

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name **401-047 CHEMSEAL (401-023)**

Supplier - Manufacturer **Chemcraft International Inc.,**
155 Rose Glen Road North
P.O. Box 458
Port Hope, ON.
Canada L1A 3Z3

Telephone (905) 885-6388 Fax (905) 885-5097

In case of Emergency (905) 885-6388, (800) 263-7951

For Transport Emergency or After Hours

CANUTEC (613) 996-6666

Code 401-047

Synonym CHEMSEAL (401-023)

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

Name	CAS #	% by Weight	<u>Exposure Limits</u>	
			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].	ACGIH (Canada, 1993). TWA: 50 ppm TWA: 188 mg/m ³
Ethyl alcohol	64-17-5	1-5	ORAL (LD50): Acute: 7060 mg/kg [Rat].	OSHA (Canada). TWA: 1000 ppm ACGIH (Canada). TWA: 1000 ppm
Isopropanol	67-63-0	5-10	ORAL (LD50): Acute: 5045 mg/kg [Rat]. 4797 mg/kg [Dog]. 3600 mg/kg [Mouse]. DERMAL (LD50): Acute: 12800 mg/kg [Rabbit].	ACGIH (Canada, 1994). TWA: 400 ppm STEL: 500 ppm TWA: 983 mg/m ³ STEL: 1230 mg/m ³
Propylene glycol monomethyl ether acetate	108-65-6	10-30	ORAL (LD50): Acute: 8532 mg/kg [Rat].	Not available.
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].	ACGIH (Canada, 1994). TWA: 50 ppm STEL: 75 ppm TWA: 205 mg/m ³ STEL: 307 mg/m ³
Acetone	67-64-1	5-10	ORAL (LD50): Acute: 5800 mg/kg [Rat]. DERMAL (LD50): Acute: 20000 mg/kg [Rabbit].	ACGIH (Canada, 1997). TWA: 500 ppm STEL: 750 ppm TWA: 1188 mg/m ³ STEL: 1782 mg/m ³
Ethylbenzene	100-41-4	1-5	ORAL (LD50): Acute: 3500 mg/kg [Rat]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit].	ACGIH (Canada). TWA: 100 ppm STEL: 125 ppm
m-Methyltoluene	108-38-3	1-5	ORAL (LD50): Acute: 6750 mg/kg [Rat]. DERMAL (LD50): Acute: 12400 mg/kg [Rabbit].	Not available.
o-Methyltoluene	95-47-6	1-5	ORAL (LD50): Acute: 3600 mg/kg [Rat].	Not available.
p-Methyltoluene	106-42-3	1-5	ORAL (LD50): Acute: 4100 mg/kg	Not available.

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Potential additional emission of formaldehyde	50-00-0*	0.1-1	[Rat.] ORAL (LD50): Acute: 100 mg/kg [Rat]. DERMAL (LD50): Acute: 270 mg/kg [Rabbit].	OSHA (Canada). STEL: 2 ppm TWA: 0.75 ppm Not available.
1-Butanol	71-36-3	5-10	ORAL (LD50): Acute: 2510 mg/kg [Rat]. 790 mg/kg [Rat]. DERMAL (LD50): Acute: 5300 mg/kg [Rabbit]. 3400 mg/kg [Rabbit].	Not available.
Formaldehyde	50-00-0	0.1-1	ORAL (LD50): Acute: 100 mg/kg [Rat]. DERMAL (LD50): Acute: 270 mg/kg [Rabbit].	OSHA (Canada). STEL: 2 ppm TWA: 0.75 ppm

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 56.2°C (133.2°F) (2-Propanone). Weighted average: 108.34°C (227°F)
Melting Point	May start to solidify at 13.3°C (55.9°F) based on data for: Benzene, 1,4-dimethyl-. Weighted average: -87.44°C (-125.4°F)
Critical Temperature	Not available.
Specific Gravity	Weighted average: 0.9 (Water = 1)
Vapor Pressure	The highest known value is 24.8 kPa (186.2 mmHg) (at 20°C) (2-Propanone). Weighted average: 5.17 kPa (38.78 mmHg) (at 20°C)
Vapor Density	The highest known value is 4.6 (Air = 1) (2-Propanol, 1-methoxy, acetate). Weighted average: 3.08 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.1 ppm (2-Pentanone, 4-methyl-) Weighted average: 29.32 ppm
Water/Oil Dist. Coeff.	The product is much more soluble in octanol.
Ionicity (in Water)	Not available.
Dispersion Properties	Very slightly dispersed in methanol, diethyl ether. Is not dispersed in cold water, hot water, n-octanol. See solubility in methanol, diethyl ether, n-octanol.
Solubility	Easily soluble in methanol, diethyl ether. Soluble in n-octanol. 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, sparks and static discharge. Flammable in presence of heat.
Fire Fighting Media and Instructions	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: -18°C (-0.4°F). (T.C.C.). (2-Propanone)
Flammable Limits	The greatest known range is LOWER: 3.3% UPPER: 19% (Ethanol)
Auto-Ignition Temperature	The lowest known value is 343°C (649.4°F) (1-Butanol).
Products of Combustion	These products are carbon oxides (CO, CO2).

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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, sparks and static discharge.
Special Remarks on Explosion Hazards	Not available.

