

SAFETY DATA SHEETS

This SDS packet was issued with item:

072797850

The safety data sheets (SDS) in this packet apply to the individual products listed below. Please refer to invoice for specific item number(s).

072797827 072797835



MATERIAL SAFETY DATA SHEET

Product Identity:

DIE SPACER (ASSORTED COLORS)

SECTION I.

Identification

REVISION NOVEMBER 2010

Manufacturer

Dental Ventures of America Inc.
1787 Pomona Rd. Suite I
Corona, CA. 92880

Emergency Telephone Number:

Infotrack (800) 535 - 5053

Product Information Number:

(951) 270 - 0606

SECTION II.

Composition/Information on Ingredients

UN #1193

Packing Group II

SECTION III.

Hazardous Ingredients/Identify Information

HAZARDOUS COMPONENTS	CAS.NO.	OSHA PEL	ACGIH TLV	OTHER RECOMMENDED	% (Optional)
Methyl Ethyl Ketone	78-93-3	200 ppm	200 ppm	N.A.	>50
Aromatic 100*	64742-95-6	N.A.	100 ppm	N.A.	>3
PM Acetate	108-65-6	N.A.	100 ppm	N.A.	>4
*Component Parts of Aromatic 100					
*Trimethylbenzenes	25551-13-7	N.A.	100 ppm	N.A.	>2
*Pseudocumene	95-63-6	N.A.	100 ppm	N.A.	>1
*Copper Phthalo Blue NFNC (in blue)	147-14-8	N.A.			
(May be present in pigment)*					
Carbon Black*	1333-86-4	3.5 mg/M3	3.5mg/M3	N.A.	
Crystalline Silica*	14808-60-7	0.1mg/M3	0.1mg/M3	N.A.	
May be present: **					
Xylene**	1330-20-7	100 ppm	100 ppm		
Cumene**	98-82-8	50 ppm	50 ppm		
Iron Oxides**	1309-37-1	5 mg/M3	5 mg/M3		
Manganese Oxide**	1317-34-6	5mg/M3	5 mg/M3		
Non-hazardous Ingredients					
Acrylic Copolymers - proprietary pigments. Lt Organic Yellow 31837-42-0; Organic Red 2786-76-7; Titanium Dioxide 13463-67-7 Special B.					
Hazard Rating: Reactivity: 1	Fire: 3	Toxicity: 2	UN 1993	UN 1263	

SECTION IV.

First Aid Measures

Inhalation:	Remove to fresh air.
Eye Contact:	Substance can cause irritation and transient corneal injury. Flush well with water. Consult physician.
Skin:	Wash well with soap and water.
Ingestion:	Do not induce vomiting. Keep person warm and quiet. Get medical attention.

SECTION V.

Fire-Fighting Measures

Flash Point:	-4 C/25 F S.F.C.C.	Flammable Limits:	516 C/961 F	LEL - 1 est.	UEL - 12 est.
Extinguishing Media	Alcohol Foam, CO 2, Dry Chemical, Water Spray				
Special Fire Fighting Procedures:					
For Bulk Quantity Product:	Wear self-contained breathing apparatus (pressure-demand MSHA/NIOSH-approved or equivalent) and full protective gear. Use water spray to cool containers.				
For Small Bottle:	Smother with water, wet blanket or towel. cover with sand, dirt. Keep area isolated.				
Unusual Fire and Explosion Hazards:	Vapors can travel to a source of ignition such as a bunsen burner or furnace and flash back.				
	Material can form explosive vapors with air.				

Product: ***DIE SPACER (ASSORTED COLORS)*****SECTION VI.****Accidental Release Measures**

Keep all unprotected and unnecessary people away. Remove all sources of ignition.
 Wear MSHA/NIOSH approved respirator. Pressure-demand, self-contained breathing apparatus is preferred.
 Dike and contain spill with inert material (sand, earth, etc.) and transfer the liquid and solid separately to containers for disposal.

Small Spills: Clean with paper towels and dispose of properly or remove to out of doors to allow vapors to evaporate.
 Caution: Floors may be slippery. Keep out of water supplies.

SECTION VII.**Handling and Storage**

Store away from excessive heat or open flame. Store bottles upright. Make sure caps secured tightly. Limit storage of flammable material to approved areas. For bulk transfer, ground all containers.
 Keep away from spark producing tools or equipment.

SECTION VIII.**Exposure Controls / Personal Protection**

Respiratory Protection: None required if good ventilation is maintained.
 For Bulk: NIOSH approved vapor mask as required for PM Acetate.
 Ventilation - Local Exhaust: For high concentration: Explosion proof local exhaust at point of vapor. Keep area well ventilated.
 Protective Gloves: Impervious gloves - latex gloves adequate.
 Eye Protection: Safety goggles or glasses - splashproof.
 Other Protective Clothing or Equip.: Rubber apron; eye bath and safety shower.
 Health Hazard Data: Routes of Entry: Inhalation, Skin, Ingestion
 Health Hazards: Irritant to skin, eyes and respiratory tract. Prolonged breathing can cause dizziness, nausea, headache. Repeated contact can cause defatting and dermatitis.
 Symptoms of Exposure: Solvent vapor or mist can cause headache, nausea, dizziness, incoordination, stupor, and irritation of nose, throat and lungs. Repeated overexposure to methyl ethyl ketone, PM Acetate and Aromatic 100 can cause CNS effects.
 Ingestion: May cause irritation of digestive tract, drowsiness, dizziness, loss of coordination and fatigue.
 Eyes: Direct contact may cause burning, tearing, redness and swelling.
 Proposition 65 Warning: This product contains trace amounts of heavy metals which the State of California have determined are carcinogens or cause reproductive toxicity.(As,Cd,Pb,Hg,and/or Ni are present in trace PPM)

