dental ventures of america, inc.

MATERIAL SAFETY DATA SHEET

Product Identity:

ZAPIT TIP CLEANER

SECTION I. Identification

REVISION: FEBRUARY 2011

Manufacturer

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

Emergency Telephone Number:
Infotrack (800) 535 - 5053
Product Information Number:
(951) 270 - 0606

SECTION II. Composition/Information on Ingredients

Chemical Name/Synonyms:	Methylene Chloride - IND GRADE 100% (by WT) PEL: 500 PPM TLV: 100 PPM
Generic Name:	Chlorinated Hydrocarbon
DOT Hazard Classification:	ORM-A
CAS Number:	75-09-2

SECTION III. Hazardous Ingredients/Identity Information

Methylene Chloride	99%
Synonyms:	Dichloromethane: CH_2Cl_2

The OSHA Acceptable Ceiling is 1000 PPM. The Acceptable Maximum peak above the acceptance ceiling concentration for an 8 hour shift is 2000 PPM for a maximum duration of 5 minutes in any 2 hours. NIOSH recommends a limit of 75 PPM, 8 hour TWA; 500 PPM 15 minute ceiling.

NFPA CODES: Health - 2 Flammability - 1 Reactivity - 0

SECTION IV: First Aid Measures

Inhalation:	Remove from area to fresh air. Contact a poison control center, emergency room or physician right away as further treatment will be necessary.
Eyes/Skin Contact:	Eye: Remove contact lens and pour a gentle stream of warm water through the affected eye for at least 15 minutes. If irritation persists, contact a poison control center, emergency room or physician as further treatment may be necessary. Skin: Run a gentle stream of water over affected area for 15 minutes. A mild soap may be used if available. If any symptoms persist, contact a poison control center, emergency room, or physician as further treatment may be necessary.
Ingestion:	Gently wipe or rinse the inside of the mouth with water. Sips of water may be given if person is fully conscious. Never give anything by mouth to an unconscious or convulsing person. Do Not induce vomiting. Contact a poison control center, emergency room or physician right away as further treatment may be necessary.
Notes to Physician:	Only administer adrenaline after careful consideration following overexposure. Increased sensitivity of the heart to adrenaline may be caused by overexposure to this product.

SECTION V. Fire-Fighting Measures

Flash Point:	None (by DOT test method)
Flammable Limits in Air:	Lower (%) 12% Upper (%) 19%
Recommended Extinguishing Media:	Carbon dioxide. Dry Chemical. Water.
Unusual Fire or Explosion Hazards:	(Conditions to avoid) Not applicable

Special Fire Fighting Procedures:

Emits toxic fumes under fire conditions. When this product is involved in fires, it can decompose to toxic, corrosive hydrogen chloride and possible traces of phosgene. Fire-fighters must wear NIOSH approved pressure demand, self-contained breathing apparatus and full protective clothing when fighting chemical fires. Vapor concentration in a confined or poorly ventilated area can be ignited upon contact with a high energy spark, flame, or high intensity source of heat. This can occur at concentrations ranging between the lower and upper limits (by volume) listed above.

SECTION VI. Accidental Release Measures

Steps to take if Spilled:

Small Spill: Absorb liquid on paper, vermiculite, floor absorbent or other absorbent material and transfer to container for disposal.

Large Spill: Persons not wearing protective equipment should be excluded from area of spill until clean-up has been completed. Only personnel equipped with proper respiratory and eye/skin protection should be permitted in the area.

Stop spill at source - dike area of spill to prevent spreading, pump liquid to salvage tank. Remaining liquid may be taken up on sand, clay, earth, floor absorbent, or other absorbent material and shoveled into containers. After all visible races including ignitable vapors have been removed, thoroughly wet vacuum the area. Do not flush to sewer. If area of spill is porous, remove as much earth and gravel, etc. as necessary and place in closed containers for disposal.

SECTION VII. Handling and Storage

Storage:

Store only in closed, properly labeled containers. Keep container closed when not in use. This material or its vapors when in contact with flames, hot glowing surfaces or electric arcs can decompose to form hydrogen chloride gas and possible traces of phosgene.

Avoid contact with liquid oxygen or other strong oxidants. Caution should be taken not to use in pressurized or totally enclosed system of aluminum construction.

Do not store or stack aluminum in contact with this product to prevent possible solvent decomposition.

