiration Hazard:	
Inhalation – Respiratory Sensitization/Toxicity:	Sensitizing effect through inhalation is possible with prolonged exposure.

Additional toxicological information: the product shows the following dangers according to internally approved calculation methods for preparations:.

Carcinogenic categories:	IARC (International Agency for Research on Cancer): 127-18-4 Perchloroethylene – 2A NTP (National Toxicology Program): 127-18-4 Perchloroethylene – R OSHA-Ca (Occupational Safety & Health Administration): None of the ingredients is listed.		
Chemical Name: Perchloroethylene (127-18-4)	Oral LD50 2629 mg/kg (rat)	Dermal LD50 x	Inhalation LC50 x

*Estimates for product may be based on additional component data not shown.

12. ECOLOGICAL INFORMATION (NON-MANDATORY)

Toxicity:	
Aquatic toxicity:	No further relevant information available.
Persistence and degradability:	No further relevant information available.
Behavior in environmental systems:	
Bioaccumulative potential:	No further relevant information available.
Mobility in soil:	No further relevant information available.
Ecotoxicological effects:	
Remark:	Toxic for fish
Additional ecological information:	
General notes:	At present there are no ecotoxicological assessments.
Results of PBT and vPvB assessment:	PBT: Not applicable. vPvB: Not applicable.
Other adverse effects:	No further relevant information available.

13. DISPOSAL CONSIDERATIONS (NON-MANDATORY)

Disposal instructions:	Remove waste in accordance with local and/or national regulations. Do not discharge into drains or the environment. Transfer to suitable container and arrange for collection by specialized disposal company.. Dispose in a safe manner in accordance with local/national regulations.
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Local disposal regulations:	No data.
Hazardous waste code:	No data.
Contaminated packaging:	No data.
Waste residues:	No data.

14. TRANSPORTATION INFORMATION (NON-MANDATORY)

	DOT	IMDG	IATA
UN/ID number:	UN3082	UN3082	UN3082
Proper shipping name:	Environmentally hazardous substances, liquid, n.o.s. (Tetrachloroethylene)	Environmentally hazardous substances, liquid, n.o.s. (Tetrachloroethylene), marine pollutant environmentally hazardous substance, liquid.	N.O.S. (Tetrachloroethylene)
Transport hazard class:	  <p>Class: 9 – Miscellaneous dangerous substances and articles. Label: 9</p>		
Packing group (if applicable):	III – Minor Danger	III – Minor Danger	III – Minor Danger
Environmental hazards:	Product contains environmentally hazardous substances: perchloroethylene.		
Marine pollutant:	Yes		
Special Marking:		No available data.	
Special Precautions for User: Warning: Miscellaneous dangerous substances and articles.			
Danger code (Kemler): 90			
EMS Number: F-A,S-F			
Segregation Groups: Liquid halogenated hydrocarbons			
Transport in bulk according to Annex II of MARPOL 73/78 and IBC Code	Not applicable.		
Emergency Response Guide Number: None	EmS-No:	None	

Pictograms

<u>US:</u> X	<u>IATA; IMDG:</u> X	<u>Marine Pollutant:</u> X
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15. REGULATORY INFORMATION (NON-MANDATORY)

US Federal Regulations	
TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D):	No data.
CERCLA (Superfund) reportable quantity (lbs.) (40 CFR 302.4)	No data.
OSHA Specifically Regulated	No data.