SECTION IX.**Physical and Chemical Properties**

Boiling Point:	Initial	80C/176F
Specific Gravity:		approx. 1
Vapor Pressure:	20C/68F	70 est.
Melting Point:	-86C/-123F	
Vapor Density:	>1	
Evaporation Rate (Butyl Acetate = 1)	>1	
Solubility in Water:	Pigment insoluble. Vehicle and solvent only somewhat.	
Appearance and Odor:	Blue, Red etc. Acetate odor. Thinner: Clear	

SECTION X.**Stability and Reactivity**

Stability: Stable Keep away from excessive heat or open flame.
 Incompatibility: Strong oxidizers.
 Hazardous Decomposition or By-products: Combustion will produce CO₂ and possibly CO.
 Hazardous Polymerization: Will not occur. Keep away from excessive heat or open flame.

Product: ***DIE SPACER (ASSORTED COLORS)*****SECTION XI.****Toxicological Information**

Please refer to Sections III - X.

SECTION XII.**Ecological Information**

Please refer to Sections III - X.

SECTION XIII**Disposal Considerations**

For discard, this is a hazardous waste. RCRA #D001. Reportable quantity is 100 lbs. (40 CFR 302). In accordance with local, state and federal regulation: Incinerate liquid in approved equipment. For small quantities, allow solvent to evaporate in well ventilated areas or outdoors (preferred). Dumping into sewers, on the ground, or into any body of water is strongly discouraged and may be illegal.

SECTION XIV.**Transport Information**

Transport in accordance with local, state and federal regulations.

SECTION XV.**Regulatory Information**

This product is considered hazardous under OSHA Haz. Com. Std. (29CFR 1910.1200). This product is a 'controlled product' under Canadian WHMIS. Under SARA TITLE 3: Section 311/312, this product is a hazardous chemical (see above). Under SARA TITLE 3: Section 313 (40 CFR 372) above de minimis concentrations: Methyl Ethyl Ketone, Trimethylbenzene, Pseudocumene, Cumene. Refer to Section III of this document.

The data herein relates to the product named and is based upon information that Dental Ventures of America, Inc. believes to be reliable and accurate. No warranty expressed or implied is intended. Users of this product have the responsibility to determine the suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. This information is offered solely for your consideration and interpretation.



MATERIAL SAFETY DATA SHEET

Product Identity:

DIE SPACER THINNER

SECTION I.

Identification

REVISION

DECEMBER 2010

Manufacturer

Dental Ventures of America Inc.
1787 Pomona Rd., Suite I
Corona, CA. 92880

Emergency Telephone Number:

Infotrack: (800) 535 - 5053

Product Information Number:

(951) 270 - 0606

SECTION II.

Composition/Information on Ingredients

Generic Description:

Added to another product to make it more liquid.

Use:

Dilute another product.

SECTION III.

Hazardous Ingredients/Identity Information

Hazard Components:	CAS Number	OSHA PEL	ACGIH TLV	OTHER LIMITS	% LIMITS
Methyl Ethyl Ketone*	(78-93-3)	200 ppm	200ppm	STEL=300ppm	70-100

*This ingredient is subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 and of 40 CFR 372.

SECTION IV.

First Aid Measures

Eye Contact: Immediately flush eye with copious amounts of water for 15 minutes. Obtain immediate medical attention.
Skin Contact: Irritation upon direct contact. Remove contaminated clothing and wash affected area with soap and water.
Inhalation: Remove to fresh air. Perform artificial respiration if breathing is difficult. Obtain immediate medical attention. Medical Conditions Generally Aggravated by Exposure: Pre-existing skin disorders. Inhalation of material may aggravate asthma/Inflammatory pulmonary disease. Note to Physician: There is no specific antidote. Treatment directed to control of symptoms. Aspirated material during vomiting may cause lung injury, therefore, gastric lavage after endotracheal intubation most likely procedure, if necessary.

SECTION V.

Fire-Fighting Measures

Flash Point (Method): App25 F (TCC) Flammable Limits: LEL: 1.4% UEL: 11.5%

Extinguishing Media: Water spray, foam or carbon dioxide.

Special Fire Fighting Procedures: Use water spray to cool fire-exposed containers, disperse vapors. Re-ignition is possible. Use self-contained breathing apparatus and protective clothing. Unusual Fire and Explosion Hazards: Vapors may travel distances to ignition. Sources and flash back explosively. This material may produce a floating fire hazard.

SECTION VI.

Accidental Release Measures

In Case Material is Released or Spilled: Remove all possible ignition sources. Spills can be contained with non-combustible materials, i.e. sand or earth. Prevent liquid from entering sewers, watercourses, or low areas. Remove contaminated and waste material to containers for appropriate disposal.

SECTION VII.

Handling and Storage

Handling and Storage:

Flammable, avoid heat, sparks & flames. Use only with adequate ventilation and avoid direct contact with eyes/skin. Ground all metal containers when transferring liquid. Wash thoroughly after handling. Any use of this product in elevated temperature may be hazardous.