Handling:

Procedures must be carefully monitored to avoid spills or leaks. Any spill or leak has the potential to cause underground water contamination which may, if sufficiently severe, render drinking source unfit for human consumption.

Do not use cutting or welding torches on drums that contained this product unless properly purged and cleaned.

SECTION VIII — Exposure Controls/Personal Protection

Exposure Limits: OSHA:	8 hr Time Weighted Average (TWA); 15 minute Short-Term Exposure Limit (STEL) (25 ppm TWA 125 ppm STEL ACGIH: 50 ppm TWA)
Personal Protection	
Respiratory Protection:	Use full face-piece self-contained breathing apparatus (SCBA) or full face-piece supplied-air respirator when concentrations may exceed applicable occupational exposure limits.
Ventilation:	Use local exhaust or general room/dilution ventilation sufficient to maintain employee exposure below permissible exposure limits
Protective Gloves:	Wear resistant gloves such as: polyvinyl alcohol.
Eye Protection:	Chemical splash goggles in compliance with OSHA Regulations are advised. However, OSHA Regulations also permit other type of safety glasses. Consult your safety equipment supplier.
Other Protective Equipment:	Boots, aprons, or chemical suits should be used when necessary to prevent skin contact.

Please refer to the chemical specific OSHA Standard for Methylene Chloride (29 CFR 1910.1052) for further information.

SECTION IX. — Physical and Chemical Properties

Appearance:	Clear/Colorless	Vapor Pressure:	349 mm Hg @ 20 C
Odor:	Ether-like	Evaporation Rate:	0.71 (Ethyl Ether = 1)
Boiling Point:	104 F (38 C)	Freezing/Melting Point:	-142 F (-96.7 C)
Specific Gravity (Water=1):	1.32 @ 25/25 C	Solubility (wt.% water):	2 g/100 g @ 20 C
pH:	Neutral	Bulk Density:	11.15 lbs/gal @ 20 C
Vapor Density (Air - 1):	2.93 @ 20 C	Heat of Solution:	No Applicable
Volume % Volatile:	100%	Physical State:	Liquid

SECTION X. — Stability and Reactivity

Stability:	Stable
Hazardous Polymerization:	Will not occur.
Incompatibility	Conditions/Materials to Avoid: Open flames, hot glowing surfaces or electric arcs. Contact with oxidizing materials, aluminum, potassium, sodium, magnesium, and aluminum spray equipment. Aromatic solvents or 1, 1, 1- trichloroethane should not be mixed with this product in contact with aluminum because of possible de-composition reaction. Methylene Chloride reacts adversely to some forms of plastics, rubber, and coatings.
Hazardous Thermal Decomposition:	Combustion Products: Hydrogen chloride gas. Possible traces of phosgene.

SECTION XI. — Toxicological Information

Acute Inhalation LC50:	Slight to low toxicity. 14,400 ppm (mouse) (7 hours).
Skin Irritation:	Mildly irritating. Eye Irritation: Mildly irritating.
Acute Oral LD50:	Moderately toxicity. 1600 mg/kg. (rat)
Chronic Effects/Carcinogenicity:	This product is listed as a carcinogen or potential carcinogen by NTP, IARC and OSHA. This product is listed under IARC as a 2B. This product is listed under ACGIH as A3 (confirmed animal carcinogen with unknown relevance to humans).
Medical Conditions Aggravated:	None known.

SECTION XI. Toxicological Information (Continued)

Epidemiology: Epidemiology studies have failed to show an increased cancer risk.

Effects of Overexposure: Acute

Inhalation: This product is primarily a central nervous system depressant. Principal symptoms of exposure include headache, dizziness, nausea, tingling or numbness of the extremities, sense of fullness in the head, sense of warmth, stupor or dullness, lethargy, drunkenness, and narcosis. Exposure to very high concentrations may lead to unconsciousness or even death in confined or poorly ventilated areas. fatalities following severe acute exposure to various chlorinated solvents have been attributed to ventricular fibrillation.

Employees working with methylene chloride should be aware of the increased hazard from simultaneous exposure to carbon monoxide. This effect is 'additive' in nature with the risk of exposure being greater for smokers.

