

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name **401-040 CHEMSEAL VINYL (401004)**

Supplier - Manufacturer **Chemcraft International Inc.,**

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For Transport Emergency or After Hours

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Code 401-040

Synonym CHEMSEAL VINYL (401004)

Chemical Name Not applicable.

Chemical Family Synthetic polymer in organic solvent. (Paint.)

Chemical Formula Not applicable.

Material Uses Coatings: Surface coatings and finishes.

Product Identification Number (PIN) 1263 PAINT

Section 2. Hazardous Ingredients

Exposure Limits

Name	CAS #	% by Weight	LC ₅₀ /LD ₅₀	TLV/PEL
Toluene	108-88-3	10-30	ORAL (LD50): Acute: 2600 mg/kg [Rat]. DERMAL (LD50): Acute: 12210 mg/kg [Rabbit].	TWA: 200 (ppm) from OSHA (PEL) [United States] TWA: 50 (ppm) from ACGIH (TLV) [United States] [2000] TWA: 100 STEL: 150 (ppm) from NIOSH TWA: 375 STEL: 560 (mg/m ³) from NIOSH
Xylenes	1330-20-7	5-10	ORAL (LD50): Acute: 4300 mg/kg [Rat].	TWA: 434 STEL: 651 (mg/m ³) from ACGIH (TLV) [United States] [1992] TWA: 100 STEL: 150 (ppm) from ACGIH (TLV) [United States] [1992]
Ethyl alcohol	64-17-5	10-30	ORAL (LD50): Acute: 7060 mg/kg [Rat].	TWA: 1000 (ppm) from OSHA (PEL) [United States] TWA: 1000 (ppm) from ACGIH (TLV) [United States] TWA: 1000 (ppm) from NIOSH
Ethyl Acetate	141-78-6	5-10	ORAL (LD50): Acute: 5600 mg/kg [Rat].	TWA: 400 from OSHA (PEL) [United States] TWA: 400 (ppm) from ACGIH (TLV) [United States] TWA: 400 (ppm) from NIOSH TWA: 1400 (mg/m ³) from NIOSH
Methyl isobutyl ketone	108-10-1	5-10	ORAL (LD50): Acute: 21000 mg/kg [Rat]. 2850 mg/kg [Mouse]. DERMAL (LD50): Acute: 20001 mg/kg [Rabbit].	TWA: 50 STEL: 75 (ppb) from ACGIH (TLV) [United States] [1994] TWA: 205 STEL: 307 (ppm) from ACGIH (TLV) [United States] [1994]
Methyl ethyl ketone	78-93-3	10-30	ORAL (LD50): Acute: 3400 mg/kg	TWA: 200 STEL: 300 CEIL: 300

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Potential additional emission of formaldehyde	50-00-0*	0.1-1	[Rat]. DERMAL (LD50): Acute: 13000 mg/kg [Rabbit]. ORAL (LD50): Acute: 100 mg/kg [Rat]. DERMAL (LD50): Acute: 270 mg/kg [Rabbit].	(ppb) [1993] TWA: 590 STEL: 585 CEIL: 885 (ppm) from ACGIH (TLV) [United States] [1993] STEL: 2 (ppm) from OSHA (PEL) [United States] TWA: 0.75 (ppm) from OSHA (PEL) [United States] [1995]
Isobutyl alcohol	78-83-1	1-5	ORAL (LD50): Acute: 2500 mg/kg [Rat]. 3200 mg/kg [Mouse]. DERMAL (LD50): Acute: 4200 mg/kg [Rabbit].	TWA: 50 (ppb) from ACGIH (TLV) [United States] [1993]
Formaldehyde	50-00-0	0.1-1	ORAL (LD50): Acute: 100 mg/kg [Rat]. DERMAL (LD50): Acute: 270 mg/kg [Rabbit].	STEL: 2 (ppm) from OSHA (PEL) [United States] TWA: 0.75 (ppm) from OSHA (PEL) [United States] [1995]

Trace impurities and additional material names not listed above may appear in other sections of this MSDS. These materials may be listed for toxicological concerns, local compliance, or other reasons.