Product: ***DIE SPACER THINNER*****SECTION VIII.****Exposure Controls / Personal Protection**

Precautions:	Local Exhaust: Good	Mechanical (General): As Needed.
Protective Clothing or Equipment:	Safety Glasses/Goggles, Butyl gloves and protective clothing to avoid direct contact.	
Respiratory:	Use self-contained breathing apparatus in high vapor concentrations.	
Other:	Avoid direct contact with eyes/skin. Wear protective safety equipment as necessary to minimize contact. Wash hands with soap and water and launder contaminated clothing before use.	

SECTION IX.**Physical and Chemical Properties**

Appearance:	Clear, low viscosity liquid.	Form:	Liquid
Melting Point:	NE		
Vapour pressure: ((mm Hg):	83@75F	Vapour Density: (Air-1)	NE
Viscosity:(20c)	NE	Evaporation Rate: (Butyl acetate=1):	6.0
Water solubility:	Moderately soluble.	Specific Gravity: (H2)=1):	0.86
Boiling Point: (1013 mbar)	App 175 F	Color:	Clear
Smell:	Mild odor.		

SECTION X.**Stability and Reactivity**

Stability: Stable XX	Conditions to Avoid: None known.
Incompatibility (Materials to Avoid):	Caustics, amines, alkanolamines, aldehydes, ammonia, strong oxidizing agents, and chlorinated compounds.
Hazardous Decomposition Products:	Carbon monoxide/dioxide. See Section II.
Hazardous Polymerization:	May Not Occur: XX

SECTION XI.**Toxicological Information**

Route (s) of Entry: Inhalation: Yes	Skin: Yes	Ingestion: Yes
Health Hazards (Acute/Chronic):	Acute: Moderately toxic by ingestion with irritation of mouth, throat and Esophagus accompanied by nausea, abdominal discomfort, vomiting, diarrhea, dizziness & drowsiness. Inhalation at high concentrations causes irritation of respiratory tract with coughing/chest pain and possible loss of consciousness.	

SECTION XII.**Ecological Information**

Data not available.

SECTION XIII.**Disposal Considerations**

Disposal of this product should be in accordance to local, state, provincial and federal regulations.

SECTION XIV.**Transport Information**

Not dangerous according to specifications stated.

SECTION XV.**Regulatory Information**

Designation According to EC Guidelines: Observe normal safety regulations when handling chemicals.

The data herein relates to the product named and is based upon information that Dental Ventures of America, Inc. believes to be reliable and accurate. No warranty expressed or implied is intended. Users of this product have the responsibility to determine the suitability of use and to adopt all necessary precautions to ensure the safety and protection of property and persons involved in said use. This information is offered solely for your consideration and interpretation.



SAFETY DATA SHEET

DIE SPACER THINNER

1. PRODUCT AND COMPANY IDENTIFICATION

Date Revised: September 2017

PRODUCT DESCRIPTION: Die Spacer Thinner

MANUFACTURER

Dental Ventures of America, Inc.
1787 Pomona Rd., Suite C
Corona, 92880, CA.

Emergency Contact: Infotrack 800.535.5053

Emergency Phone: 951.270.0606

Alternative Emergency Phone: 800.228.6696

USE OR APPLICATION: Added to another product to make it more liquid

2. HAZARD(S) IDENTIFICATION

GHS CLASSIFICATIONS

Health:

Eye Irritation, Category 2

Narcotic Effects, Category 3

Physical:

Flammable Liquids, Category 2

SIGNAL WORD

Danger

GHS LABEL ELEMENTS



HAZARD STATEMENTS

H226: Flammable liquid and vapor.

H319: Causes serious eye irritation.

H336: May cause drowsiness or dizziness.

PRECAUTIONARY STATEMENTS

P210: Keep away from heat/sparks/open flames hot surfaces - no smoking.

P271: Use only outdoors or in a well-ventilated area.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P233: Keep container tightly closed.

P240: Ground/bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting/.../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 skin and hands thoroughly after handling.

Response: P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



SAFETY DATA SHEET

DIE SPACER THINNER

2. HAZARD(S) IDENTIFICATION (Continued)

P312: Call POISON CENTER or doctor/physician if you feel unwell.

P264: Wash skin and hands thoroughly after handling.

P303+P361+P353: If on skin (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340: If inhaled: Remove to fresh air and keep at rest in a position comfortable for breathing.

STORAGE:

P403+P233: Store in a well-ventilated place. Keep container tightly closed.

P405: Store locked up.

DISPOSAL:

79441501: Dispose of in a manner consistent with federal, state and local regulations.

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE: Clear, colorless liquid.

IMMEDIATE CONCERNS: R/36/37/38: Irritating to eyes, respiratory system and skin.

POTENTIAL HEALTH EFFECTS

EYES: Severely irritating. If not removed promptly, will injure eye tissue, which may result in permanent damage.

SKIN: Prolonged or repeated contact may cause skin irritation.

INGESTION: Ingestion may cause headache, dizziness, fatigue and CNS depression.

INHALATION: May cause headaches and dizziness.

MEDICAL CONDITIONS AGGRAVATED: Pre-existing eye and skin disorders or lung allergies may be aggravated by exposure.

ROUTES OF ENTRY: Inhalation or direct contact with skin or eyes.

IRRITANCY: Irritating to eyes, respiratory system and skin.

SENSITIZATION: May cause allergic skin reaction.

HEALTH HAZARDS: Danger of cumulative effects.

PHYSICAL HAZARDS: Flammable liquid and vapor. Harmful if swallowed or inhaled. Causes irritation to skin, eyes and respiratory tract. Affects CNS.