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Substances (29 CFR 1910.1001-1050):					
Hazard Categories:					
Immediate Hazard:			No data.		
Delayed Hazard:			No data.		
Fire Hazard:			No data.		
Pressure Hazard:			No data.		
Reactivity Hazard:			No data.		
Section 302 Extremely Hazardous Substance (40 CFR 355, Appendix A):			None of the ingredients are listed.		
Chemical Name:	CAS Number:	Reportable Quantity:	Threshold planning quantity:	Threshold planning quantity, lower value:	Threshold planning quantity, upper value:
None	X	X	X	X	X
Superfund Amendments and Reauthorization Act of 1986 (SARA)					
SARA 304 Emergency release notification:		No data.			
SARA 311/312 (40 CFR 370) Hazardous Chemical:		Immediate (acute) health hazard Delayed (chronic) health hazard			
SARA 313 (TRI reporting):		<u>Chemical Name:</u> X	<u>CAS Number:</u> X	<u>% by wt.</u> X	
Drug Enforcement Administration (DEA) (21 CFR 1308.11-15):		No data			
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (Haps) List:		No data.			
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):		No data.			
Safe Drinking Water Act (SDWA):		No data.			
Canadian Domestic Substances List (DSL):		All components of this product are on the DSL (Canada Domestic Substance list) or are exempt from DSL requirements.			
State Regulations					
TSCA:		All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.			
SARA/Title III:		This product does not contain any substances at or above the reported threshold under Section 313, based on available data.			
Conforms to Non-Toxic ASTM-4236:		Products are certified in a program of toxicological evaluation by a nationally recognized toxicologist to contain no materials in sufficient quantities to be toxic or injurious to humans or to cause acute or chronic health problems. These products are certified to be labeled in accordance with the voluntary chronic hazard labeling standard ASTM D-4236. In addition, there is no physical hazard as defined within 29 CFR Part 1910.1200(c).			
California Proposition 65 Warning:		This product contains the following chemicals that are known to the State of California to cause cancer, birth defects, or other reproductive harm: None			
EPA (Environmental Protection Agency):		None of the ingredients are listed.			
TLV (Threshold Limit Value established by ACGIH)		127-18-4 perchloroethylene: A3			
NIOSH-Ca (National Institute for Occupational Safety and		None of the ingredients are listed.			



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Health)	
National regulations:	Water hazard class: Water hazard class 3 (self-assessment): extremely hazardous for water.
Unless a concentration is specified in Section 2 of the SDS, the above chemicals(s) are present in trace amounts.	

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).



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16. OTHER INFORMATION

These recommendations and information contained in this SDS have been compiled from sources believed to represent the most current information available when the SDS was prepared. However, the manufacturer / distributor of this product does not provide any warranty, guaranty of representation as to the correctness or sufficient of this information. If this material is used in large amounts and/or an unusual manner, the user is obliged to determine what safety measures are appropriate, including the applicable and relevant workplace and

Table of Abbreviations

ACGIH:	American Conference of Governmental Industrial Hygienists	LD:	Lethal Dose
ANSI:	American National Standards Institute	MARPOL:	Marine Pollution
ASTM:	American Society for Testing Materials	mg / kg:	Milligram per Kilogram
°C:	Degrees Centigrade	mm:	Millimeter
CAA:	Clean Air Act	MSHA:	Mine Safety and Health Administration
CAS:	Chemical Abstract Service	N/A:	Not Applicable
CERCLA:	Comprehensive Environmental Response, Compensation & Liability Act	NFPA:	National Fire Protections Association
CFR:	Code of Federal Regulations	NIOSH:	National Institute for Occupational Safety and Health
CPR:	Controlled Products Regulations	NTP:	National Toxicology Program
DEA:	Drug Enforcement Act	OEL:	Over Exposure Limit
DOT:	Department of Transportation	OSHA:	Occupational Safety and Health Administration
DSL:	Canadian Domestic Substances List	PEL:	Permissible Exposure Limits
EmS:	Emergency Medical Goods Services	ppm	Parts Per Million
EPA:	Environmental Protection Agency	SARA	Superfund Amendment and Reauthorization Act
°F:	Degrees Fahrenheit	STEL	Short-Term Exposure Limit
FDA:	Food & Drug Administration	SDS:	Safety Data Sheet
g/l:	Grams per Liter	SDWA:	Safe Drinking Water Act
HAPs:	Hazardous Air Pollutants	TLV:	Threshold Limit Value
Hg:	Mercury	TRI:	Toxics Release Inventory
HMIS:	Hazardous Materials Identification System	TSCA	Toxic Substances Control Act
HNOC:	Hazard(s) Not otherwise classified	TWA	Time – Weighted Average
IARC:	International Agency for Research on Cancer	U.N.	United Nations
IATA:	International Air Transport Association	WHMIS	Workplace Hazardous Materials Information System
ID:	Identification / Identity	>	Greater Than
IDLH:	Immediate Danger to Life or Health	<	Less Than
IMDG:	International Maritime Dangerous Goods	73/78:	1973 & 1978
LC:	Lethal Concentration		

environmental regulations pertaining to handling, use and disposal.

Creation Date:	Version: 2	Revision date:
5/28/16	1	
	2	4/27/18 - sp

END SAFETY DATA SHEET