Section 3. Physical Data

Physical State and Appearance	Liquid.
Color	Not available.
Odor	Not available.
Taste	Not available.
Molecular Weight	Not applicable.
pH (1% soln/water)	Neutral.
Boiling Point	The lowest known value is 77°C (170.6°F) (Acetic acid, ethyl ester). Weighted average: 95.02°C (203°F)
Melting Point	May start to solidify at -83°C (-117.4°F) based on data for: 2-Pentanone, 4-methyl-. Weighted average: -92.41°C (-134.3°F)
Critical Temperature	Not available.
Specific Gravity	Weighted average: 0.87 (Water = 1)
Vapor Pressure	The highest known value is 10.3 kPa (@ 20°C) (2-Butanone). Weighted average: 6.15 kPa (@ 20°C)
Vapor Density	The highest known value is 3.7 (Air = 1) (Benzene, dimethyl-). Weighted average: 2.75 (Air = 1)
Volatility	Not available.
Odor Threshold	The highest known value is 180 ppm (Ethanol) Weighted average: 43.82 ppm
Water/Oil Dist. Coeff.	The product is much more soluble in oil.
Ionicity (in Water)	Not available.
Dispersion Properties	Partially dispersed in methanol, diethyl ether. Is not dispersed in cold water, hot water. See solubility in methanol, diethyl ether, n-octanol, acetone.
Solubility	Easily soluble in methanol, diethyl ether, n-octanol, acetone. Insoluble in cold water, hot water.

Section 4. Fire and Explosion Hazard

The Product is:	Flammable.
Fire Hazards in Presence of Various Substances	Highly flammable in presence of open flames and sparks. Slightly flammable to flammable in presence of heat, of oxidizing materials.
Fire Fighting Media and Instructions	Flammable liquid, insoluble in water. SMALL FIRE: Use DRY chemical powder. LARGE FIRE: Use water spray or fog. Cool containing vessels with water jet in order to prevent pressure build-up, autoignition or explosion.
Special Remarks on Fire Hazards	Vapor may travel considerable distance to source of ignition and flash back. (Benzene, methyl-)
Flash Points	The lowest known value is CLOSED CUP: -6°C (21.2°F). (Tagliabue.). OPEN CUP: -4°C (24.8°F). (2-Butanone)
Flammable Limits	The greatest known range is LOWER: 3.3% UPPER: 19% (Ethanol)
Auto-Ignition Temperature	The lowest known value is 416°C (780.8°F) (1-Propanol, 2-methyl-).

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Products of Combustion	These products are carbon oxides (CO, CO ₂).
Explosion Hazards in Presence of Various Substances	Risks of explosion of the product in presence of mechanical impact: Not available. Highly explosive in presence of open flames and sparks.
Special Remarks on Explosion Hazards	Not available.

Section 5. Reactivity Data

Stability	The product is stable.
Decomposition products	Not available.
Conditions of Instability	Not available.
Incompatibility with various substances	Reactive with oxidizing agents. Slightly reactive to reactive with reducing agents, organic materials, metals, acids, alkalis. Non-reactive with combustible materials, moisture.
Corrosivity	Non-corrosive in presence of glass.
Special Remarks on Reactivity	Not available.
Special Remarks on Corrosivity	Not available.