3. COMPOSITION /INFORMATION ON INGREDIENTS

Under GHS-OSHA 4.11 the precise composition of this product is withheld as confidential business information (CBI). A more complete disclosure can be provided to a health, or safety professional when necessary.

SUBSTANCES or MIXTURE

Mixture

NO. COMPONENT	CAS.NO	WL%
Methyl ethyl ketone (MEK)	78-93-3	100



SAFETY DATA SHEET

DIE SPACER THINNER

4. FIRST-AID MEASURES

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Get immediate medical attention.

SKIN: Remove contaminated clothing. Wash with soap and water. Get medical attention.

INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

INGESTION: If swallowed, do not induce vomiting. Do not give anything to drink. Obtain immediate medical attention.

SIGNS AND SYMPTOMS OF OVER EXPOSURE:

EYES: Causes eye irritation.

SKIN: Causes irritation to skin.

INGESTION: Gastrointestinal tract irritation and depression of the CNS.

INHALATION: Signs and symptoms of excessive exposure may be CNS effects such as sleepiness and unconsciousness.

ACUTE TOXICITY: R36/37: Irritating to eyes and respiratory system.

CHRONIC EFFECTS: None expected.

5. FIRE-FIGHTING MEASURES

GENERAL HAZARD: Flammable liquid and vapor.

EXTINGUISHING MEDIA: Use alcohol foam, carbon dioxide, or water spray when fighting fires involving this materials.

FIRE FIGHTING EQUIPMENT: As in any fire, wear self-contained breathing apparatus pressure-demand (MSHA/NIOSH approved equivalent) and full protective gear.

FIRE FIGHTING PROCEDURES: Use water spray to keep fire-exposed containers cool and to knock down vapors which may result from product decomposition.

HAZARDOUS DECOMPOSITION PRODUCTS: Combustible by-products of carbon monoxide/dioxide. **COMMENTS:** Exposure to heat above 200C (392F) may release Methyl Methacrylate monomer (CAS 80-62-6). (OSHA PEL, ACGIH TLV = 100ppm).

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILL: Absorb liquid and place in sealed container for disposal. Vapors can travel to an ignition source.

LARGE SPILL: Remove all sources of ignition. Use spark-proof tools. Contain spilled liquid with sand or earth. DO NOT use combustible materials such as sawdust. Absorb liquid and place in sealed container for disposal. Vapors can travel to an ignition source.

ENVIRONMENTAL PRECAUTIONS: WATER SPILL:

Contain spill with dike to prevent entry into sewers. Absorb liquid and place in sealed container for disposal.

GENERAL PROCEDURES: Remove all sources of ignition. Use spark-proof tools.



SAFETY DATA SHEET

DIE SPACER THINNER

7. HANDLING AND STORAGE

GENERAL PROCEDURES: Use with adequate ventilation. Avoid contact with eyes, skin and clothing.

HANDLING: Use with sufficient ventilation to keep employee exposure below recommended limits.

Provide adequate ventilation for storage, handling and use, especially for enclosed or low spaces. Avoid contact of liquid with eyes and prolonged skin exposure. Do not allow product to contact open flame or electrical heating elements because dangerous decomposition products may form.

STORAGE: Store in cool place in original container and protect from sunlight. Keep away from sources of ignition.

STORAGE TEMPERATURE:

Avoid temperatures exceeding 100F/38C and incompatible materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product.

PERSONAL PROTECTIVE EQUIPMENT:

EYES AND FACE: For normal conditions, wear safety glasses. Where there is reasonable probability of liquid contact, wear splash-proof goggles.

SKIN: Nitrile rubber and PVC are not suitable protective materials; Neoprene is recommended.

RESPIRATORY: NIOSH/MSHA approved air purifying respirator with an organ vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

WORK HYGIENIC PRACTICES: Wash with soap and water. Get medical attention if irritation develops or persists.

OTHER USE PRECAUTIONS: Clothing: S24 Avoid contact with skin and clothing. Launder contaminated clothing before reuse.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Liquid

ODOR: Mild ketone odor.

APPEARANCE: Clear, colorless liquid

FLASH POINT AND METHOD: -4C (25F) TAG CC

FLAMMABLE LIMITS: 2.6% to 12.8%

VAPOR PRESSURE: 83mmHg at 24C (75F)

BOILING POINT: 79C (175F)

SOLUBILITY IN WATER: Moderate

EVAPORATION RATE: 6.0 (n-Butyl Acetate=1)

SPECIFIC GRAVITY: 0.86 (water=1)

Page 4 (VOC): 860.000 g/L



SAFETY DATA SHEET

DIE SPACER THINNER

10. STABILITY AND REACTIVITY

STABLE: Yes

HAZARDOUS POLYMERIZATION: No

CONDITIONS TO AVOID: Heat, flames, ignition sources and incompatibles.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Dioxide, Carbon Monoxide and other toxic or irritating compounds may form when heated to decomposition.

INCOMPATIBLE MATERIALS: Strong acids and alkalis, reactive metals and strong oxidizing agents.

11. TOXICOLOGICAL INFORMATION

EYE EFFECTS: Moderately irritating to eyes and skin.

SKIN EFFECTS: Irritating to skin. May cause allergic skin reaction with prolonged contact.

12. ECOLOGICAL INFORMATION

ENVIRONMENTAL DATA: Keep out of storm sewers and ditches which lead to waterways.

No other data is available.

13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

Please refer to Section 8 for Exposure Controls/Personal Protection.

