



MATERIAL SAFETY DATA SHEET

FILE NO.: C2V1
MSDS DATE: 11/05/2009
MSDS No.: C2110509

Product: C2

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: C2 Neoprene Contact Adhesive
PRODUCT CODES: C2QT1, C2GL1, C2GL5
COMPANY NAME: SmartAdhesives LLC
ADDRESS: San Francisco, CA 94129

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

PRODUCT USE: Neoprene-based contact adhesive; Industrial use
ISSUE DATE: 11-05-2009

SECTION 2: INFORMATION ON INGREDIENTS

<u>HAZARDOUS INGREDIENT:</u>	<u>C.A.S. No.</u>	<u>% by Wt.</u>
Acetone	67-64-1	17-30%
Hexane	110-54-3	11-18%
Naptha (Petroleum) Hydrotreated, Light	64742-49-0	11-18%
Toluene	108-88-3	11-18%

SECTION 3: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Normal physical form - liquid

IMMEDIATE HEALTH AND ENVIRONMENTAL HAZARDS

Extremely flammable liquid and vapor. May cause flash fire. May cause eye and skin irritation. Vapor overexposure may cause respiratory tract irritation and central nervous system depression. Vapors may travel along the ground to an ignition source and ignite explosively.

POTENTIAL HEALTH EFFECTS

EYE CONTACT: Severe eye irritant. Symptoms may include tearing, distorted vision, redness, swelling, and pain.

SKIN CONTACT: Moderate skin irritant. Prolonged or repeated exposure may dry skin and cause irritation or dermatitis. Symptoms may include swelling, itching, and redness.

INHALATION: Vapor overexposure may cause respiratory tract irritation and central nervous system depression. Symptoms may include coughing, nasal discharge, headache, sore throat pain, and nose pain. May be absorbed following inhalation and cause central nervous system depression. Such symptoms may include dizziness, giddiness, drowsiness, headache, nausea, slow reaction time, slurred speech, and unconsciousness. Excessive exposure may cause narcotic effects such as headache, dizziness, and drowsiness.

INGESTION: Not expected to be ingested under normal conditions of use. If ingested, symptoms of gastrointestinal irritation may include nausea, vomiting, diarrhea, and stomach pain. May be absorbed following ingestion and cause central nervous system depression. Such symptoms may include dizziness, giddiness, drowsiness, headache, nausea, slow reaction time, slurred speech, and unconsciousness.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:

Skin contact may aggravate existing dermatitis. Liquid and vapor exposure may aggravate preexisting eye and respiratory disorders.

Toluene misuse by deliberate inhalation has been associated with liver, kidney, and brain damage in humans. Overexposure to toluene has been found to cause liver, kidney, nasal, and brain damage in laboratory animals. Repeated overexposure to high vapor concentrations of 1,000 ppm or more can cause irreversible nerve damage.

CARCINOGENICITY

OSHA: NO

NTP: NO

IARC: NO

SECTION 4: FIRST AID MEASURES

- EYES:** Immediately flush eyes with plenty of water. Seek medical advice.
- SKIN:** Immediately flush skin with plenty of water. Seek medical advice. Wash contaminated clothing prior to reuse.
- INGESTION:** Do not induce vomiting unless instructed by medical professionals. Drink two glasses of water, unless person is unconscious. Seek medical advice.
- INHALATION:** Move to fresh air. If symptoms persist, seek medical advice.

SECTION 5: FIRE FIGHTING MEASURES

- FLAMMABLE LIMITS UPPER:** 1.0%
(% BY VOLUME) LOWER: 13.0%
- FLASH POINT:** -10°F (-23°C) (closed cup)
AUTOIGNITION TEMP: >=402°C (756°F)

NFPA HAZARD CLASSIFICATION

HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 0 OTHER: none

HMIS HAZARD CLASSIFICATION

HEALTH: 2 FLAMMABILITY: 3 REACTIVITY: 0 PROTECTION: K

- EXTINGUISHING MEDIA:** Use Class B fire extinguishing agents (e.g. foam, carbon dioxide (CO₂), dry chemical)

SPECIAL FIRE FIGHTING PROCEDURES:

Self-contained breathing apparatus and full protective clothing. Water can be used to keep containers cool and prevent explosive rupture of containers. Water may not extinguish the fire.

UNUSUAL FIRE AND EXPLOSION HAZARDS:

Closed containers may build pressure and explode if exposed to heat. Vapors may travel on ground to an ignition source and ignite explosively. Liquid and vapors are extremely flammable and can form explosive mixtures in air.

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. Provide adequate ventilation. 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.

Highly flammable material. Remove all ignition sources such as flames, smoking materials, and electrical spark sources. Use only non-sparking tools. Ventilate the area with fresh air. If large spill or spill in confined space, ventilate with mechanical ventilation to disperse or exhaust vapors. Solvent vapors are heavier than air and can collect in dangerous concentrations in floor drains and other low lying areas. NOTE: motors, static sparks, and appliances can be an ignition source and could cause ignition of vapors in the spill area.