Section 6. Toxicological Properties

Routes of Entry	Absorbed through skin. Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 2500 mg/kg [Rat]. (1-Propanol, 2-methyl-). Acute dermal toxicity (LD50): 4200 mg/kg [Rabbit]. (1-Propanol, 2-methyl-).
Effects of Acute Exposure	Very hazardous in case of skin contact (irritant), of eye contact (irritant). Hazardous in case of skin contact (permeator), of inhalation. Slightly hazardous in case of ingestion. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified 4 (No evidence.) by NTP [Benzene, methyl-]. Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC, D (Not classifiable for human or animal.) by EPA [Benzene, methyl-]. Classified A4 (Not classifiable for human or animal.) by ACGIH, 3 (Not classifiable for human.) by IARC, D (Not classifiable for human or animal.) by EPA [Benzene, dimethyl-]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC [Acetic Acid, Ethyl Ester]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, 4 (No evidence.) by NTP, None. by OSHA [2-Butanone]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, 4 (No evidence.) by NTP, None. by OSHA [2-Propanol, 2-methyl-]. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC, 2 (Some evidence.) by NTP [Potential additional emission of formaldehyde]. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC, 2 (Some evidence.) by NTP [Formaldehyde]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Ethanol]. Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Potential additional emission of formaldehyde]. Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Formaldehyde]. The substance is toxic to blood, kidneys, lungs, the nervous system, the reproductive system, liver, upper respiratory tract, skin, eyes, central nervous system (CNS). Repeated or prolonged exposure to the substance can produce target organs damage.
Special Remarks on Toxicity to Animals	Formaldehyde has caused cancer in test animals at high concentrations (5-15 ppm). (Potential additional emission of formaldehyde)
Special Remarks on Chronic Effects on Humans	Inhalation of vapors may cause dizziness, an irregular heartbeat, narcosis, nausea or asphyxiation. (Benzene, methyl-)
Special Remarks on Other Toxic Effects on Humans	Exposure can cause lung irritation, chest pain and oedema which may be fatal. (Benzene, methyl-)

Exposure Limits	Benzene, methyl-
	TWA: 200 (ppm) from OSHA (PEL) [United States] TWA: 50 (ppm) from ACGIH (TLV) [United States] [2000] TWA: 100 STEL: 150 (ppm) from NIOSH TWA: 375 STEL: 560 (mg/m ³) from NIOSH
	Benzene, dimethyl-
	TWA: 434 STEL: 651 (mg/m ³) from ACGIH (TLV) [United States] [1992] TWA: 100 STEL: 150 (ppm) from ACGIH (TLV) [United States] [1992]
	Ethanol
	TWA: 1000 (ppm) from OSHA (PEL) [United States] TWA: 1000 (ppm) from ACGIH (TLV) [United States] TWA: 1000 (ppm) from NIOSH
	Acetic acid, ethyl ester
	TWA: 400 from OSHA (PEL) [United States] TWA: 400 (ppm) from ACGIH (TLV) [United States] TWA: 400 (ppm) from NIOSH TWA: 1400 (mg/m ³) from NIOSH
	2-Pentanone, 4-methyl-
	TWA: 50 STEL: 75 (ppb) from ACGIH (TLV) [United States] [1994] TWA: 205 STEL: 307 (ppm) from ACGIH (TLV) [United States] [1994]
	2-Butanone
	TWA: 200 STEL: 300 CEIL: 300 (ppb) [1993] TWA: 590 STEL: 585 CEIL: 885 (ppm) from ACGIH (TLV) [United States] [1993]
	2-Propanol, 2-methyl-
	TWA: 100 STEL: 150 (ppb)
	Potential additional emission of formaldehyde
	STEL: 2 (ppm) from OSHA (PEL) [United States] TWA: 0.75 (ppm) from OSHA (PEL) [United States] [1995]
	1-Propanol, 2-methyl-
	TWA: 50 (ppb) from ACGIH (TLV) [United States] [1993]
	Formaldehyde
	STEL: 2 (ppm) from OSHA (PEL) [United States] TWA: 0.75 (ppm) from OSHA (PEL) [United States] [1995]

Consult local authorities for acceptable exposure limits.

Section 7. Preventive Measures

Personal Protection	Splash goggles. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.
Small Spill	Absorb with an inert material and put the spilled material in an appropriate waste disposal.
Large Spill	Toxic flammable liquid, insoluble or very slightly soluble in water. Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.
Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Precautions	Keep locked up. Keep away from heat. Keep away from sources of ignition. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/vapor/spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents.
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame).
TDG Classification	Class 3: Flammable liquid.
PIN	1263 PAINT PG: II
Special Provisions for Transport	Not available.