14. TRANSPORT INFORMATION

DOT DEPARTMENT OF TRANSPORTATION/AIR/VESSEL(IMO/IMDG)

UN Number: 1993

UN Proper Shipping Name: Methyl Ethyl Ketone.

TRANSPORT HAZARD CLASS(S) 3

PACKING GROUP NUMBER: II

SAFETY DATA SHEET

DIE SPACER THINNER

15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

313 REPORTABLE INGREDIENTS: Section 313: Methyl ethyl ketone.

CANADA

WHMIS HAZARD SYMBOL AND CLASSIFICATION



WHMIS (WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM): This product is listed on the TSCA Inventory.

WHMIS CLASS: Class B2 - Flammable

16. OTHER INFORMATION

DATE PREPARED: September 2017

SUPERSEDES MSDS: August 2014

HMIS RATING:

RATINGS:

0 = Minimal

2 = Slight

3 = Serious

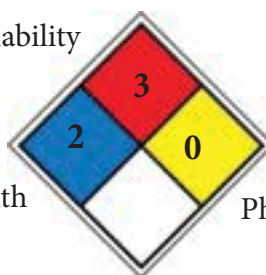
4 = Severe

NFPA CODES

Flammability

Health

Physical Hazard



MANUFACTURER DISCLAIMER:

To the best of our knowledge, the information contained herein is accurate. However, Dental Ventures of America, Inc. does not assume any liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.



SAFETY DATA SHEET DIE SPACER (*Gold*)

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT DESCRIPTION: DVA Die Spacer - Gold

Date Revised: June, 2015

MANUFACTURER

Dental Ventures of America, Inc.
1787 Pomona Rd., Suite C
Corona, 92880, CA.

Emergency Contact: Infotrack: 800.535.5053

Emergency Phone: 951.270.0606

Alternative Emergency Phone: 800.228.6696

USE OR APPLICATION:

The application of die spacer results in additional space between the finished restoration and the natural tooth surface to accommodate the cement used for bonding the restoration.

USES ADVISED AGAINST: Not known.

2. HAZARD(S) IDENTIFICATION

GHS CLASSIFICATIONS

SIGNAL WORD

DANGER

GHS LABEL ELEMENTS

Using the Toxicity Data listed in Section 11 and 12 the product is labeled as follows:



Classification of the substance or mixture

Flam. Liq. 2;	H225	Highly flammable liquid and vapor.
Eye Irrit.2;	H319	Causes serious eye irritation.
Skin Sens. 1;	H317	May cause an allergic skin reaction
Repr. 2;	H361D	Suspected of damaging the unborn child.
STOT SE 3;	H336	May cause drowsiness or dizziness.
Aquatic Acute 1;	H400	Very toxic to aquatic life
Aquatic Chronic 2;	H411	Toxic to aquatic life with long lasting effects.



SAFETY DATA SHEET

DIE SPACER (*Gold*), Pg. 2

HAZARD STATEMENTS

- H225 Highly flammable liquid and vapor.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H336 May cause drowsiness and dizziness.
- H361d Suspected of damaging the unborn child.
- H400 Very toxic to aquatic life.
- H411 Toxic to aquatic life with long lasting effects.

[Prevention]:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat / sparks / open flames / hot surfaces - No smoking.
- P235 Keep cool.
- P240 Ground / bond container and receiving equipment.
- P241 Use explosion-proof electrical / ventilating / light / 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 thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P273 Avoid release to the environment.
- P280 Wear protective gloves / eye protection / face protection.
- P302+352 IF ON SKIN: Wash with plenty of soap and water.
- P303+361+353 IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.
- P304+312 IF INHALED: Call a POISON CENTER or doctor / physician if you feel unwell.
- P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.
- P308+313 IF exposed or concerned: Get medical advice / attention.
- P321 Specific treatment (see information on this label).
- P333+313 If skin irritation or a rash occurs: Get medical advice / attention.
- P337+313 If eye irritation persists: Get medical advice / attention.
- P340 Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P363 Wash contaminated clothing before reuse.
- P370+378 In case of fire: Use extinguishing media listed in section 5 of SDS for extinction.
- P391 Collect spillage.

[Storage & Disposal]

- P403+233 Store in a well ventilated place. Keep container tightly closed.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/national regulations.



SAFETY DATA SHEET

DIE SPACER (*Gold*), Pg. 3

3. COMPOSITION /INFORMATION ON INGREDIENTS

This product contains the following substances that present a hazard within the meaning of the relevant State and Federal Hazardous Substances regulations.

Ingredient/Chemical Designations	Weight %	GHS Classification	Notes
Butanone CAS Number: 0000078-93-3	50 - 75	Flam. Liq. 2;H225 Eye Irrit. 2;H319 STOT SE 3;H336	[1][2]
Copper CAS Number: 0007440-50-8	10 - 25	Not Classified	[1][2]
Zinc powder (stabilized) CAS Number: 0007440-66-6	1.0 - 10	Aquatic Acute 1;H400 Aquatic Chronic 1;H410	[1]
Toluene CAS Number: 0000108-88-3	0.10 - 1.0	Flam. Liq. 2;H225 Repr. 2;H361 Asp. Tox. 1;H304 STOT RE 2;H373 Skin Irrit. 2;H315 STOT SE 3;H336	[1][2] [1][2]
Methyl methacrylate CAS Number: 0000080-62-6	0.10 - 1.0	Flam. Liq. 2;H225 STOT SE 3;H335 Skin Irrit. 2;H315 Skin Sens. 1;H317	 [1][2]

In accordance with paragraph (i) of §1910.1200, the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a trade secret.

