



MATERIAL SAFETY DATA SHEET

FILE NO.: T3V1
MSDS DATE: 11/30/2009
MSDS No.: T3113009

Product: T3

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: T3 Threadlocker
PRODUCT CODES: T3ML10, T3ML50, T3ML250
COMPANY NAME: SmartAdhesives LLC
ADDRESS: San Francisco, CA 94129

EMERGENCY PHONE: Chemtrec: 1-800-424-9300

PRODUCT USE: Anaerobic adhesive and sealant; Industrial use
ISSUE DATE: 11-30-2009

SECTION 2: INFORMATION ON INGREDIENTS

HAZARDOUS INGREDIENT:	C.A.S. No.	% by Wt.
Ethoxylated Bisphenol A Dimethacrylate	41637-38-1	70-80%
2-Hydroxyethyl Methacrylate	868-77-9	15-25%
Saccharin	81-07-2	1-10%
Cumene Hydroperoxide	80-15-9	<1%

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Normal physical form - liquid

IMMEDIATE HEALTH AND ENVIRONMENTAL HAZARDS

Skin and eye irritant. May cause respiratory tract irritation. May cause skin sensitization. Polymerization reaction may be caused by inhibitor depletion or exposure to light.

POTENTIAL HEALTH EFFECTS

EYE CONTACT: Eye irritant.

SKIN CONTACT: Skin irritant. May cause skin sensitization.

INHALATION: May cause respiratory tract irritation. Symptoms may include coughing, mucous production, and shortness of breath.

INGESTION: Not expected to be ingested under normal conditions of use. May be harmful if swallowed.

SIGNS AND SYMPTOMS OF OVEREXPOSURE:

May induce an allergic or sensitization reaction.

Cumene hydroperoxide inhalation has been found to result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema.

CARCINOGENICITY

Ethoxylated Bisphenol A Dimethacrylate
2-Hydroxyethyl Methacrylate
Saccharin
Cumene Hydroperoxide

OSHA: NO
OSHA: NO
OSHA: NO
OSHA: NO

NTP: NO
NTP: NO
NTP: NO
NTP: NO

IARC: NO
IARC: NO
IARC: NO
IARC: NO

SECTION 4: FIRST AID MEASURES

EYES:	Immediately flush eyes with plenty of water for at least 15 minutes. Seek medical advice immediately.
SKIN:	Immediately remove product from skin with dry cloth or towel. Wash skin with soap and plenty of warm water. If symptoms occur, seek medical advice. Wash contaminated clothing prior to reuse.
INGESTION:	Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention immediately. Never give anything by mouth to an unconscious person.
INHALATION:	Move to fresh air. If symptoms persist, seek medical advice.

SECTION 5: FIRE FIGHTING MEASURES

FLAMMABILITY: May burn when exposed to fire conditions.

FLAMMABLE LIMITS UPPER: not determined
(% BY VOLUME) LOWER: not determined

FLASH POINT: 200°F (93°C) (closed cup)
AUTOIGNITION TEMP: not available

NFPA HAZARD CLASSIFICATION

HEALTH: 2 **FLAMMABILITY:** 1 **REACTIVITY:** 1

HMIS HAZARD CLASSIFICATION

HEALTH: 2 **FLAMMABILITY:** 1 **PHYSICAL HAZARD:** 1 **PROTECTION:** none

EXTINGUISHING MEDIA: Use foam, dry chemical powder, water fog or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES:

Wear positive pressure, self-contained breathing apparatus and full protective clothing.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

High temperatures, inhibitor depletion, accidental impurities, or exposure to radiation or oxidizers may cause polymerization reaction, generating heat and/or pressure. Closed containers may rupture or explode during rapid polymerization.

May undergo rapid exothermic reaction polymerization during certain conditions. Closed containers may rupture or explode during polymerization.

HAZARDOUS DECOMPOSITION PRODUCTS:

see Section 10

SECTION 6: ACCIDENTAL RELEASE MEASURES**ACCIDENTAL RELEASE MEASURES:**

No action shall be taken involving any personal risk or without suitable training. Evacuate untrained and unprotected people from release areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Ventilate area. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8). Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

For small spills, absorb with inert material (vermiculite, clay, sand, silica gel, universal binder) and dispose in appropriate waste disposal container. For larger spills, first extinguish all sources of ignition. Material is combustible. Make sure to first stop spill or leak at source before clean-up. Dike if necessary. Absorb with inert material and place in appropriate waste disposal container. Spilled or release material may polymerize and

release heat and/or gases. Dispose of all material in accordance with Federal, State, and local regulations.

SECTION 7: HANDLING AND STORAGE

HANDLING:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face with soap and water before eating, drinking and smoking.

Avoid contact with eyes and skin. Material is a potential skin sensitizer. Avoid prolonged exposure to vapor or mist. Use with adequate ventilation. Do not ingest. Do not mix with oxygen-free gas as it renders inhibitor ineffective and makes product susceptible to polymerization. Keep in the original container or an approved alternative made from a compatible material. Prevent contaminating product with foreign material.

STORAGE:

Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from sources of heat and ignition. Do not store in direct sunlight. Do not store in an oxygen-free environment. Prevent moisture contact and contaminating product with foreign material. Store in accordance with local regulations.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

VENTILATION :

Use local exhaust ventilation, sufficient in pattern and volume, to maintain vapor concentration below established TLV requirements.