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Federal and State Regulations

California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer, birth defects or other reproductive harm, which would require a warning under the statute: Benzene, methyl-; Xylenes - mixed isomers; Formaldehyde
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause birth defects which would require a warning under the statute: Benzene, methyl-
 California prop. 65: This product contains the following ingredients for which the State of California has found to cause cancer which would require a warning under the statute: Formaldehyde
 New York release reporting list: Benzene, methyl-; Acetic acid, ethyl ester
 Rhode Island RTK hazardous substances: Acetic acid, ethyl ester
 Pennsylvania RTK: Ethanol; Acetic acid, ethyl ester
 Florida: Benzene, methyl-; Acetic acid, ethyl ester
 Minnesota: Benzene, methyl-; Ethanol; Acetic acid, ethyl ester
 Michigan critical material: Benzene, methyl-
 Massachusetts RTK: Benzene, methyl-; Ethanol; Acetic acid, ethyl ester
 New Jersey: Benzene, methyl-; Ethanol; Acetic acid, ethyl ester
 TSCA 8(b) inventory: Benzene, methyl-; Xylenes - mixed isomers; Ethanol; Acetic acid, ethyl ester; Formaldehyde
 TSCA 5(e) substance consent order: Acetic acid, ethyl ester
 TSCA 8(d) H and S data reporting: Benzene, methyl-: October 4, 1992
 TSCA 12(b) annual export notification: Acetic acid, ethyl ester
 SARA 302/304/311/312 extremely hazardous substances: Formaldehyde
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Xylenes - mixed isomers: fire, immediate health hazard; Ethyl Acetate: fire, immediate health hazard; Methyl ethyl ketone: fire, immediate health hazard; Isobutyl alcohol: fire, delayed health hazard
 SARA 313 toxic chemical notification and release reporting: Benzene, methyl- 15%; Xylenes - mixed isomers 8.17%; Methyl isobutyl ketone 8%; Methyl ethyl ketone 25.752%; 2-Propanol, 2-methyl- 0.174%; Formaldehyde 0.12%
 CERCLA: Hazardous substances.: Benzene, methyl-: 1000 lbs. (453.6 kg); Xylenes - mixed isomers; Ethyl Acetate; Methyl isobutyl ketone; Methyl ethyl ketone; Isobutyl alcohol;
 OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Regulations**Other Classifications**

WHMIS (Canada)
CLASS B-2: Flammable liquid with a flash point lower than 37.8°C (100°F).
CLASS D-2A: Material causing other toxic effects (VERY TOXIC).
CLASS D-2B: Material causing other toxic effects (TOXIC).

HCS (U.S.A.)
 Class: Contains material which may cause cancer.
 Class: Flammable liquid having a flash point lower than 37.8°C (100°F).
 Class: Irritating substance.
 Class: Target organ effects.
 Class: Reproductive toxins.

Hazardous Material Information System (U.S.A.)	Health Hazard	* 2
	Fire Hazard	3
	Reactivity	0
	Personal Protection	h
National Fire Protection Association (U.S.A.)	Health	2
	Fire Hazard	3
	Reactivity	0
	Specific Hazard	

Section 8. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention immediately.
Skin Contact	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
Hazardous Skin Contact	Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

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Hazardous Inhalation	Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. WARNING: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek medical attention.
Ingestion	Do not induce vomiting. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Hazardous Ingestion	Not available.

Section 9. Preparation Information

References	-Manufacturers Material Safety Data Sheets.
Other Special Considerations	Not available.
Related Information	This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR.
Preparation Information	Validated by C. Kelly on 8/31/2001. Verified by C. Kelly. Printed 9/18/2002.
Information Contact	Prepared by the Health, Safety and Environment Department, Chemcraft International Inc., P.O. Box 458, 155, Rose Glen Road North, Port Hope, ON. Canada. Phone: 905 885-6388 Fax: 905 885-5097

Notice to Reader

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