[1] Substance classified with a health or environmental hazard.

[2] Substance with a workplace exposure limit.

[3] PBT-substance or vPvB-substance.

*The full texts of the phrases are shown in Section 16.

4. FIRST-AID MEASURES

General	In all cases of doubt, or when symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person.
Inhalation	Remove to fresh air, keep patient warm and at rest. If breathing is irregular or stopped, give artificial respiration. If unconscious place in the recovery position and obtain immediate medical attention. Give nothing by mouth.
Eyes	Irrigate copiously with clean water for at least 15 minutes, holding the eyelids apart and seek medical attention.



SAFETY DATA SHEET

DIE SPACER (*Gold*), Pg. 4

- Skin** Remove contaminated clothing. Wash skin thoroughly with soap and water or use a recognized skin cleanser.
- Ingestion** If swallowed obtain immediate medical attention. Keep at rest. Do NOT induce vomiting.

Most important symptoms and effects, both acute and delayed

Overview

INHALATION/INGESTION: Solvent vapor or mist can cause headache, nausea, dizziness, uncoordination, stupor, irritation of nose, throat, lungs. Irritation of digestive tract. Nervous system depression (fatigue, drowsiness, dizziness).

SKIN/EYES: Burning, tearing, redness and swelling of eyes, transient corneal injury, drying and cracking of skin.

Medical Conditions - Generally Aggravated by Exposure:

Copper/Zinc alloy powder - pre-existing skin disorders, respiration, liver, kidney & Wilson's disease.

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage. See section 2 for further details.

- Inhalation** May cause drowsiness or dizziness.
- Eyes** Causes serious eye irritation.
- Skin** May cause an allergic skin reaction.

5. FIRE-FIGHTING MEASURES

Extinguishing media

Recommended extinguishing media; alcohol resistant foam, CO₂, powder, water spray.
Do not use: water jet.

Special hazards arising from the substance or mixture

Hazardous decomposition:

Hydrogen Gas, CuO, ZnO

Keep away from heat / sparks / open flames / hot surfaces - No smoking. Keep cool.

Ground / bond container and receiving equipment.

Use explosion-proof electrical / ventilating / light / equipment. Use only non-sparking tools.
Take precautionary measures against static discharge. Avoid breathing dust / fume / gas / mist / vapors / spray.



SAFETY DATA SHEET

DIE SPACER (Gold), Pg. 5

Advice for fire-fighters

Special Fire Fighting Procedures:

Wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH-approved or equivalent) and full protective gear. Use water spray to cool containers. Do not use water on open flame. Dike fire area gently with fine, dry sand to extinguish fire. Do not use halogenated hydrocarbon extinguishing agents.

Unusual Fire and Explosion Hazards:

Vapors can travel to a source of ignition and flash back. Material can form explosive vapors with air. Avoid contact with water.

ERG Guide No. 128

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Put on appropriate personal protective equipment (see section 8).

Environmental precautions

Do not allow spills to enter drains or waterways.
Use good personal hygiene practices. Wash hands before eating, drinking, smoking or using toilet.
Promptly remove soiled clothing and wash thoroughly before reuse.

Methods and material for containment and cleaning up

Personal Precautions:

Appropriate protective equipment must be worn for handling spill, see Section 8. If exposed to material, see Section 6.

Environmental Precautions:

Warning - Keep spills and cleaning runoffs out of municipal sewers and open bodies of water.

Waste Disposal Method:

Spill Clean up: Eliminate all ignition sources. Evacuate personnel to safe areas. Ventilate the area. Floor may be slippery, use caution. Soak up with inert absorbent material (Paper towel, sand, silica gel, sawdust). Avoid breathing vapor. Wear MSHA/NIOSH approved respirator.
Note: Spills on porous surfaces can contaminate ground water.

NORMAL DISPOSAL:

Waste Classification:

Methyl Ethyl Ketone (78-93-3), 40 CFR 261.20-.24. For discard, this is classified as a hazardous waste with the characteristic of ignitability and toxicity. RCRA #D001. Reportable quantity is 100 lbs.(40 CFR 302) Incinerate liquid and contaminated solids in accordance with local, state, and federal regulations. (See 40 CFR 268). For small quantity spills, allow solvent in paper towel to evaporate in well ventilated areas or outdoors (preferred).

CONTAMINATED PACKAGING: Empty containers should be taken for local recycling or waste disposal.



SAFETY DATA SHEET

DIE SPACER (*Gold*), Pg. 5

7. HANDLING AND STORAGE

Precautions for safe handling

See section 2 for further details. - [Prevention]:

Conditions for safe storage, including any incompatibilities

Handle containers carefully to prevent damage and spillage.

Incompatible materials: Water, acids, alkalis, chlorinated solvents

Precautions to Be Taken in Handling and Storing:

Limit storage of flammable material to approved areas. Keep properly ventilated. Ground all containers when transferring material. Store bottles away from heat. Keep away from open flame of bunsen burner or furnace. Keep containers tightly sealed. Periodically clean neck of bottle of resin build up (clean inside of cap) to maintain proper seal. Do not smoke when using. Avoid storing near acids, chlorinated solvents. Add thinner as needed, to keep proper thinness of material.

Other Precautions: Storage Temp:

60C/140F min. STEL: 125 ppm MEK. CONTAINERS MAY BE HAZARDOUS WHEN EMPTY.

Emptied containers contain residue. Follow all MSDS and labels. Keep away from spark.