RESPIRATORY PROTECTION:

Use NIOSH approved respirator if there is a potential to exceed exposure limits.

EYE PROTECTION:

Avoid contact with eyes. Use safety glasses with side shields or indirect vented goggles.

SKIN PROTECTION:

Avoid contact with skin. Use nitrile, PVA, or butyl rubber gloves.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Facilities storing or utilizing this material should be equipped with eye wash fountains and safety shower.

WORK HYGIENIC PRACTICES:

Remove contaminated clothing and launder before next use. Wash thoroughly after handling.

EXPOSURE GUIDELINES:

	<u>Organization</u>	<u>Type</u>	<u>Limit</u>
Cumene Hydroperoxide	AIHA	TWA	1 ppm
	ACGIH (TLV)	TWA	none
	OSHA (PEL)	TWA	none

AIHA: American Industrial Hygiene Association Workplace Env. Exposure Level (WEEL)

ACGIH: American Conference of Governmental Industrial Hygienists

OSHA: Occupational Safety and Health Administration

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

COLOR & APPEARANCE:

green liquid

ODOR THRESHOLD:

slight

PHYSICAL FORM:

liquid

FLAMMABLE LIMITS

LEL:

not available

UEL:

not available

BOILING POINT:

not available

AUTOIGNITION TEMP:

not available

FLASH POINT:

200°F (93°C)

(Pensky-Martens Closed Cup ASTM D 93)

VAPOR PRESSURE (mmHg):

not available

VAPOR DENSITY (AIR=1):

not available

SPECIFIC GRAVITY (H2O=1):

1.11

EVAPORATION RATE:

not available

SOLUBILITY IN WATER:

insoluble

VISCOSITY:

150 ± 10 cP

VOLATILE ORGANIC COMPOUNDS (VOC)

VOC:

NA

VOC less H2O & Exempt Solvent:

NA

pH AS SUPPLIED: not available

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable under recommended storage conditions. Hazardous polymerization may occur under the conditions listed below, including loss of inhibitor.

MATERIALS AND CONDITIONS TO AVOID (STABILITY):

Product will be unstable at high temperatures, fire conditions, or depletion of inhibitor. Avoid direct sunlight, UV radiation, oxidizing agents, inert gas blanketing, and freezing conditions.

Free radical initiators, inert gases, oxidizing agents, oxygen scavengers, and reducing agents.

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:

Carbon oxides. Nitrogen oxides. Sulfur oxides. May emit other toxic fumes under fire conditions.

HAZARDOUS POLYMERIZATION: Hazardous polymerization may occur in the event of accidental impurities, exposure to radiation or oxidizers, lack of inhibitor, high temperatures, or when exposed to direct sunlight or heat. Uncontrolled polymerization may cause rapid production of heat and increase in pressure that could result in violent rupture of sealed storage containers.

SECTION 11: TOXICOLOGICAL INFORMATION**TOXICOLOGICAL INFORMATION:**

2-Hydroxyethyl Methacrylate

Acute oral LD50: >5,050 mg/kg (rat)

Acute oral LD50: >3,275 mg/kg (mouse)

Saccharin

Acute oral LD50: >17 g/kg (mouse)

IARC 3, possibly carcinogenic to humans

Cumene Hydroperoxide

Acute oral LD50: >382 mg/kg (rat)

Acute dermal LD50: >500 mg/kg (rabbit)

Acute inhalation LC50: >220 ppm (rat)

Studies conducted on laboratory animals found this substance to be tumorigenic by RTECS criteria.

Corrosivity:

Cumene Hydroperoxide has been found to cause injury to the eyes, skin, mucous membranes, and upper respiratory tract.

Reproductive Effects:

2-Hydroxyethyl Methacrylate has been shown to produce fetotoxicity in the embryo or fetus in laboratory animal studies.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Not available.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Disposal of this product, solutions and any by-products should at all times comply with Federal, State and local regulations. Any material should be disposed of in a RCRA approved waste facility or RCRA approved incinerator. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA HAZARD CLASS: none.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (49 CFR)

PROPER SHIPPING NAME: Not a DOT controlled material

INTERNATIONAL AIR TRANSPORTATION (ICAO/IATA)

PROPER SHIPPING NAME: Not subject to IATA regulations

WATER TRANSPORTATION (IMO/IMDG)

PROPER SHIPPING NAME: Not subject to IMDG code

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (Toxic Substance Control Act)

All components are listed or are exempt from listing on the Toxic Substances Control Act Inventory.

311/312 HAZARD CATEGORIES:

Chronic: No Reactivity: Yes Acute: Yes

SECTION 313: (Toxic chemicals subject to reporting requirements of that section and 40 CFR part 372 (EPCRA))

Cumene hydroperoxide	<1% (% by weight)	CAS 80-15-9
Saccharin	<2%	CAS 81-07-2

CERCLA (COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION, AND LIABILITY ACT):

Cumene hydroperoxide	10 lbs. reportable quantity
Saccharin	100 lbs. reportable quantity

STATE REGULATIONS

California Prop. 65: no products were found

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

HMIS Rating

Health	2
Flammability	1
Physical Hazard	1

NFPA Rating

Health	2
Flammability	1
Reactivity	1

PREPARATION INFORMATION:

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