For large spill, use fire-extinguishing foam. An aqueous film forming foam is recommended. Cover spill area, starting from the edge, with inorganic absorbent material (e.g. bentonite, vermiculite) until spill area appears dry. Use non-sparking tools to collect all spill material and place in metal container approved by appropriate authorities. Clean up residue with an appropriate solvent selected by authorized person. Ventilate the area with fresh air. Collect the resulting residue containing the solution. Seal container and dispose of collected material as soon as possible.

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. Open carefully (contents may be under pressure). Avoid static discharge, wear low static or grounded shoes. Vapors may ignite explosively or cause flash fire. Prevent build up of vapors and use only with proper ventilation. Vapors can collect in low lying areas. Keep away from any ignition devices, heat, sparks, flames, and lighters.

Do not get in eyes. Do not breathe vapor or mist. Do not ingest. Use only with adequate ventilation. Do not use when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Put on appropriate personal protective equipment (see section 8).

STORAGE:

Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from acids and oxidizing agents, and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Do not transfer to plastic containers. Do not store near heat or open flames. Store in accordance with local regulations.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS

VENTILATION :

Use mechanical ventilation and/or local exhaust, sufficient in pattern and volume, to meet the TLV requirements and prevent explosive concentrations of vapors.

RESPIRATORY PROTECTION:

Avoid breathing vapors. Atmospheric levels should be maintained below the exposure guidelines. If these levels are exceeded, wear an approved, full face, supplied air respirator or an approved positive pressure, self-contained breathing apparatus.

EYE PROTECTION:

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

SKIN PROTECTION:

Avoid contact with skin. Use gloves made from Butyl Rubber or Polyethylene/Ethylene Vinyl Alcohol.

OTHER PROTECTIVE CLOTHING OR EQUIPMENT:

Eye wash fountain or bottles. Barrier hand cream (solvent insoluble).

WORK HYGIENIC PRACTICES:

Remove contaminated clothing and launder before next use.

EXPOSURE GUIDELINES:

	<u>Organization</u>	<u>Type</u>	<u>Limit</u>
Acetone	ACGIH (TLV)	TWA	500 ppm
	ACGIH (TLV)	STEL	750 ppm
	OSHA (PEL)	TWA	1,000 ppm
Hexane	ACGIH (TLV)	TWA	50 ppm
	OSHA Z1	TWA	500 ppm
Naptha	CMRG	TWA	300 ppm
Toluene	ACGIH (TLV)	TWA	20 ppm
	OSHA (PEL)	TWA	200 ppm
	OSHA (PEL)	CEIL	300 ppm

ACGIH: American Conference of Governmental Industrial Hygienists
 OSHA: Occupational Safety and Health Administration
 CMRG: Chemical Manufacturer's recommended guideline

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

COLOR & APPEARANCE:	Natural (yellow/red), low viscosity liquid	VAPOR PRESSURE (mmHg):	Not available
ODOR THRESHOLD:	Pungent, slightly sweet	VAPOR DENSITY (AIR=1):	>1
PHYSICAL FORM:	Liquid	SPECIFIC GRAVITY (H2O=1):	0.9
FLAMMABLE LIMITS		EVAPORATION RATE:	slower than ether
LEL:	1.0% by volume		
UEL:	13.0% by volume		
BOILING POINT:	>=133°F (56°C)	SOLUBILITY IN WATER:	Negligible
AUTOIGNITION TEMP:	>=402°C (756°F)	VISCOSITY:	250 ± 20 cP
FLASH POINT:	-10°F (-23°C)	VOLATILE ORGANIC COMPOUNDS (VOC)	
(Pensky-Martens Closed Cup ASTM D 93)		VOC:	393 g/l
		VOC less H2O & Exempt Solvent:	519 g/l
pH AS SUPPLIED:	Not available		

SECTION 10: STABILITY AND REACTIVITY

STABILITY: Stable.

MATERIALS AND CONDITIONS TO AVOID (STABILITY):
 Keep away from all sources of ignition and heat. Keep away from strong oxidizing agents (can cause spontaneous combustion).

HAZARDOUS DECOMPOSITION OR BY-PRODUCTS:
 Burning or combustion may produces fumes of carbon dioxide and carbon monoxide.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: NA

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Not determined.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose through a RCRA approved incinerator or RCRA approved waste facility. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

RCRA HAZARD CLASS: D001 (Ignitable)

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (ROAD)

PROPER SHIPPING NAME: Adhesives, 3, UN 1133 PGIII (Consumer commodity for containers of 1 gallon or less)
HAZARD CLASS: 3 (ORM-D for containers of 1 gallon or less)
ID NUMBER: UN1133
PACKING GROUP: III (for containers of 1 gallon or less)

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

311/312 HAZARD CATEGORIES:

Fire: Yes Immediate: Yes Pressure: No Reactivity: No Delayed: No

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

Hexane CAS 110-54-3
Toluene CAS 108-88-3

STATE REGULATIONS

California Prop. 65: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm. (toluene)

SECTION 15 NOTES: Not intended for export. Contact company for more information.

SECTION 16: OTHER INFORMATION

OTHER INFORMATION:

Hazardous Material Information System III (U.S.A.)	Health : 2 Flammability: 3 Reactivity: 0 Protection : K
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PREPARATION INFORMATION:

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