See section 2 for further details. - [Storage]:

Specific end use(s): No data available.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure

CAS No.	Ingredient	Source	Value
0000078-93-3	Butanone	OSHA	TWA 200 ppm (590 mg/m ³)
		ACGIH	TWA: 50 ppm STEL: 100 ppm
		NIOSH	TWA 200 ppm (590 mg/m ³) ST 300 ppm (885 mg/m ³)
		Supplier	No Established Limit
0000080-62-6	Methyl methacrylate	OSHA	TWA 100 ppm (410 mg/m ³)
		ACGIH	TWA: 50 ppm STEL: 100 ppm S
		NIOSH	TWA 100 ppm (410 mg/m ³)
		Supplier	No Established Limit
0000108-88-3	Toluene	OSHA	TWA 200 ppm C 300 ppm 500 ppm (10-minute maximum peak) STEL 150 ppm
		ACGIH	TWA: 20 ppmR
		NIOSH	TWA 100 ppm (375 mg/m ³) ST 150 ppm (560 mg/m ³)
		Supplier	No Established Limit



SAFETY DATA SHEET

DIE SPACER (*Gold*), Pg. 6

Exposure CAS No.	Ingredient	Source	Value
0007440-50-8	Copper	OSHA	TWA 1 mg/m ³ [*Note: The PEL also applies to other copper compounds (as Cu) except copper fume.]
(dusts		ACGIH	TWA: 0.2 mg/m ³ (fume) 1 mg/m ³ and mists)
		NIOSH	TWA 1 mg/m ³ [*Note: The REL also applies to other copper compounds (as Cu) except Copper fume.]
0007440-66-6	Zinc powder (stabilized)	Supplier	No Established Limit
		OSHA	No Established Limit
		ACGIH	No Established Limit
		NIOSH	No Established Limit
		Supplier	No Established Limit

Carcinogen Data

CAS No.	Ingredient	Source	Value
0000078-93-3	Butanone	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0000080-62-6	Methyl methacrylate	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
0000108-88-3	Toluene	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: Yes; Group 4: No;
0007440-50-8	Copper	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;
0007440-66-6	Zinc powder (stabilized)	OSHA	Select Carcinogen: No
		NTP	Known: No; Suspected: No
		IARC	Group 1: No; Group 2a: No; Group 2b: No; Group 3: No; Group 4: No;



SAFETY DATA SHEET

DIE SPACER (*Gold*), Pg. 7

Exposure controls

Respiratory

If workers are exposed to concentrations above the exposure limit they must use the appropriate, certified respirators.

Eyes

Chemical-resistant goggles

Skin

Use chemical-resistant apron or other impervious clothing, and rubber boots if necessary, to avoid contaminating regular clothing and shoes and to prevent skin contact. Chemical resistant gloves.

Engineering Controls

Provide adequate ventilation. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction. If these are not sufficient to maintain concentrations of particulates and any vapor below occupational exposure limits suitable respiratory protection must be worn.

Other Work Practices Use good personal hygiene practices.

Wash hands before eating, drinking, smoking or using toilet. Promptly remove soiled clothing and wash thoroughly before reuse.

See section 2 for further details. - [Prevention]:

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Gold Liquid
Odor	sweet/sharp odor
Odor threshold	Not determined
pH	Not Measured
Melting point / freezing point	-86/-123 F initial
Initial boiling point and boiling range	80 C/176 F initial
Flash Point	-4 C/25 F (SFCC)
Evaporation rate (Ether = 1)	> 1 (Butyl Acetate = 1)
Flammability (solid, gas)	Not Applicable
Upper/lower flammability or explosive limits	Lower Explosive Limit: 1.8 est Upper Explosive Limit: 11.5 est
Vapor pressure (Pa)	70 mmHg est. 20 C/68 F
Vapor Density	> 1
Specific Gravity	0.95 (H ₂ O = 1)
Solubility in Water	Slight
Partition coefficient n-octanol/water (Log Kow)	Not Measured
Auto-ignition temperature	516 C/961 F
Decomposition temperature	Not Measured
Viscosity (cSt)	400 cPs max
% Volatile	> 65%



SAFETY DATA SHEET

DIE SPACER (*Gold*), Pg. 8

10. STABILITY AND REACTIVITY

Reactivity	Hazardous Polymerization will not occur.
Chemical stability	Stable under normal circumstances.
Possibility of hazardous reactions	No data available.
Conditions to avoid	Avoid contact with water, mineral acids, chlorinated solvents
Incompatible materials	Water, acids, alkalis, chlorinated solvents
Hazardous decomposition products	Hydrogen Gas, CuO, ZnO

11. TOXICOLOGICAL INFORMATION

Acute toxicity

Exposure to solvent vapor concentrations from the component solvents in excess of the stated occupational exposure limits may result in adverse health effects such as mucous membrane and respiratory system irritation and adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, nausea, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness.

Repeated or prolonged contact with the preparation may cause removal of natural fat from the skin resulting in dryness, irritation and possible non-allergic contact dermatitis. Solvents may also be absorbed through the skin. Splashes of liquid in the eyes may cause irritation and soreness with possible reversible damage.

Copper dust and mists: Can cause irritation of eyes, mucous membranes, skin and respiratory tract.

Chronic overexposures: Can cause reduction in the number of red blood cells (anemia), skin abnormalities (pigmentation changes) and hair discoloration.

Copper fume: Can cause irritation of eyes, mucous membranes and respiratory tract.