Eye/Skin: Liquid splashed in the eyes can result in discomfort, pain and irritation. Prolonged or repeated contact with liquid on the skin can cause irritation and dermatitis. The problem may be accentuated by liquid becoming trapped against the skin by contaminated clothing and shoes. Skin absorption is not expected to be of toxicological significance under normal industrial use.

Ingestion: Methylene chloride has a low acute oral toxicity in laboratory animals. Studies indicate that anesthetic deaths occurred shortly after oral dosing, indicating rapid absorption from the gastrointestinal tract.

Carcinogenicity: Methylene chloride is not believed to pose a carcinogenic risk to man when handled as recommended. Dichloromethane has been shown to be carcinogenic in male and female mice exposed to 2000 or 4000 ppm for two years inducing pulmonary (long) and hepatocellular (liver) tumors. Mammary tumors were also induced in female rats exposed to 1000, 2000, or 4000 ppm but there was no increased incidence of any tumor type in hamsters exposed to concentrations as high as 3500 ppm for two years. Subsequent mechanistic studies have revealed differences in species-specific responses and researchers at the Chemical Industry's Institute of Toxicology (CIIT) has concluded that humans appear to respond to dichloromethane exposure similar to hamsters.

Mutagenesis: Methylene Chloride is a mutagen in bacteria, but it has not been shown to cause mutations in mammalian cells. It has been shown to cause chromosome aberrations in vitro, but not in vivo, and it did not induce micronuciei in vivo.

Reproductive/Developmental: No teratogenic effects have been observed in pregnant rats or mice that inhaled concentrations of 1250 ppm methylene chloride during critical periods of gestation. In a two-generation reproduction study, exposure of rats at concentrations as high as 15,000 ppm of methylene chloride vapor for 6 hours/day, 5 days/week did not affect any of the reproductive parameters examined.

SECTION XII. Ecological Information

96 hr LC50 (fathead minnow):	Slight to very low toxicity. 330 mg/L
96 hr LC50 (rainbow trout):	Moderate toxicity. 10.95 mg/L
96 hr LC50 (bluegill):	Slight to very low toxicity. 220 mg/L

SECTION XIII. Disposal Considerations

Disposal Method: Waste material must be disposed of in accordance with federal, state, provincial and local environmental control regulations. Empty containers should be recycled or disposed of through an approved waste management facility.

SECTION XIV. Transport Information

Proper Shipping Name:	Dichloromethane	Hazard Class:	6.1 (Toxic)
UN Number:	UN1593	Packing Group:	III
USA-RQ, Hazardous Substance and Quantity:	1000 lbs./454 kg (methylene chloride - 75-09-2)		
Marine Pollutant:	No		
Additional Information:	This product is incompatible with aluminum and aluminum alloys; hence, this product should not be packaged or shipped in contact with aluminum. USA Shipments Only - Hazardous Substances are regulated in the USA when shipped above their Reportable Quantity (rQ).		

SECTION XV. Regulatory Information

USA TSCA:	All components of this product are listed on the TSCA Inventory.
EUROPE EINECS:	All components in this product are listed on EINECS. (200-838-9)
CANADA DOMESTIC SUBSTANCES LIST (DSL):	All components of this product are listed on the Canadian DSL or NDSL.
AUSTRALIA AICS:	All components of this product are listed on AICS.
KOREA ECL:	All components in this product are listed on the Korean Existing Chemicals Inventory (KECI).
JAPAN MITI (ENCS):	All components in this product are listed on the Japanese Existing and New Chemical Substances (ENCS) chemical inventory.
PHILIPPINES PICCS:	All components in this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS).
SARA TITLE III, Sections 311/312:	Hazard Class: Acute Health Hazard, Chronic Health Hazard.
SARA (313) Chemicals:	Methylene Chloride This product contains toxic chemical(s) listed below which is (are) subject to the reporting requirement of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.
SARA Extremely Hazardous Substance:	Not Listed.
CERCLA Hazardous Substance:	The following materials are listed as CERCLA Hazardous Substances in Table 302.4 of 40 CFR Part 302: RQ=1000 lbs./454 kg. Methylene Chloride (75-09-2).
CALIFORNIA PROPOSITION 65:	Warning: This product contains a chemical known to the State of California to cause cancer.
CANADA REGULATIONS (WHMIS):	Class D1B - Toxic Materials. Class D2A - Very Toxic Materials.

SECTION XVI. Other

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.