Acute overexposures: Can cause nausea, fever, chills, shortness of breath and malaise (metal fume fever).

Wilson's disease may be affected by copper exposure.

Ingredient	Oral LD50 mg/kg	Skin LD50 mg/kg	Inhalation Vapor LC50, mg/L/4hr	Inhalation Dust/Mist mg/L/4hr	Inhalation Gas LC50, ppm
Butanone - (78-93-3)	2,737.00, Rat-Cat. 5	6,480.00, Rabbit Category:NA	32.00, Mouse Category: NA	No data	No data
Copper - (7440-50-8)	2,500.00, Category 5	>2,000.00, Rat Category 5	No data No Data	5.11, Rat Category:NA	No data available No data available
Zinc powder (stabilized) - (7440-66-6)	No data	No data	No data	No data	No data
Toluene - (108-88-3)	636.00, Rat Cat.: 4	8,400.00, Rabbit, Cat:NA	No data No data	No data No data	No data No data
Methyl methacrylate - (80-62-6)	5,000.00, Rat, Cat. 5	5,000.00, Rabbit, Cat. 5	29.80, Rat Rat, Cat. NA	No data No data	No data No data

SAFETY DATA SHEET

DIE SPACER (*Gold*), Pg. 9

Note: When no route specific LD50 data is available for an acute toxin, the converted acute toxicity point estimate was used in the calculation of the product's ATE (Acute Toxicity Estimate).

Classification	Category	Hazard Description
Acute toxicity (oral)	---	Not Applicable
Acute toxicity (dermal)	---	Not Applicable
Acute toxicity (inhalation)	---	Not Applicable
Skin corrosion/irritation	---	Not Applicable
Serious eye damage/irritation	2	Causes serious eye irritation.
Respiratory sensitization	---	Not Applicable
Skin sensitization	1	May cause an allergic skin reaction.
Germ cell mutagenicity	---	Not Applicable
Carcinogenicity	---	Not Applicable
Reproductive toxicity	2	Suspected of damaging the unborn child.
STOT-single exposure	3	May cause drowsiness or dizziness.
STOT-single exposure	---	Not Applicable
STOT-repeated exposure	---	Not Applicable
Aspiration hazard	---	Not Applicable

12. ECOLOGICAL INFORMATION

Toxicity

Very toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

No additional information provided for this product. See Section 3 for chemical specific data.

Aquatic Ecotoxicity

Data available upon request.

Persistence and degradability

There is no data available on the preparation itself.

Bioaccumulative potential

Not Measured

Mobility in soil

No data available.

Results of PBT and vPvB assessment

This product contains no PBT/vPvB chemicals.

Other adverse effects

No data available.



SAFETY DATA SHEET

DIE SPACER (*Gold*), Pg. 10

13. DISPOSAL CONSIDERATIONS

Observe all federal, state and local regulations when disposing of this substance.

14. TRANSPORT INFORMATION

	DOT (Domestic Surface Transportation)	IMO / IMDG (Ocean Transportation)	ICAO/IATA
UN number	UN1993	UN1993	UN1993
UN proper shipping name	Flammable liquids, n.o.s., (Ethyl Methyl Ketone)		Flammable liquids, n.o.s., (Ethyl Methyl Ketone)
Transport hazard class(es)	DOT Hazard Class: 3 IMDG: 3		
Sub Class: Not Applicable	Air Class: 3		
Packing group	II	II	
Environmental hazards			
IMDG Marine Pollutant:	Yes (Zinc powder (stabilized))		
Special precautions for user	No further information		

15. REGULATORY INFORMATION

Regulatory Overview T

The regulatory data in Section 15 is not intended to be all-inclusive, only selected regulations are represented.

Toxic Substance Control Act (TSCA) All components of this material are either listed or exempt from listing on the TSCA Inventory.

WHMIS Classification B2 D2A

US EPA Tier II Hazards Fire: Yes

Sudden Release of Pressure: No

Reactive: No

Immediate (Acute): Yes

Delayed (Chronic): No

EPCRA 311/312 Chemicals and RQs (lbs):

Butanone (5,000.00)

Copper (5,000.00)

Zinc powder (stabilized) (1,000.00)

EPCRA 302 Extremely Hazardous:

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

EPCRA 313 Toxic Chemicals:



SAFETY DATA SHEET

DIE SPACER (*Gold*), Pg. 11

Copper

Zinc powder (stabilized)

Proposition 65 - Carcinogens (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Developmental Toxins (>0.0%):

Toluene

Proposition 65 - Female Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

Proposition 65 - Male Repro Toxins (>0.0%):

To the best of our knowledge, there are no chemicals at levels which require reporting under this statute.

New Jersey RTK Substances (>1%):

Butanone

Copper

Zinc powder (stabilized)

Pennsylvania RTK Substances (>1%):

Butanone

Copper

Zinc powder (stabilized)

16. OTHER INFORMATION

The full text of the phrases appearing in section 3 is:

H225 Highly flammable liquid and vapor.

H304 May be fatal if swallowed and enters airways.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H336 May cause drowsiness and dizziness.

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H400 Very toxic to aquatic life.

H410 Very toxic to aquatic life with long lasting effects.

This is the first version in the GHS SDS format. Listings of changes from previous versions in other formats are not applicable.

DATE PREPARED: June 2015

SUPERSEDES MSDS: 2006

MANUFACTURER DISCLAIMER:

To the best of our knowledge, the information contained herein is accurate. However, Dental Ventures of America, Inc does not assume any liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.