Section 5. Reactivity Data

Stability	The product is stable.
Decomposition products	Not available.
Conditions of Instability	Avoid contact with oxidizing agents. (Benzene, (1-methylethenyl)-)
Incompatibility with various substances	Reactive with oxidizing agents. Slightly reactive to reactive with reducing agents, acids, alkalis.
Corrosivity	Not available.
Special Remarks on Reactivity	Incompatible with chlorinated compounds. (2-Propanol)
Special Remarks on Corrosivity	Not available.

Section 6. Toxicological Properties

Routes of Entry	Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD50): 790 mg/kg [Rat]. (1-Butanol). Acute dermal toxicity (LD50): 3400 mg/kg [Rabbit]. (1-Butanol). Acute toxicity of the vapor (LC50): 4785 ppm 4 hour(s) [Rat.]. (Benzene, 1,4-dimethyl-).
Effects of Acute Exposure	Very hazardous in case of skin contact (irritant), of eye contact (irritant). Hazardous in case of skin contact (permeator), of ingestion, of inhalation. 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 A4 (Not classifiable for human or animal.) by ACGIH [Ethanol]. 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, None. by OSHA [2-Propanol]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, None. by OSHA [2-Propanone]. Classified D (Not classifiable for human or animal.) by EPA [2-Propanone]. Classified A4 (Not classifiable for human or animal.) by ACGIH [Benzene, 1,3-dimethyl-]. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC [Formaldehyde]. Classified A5 (Not suspected for human.) by ACGIH, 4 (Probably not for human.) by IARC, None. by OSHA [1-Butanol]. Classified A2 (Suspected for human.) by ACGIH, 2A (Probable for human.) by IARC [Formaldehyde]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Classified None. for human [2-Propanone]. DEVELOPMENTAL TOXICITY: Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [Ethanol]. Classified Reproductive system/toxin/female, Reproductive system/toxin/male [PROVEN] [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. Repeated or prolonged exposure to the substance can produce target organ damage.
Special Remarks on Toxicity to Animals	Formaldehyde has caused cancer in test animals at high concentrations (5-15 ppm). (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	Not available.

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 occupational exposure limits. 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	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.
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	3
PIN	1263 PAINT PG: II
Special Provisions for Transport	
Federal and State Regulations	<p>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-; Benzene, dimethyl-; Formaldehyde; Isobutyl alcohol; Formaldehyde</p> <p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (female) which would require a warning under the statute: Isobutyl alcohol</p> <p>California prop. 65: This product contains the following ingredients for which the State of California has found to cause reproductive harm (male) which would require a warning under the statute: Isobutyl alcohol</p> <p>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-</p> <p>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; Isobutyl alcohol; Formaldehyde</p> <p>Illinois toxic substances disclosure to employee act: Benzene, ethyl-</p> <p>New York release reporting list: Acetic Acid, Ethyl Ester; Benzene, 1,3-dimethyl-</p> <p>New York acutely hazardous substances: Benzene, ethyl-</p> <p>Rhode Island RTK hazardous substances: Acetic Acid, Ethyl Ester; Benzene, ethyl-</p> <p>Pennsylvania RTK: Ethanol; Acetic Acid, Ethyl Ester; Isopropyl alcohol</p> <p>Florida: Acetic Acid, Ethyl Ester; Benzene, ethyl-; Benzene, 1,3-dimethyl-</p> <p>Minnesota: Ethanol; Acetic Acid, Ethyl Ester; Benzene, ethyl-</p> <p>Massachusetts RTK: Ethanol; Acetic Acid, Ethyl Ester; Isopropyl alcohol; Benzene, ethyl-; Benzene, 1,3-dimethyl-</p> <p>New Jersey: Ethanol; Acetic Acid, Ethyl Ester; Isopropyl alcohol; Benzene, ethyl-</p> <p>TSCA 8(b) inventory: Benzene, methyl-; Ethanol; Acetic Acid, Ethyl Ester; Isopropyl alcohol; Benzene, dimethyl-; N-Butyl Alcohol; Formaldehyde</p> <p>TSCA 5(e) substance consent order: Acetic Acid, Ethyl Ester</p> <p>TSCA 8(d) H and S data reporting: Benzene, ethyl-</p> <p>TSCA 12(b) annual export notification: Acetic Acid, Ethyl Ester</p> <p>SARA 302/304/311/312 extremely hazardous substances: Isopropyl alcohol; N-Butyl Alcohol; Formaldehyde</p> <p>SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Acetic Acid, Ethyl Ester: Fire Hazard, Immediate (Acute) Health Hazard; Benzene, dimethyl-: Fire Hazard, Immediate (Acute) Health Hazard; Isobutyl alcohol: Fire Hazard, Immediate (Acute) Health Hazard</p> <p>SARA 313 toxic chemical notification and release reporting: Benzene, methyl- 19.593%; Isopropyl alcohol 5.731%; 2-Pentanone, 4-methyl- 9.55%; 2-Propanone 9.26%; Benzene, dimethyl- 6.24%; N-Butyl Alcohol 5.694%; Formaldehyde 0.156%</p> <p>CERCLA: Hazardous substances.: Benzene, methyl-; Acetic Acid, Ethyl Ester; 2-Pentanone, 4-methyl-;</p>

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	2-Propanone; Benzene, dimethyl-; N-Butyl Alcohol; Isobutyl alcohol;	
Other Regulations	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).	
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: Flammable liquid having a flash point lower than 37.8°C (100°F). Class: Irritating substance. Class: Target organ effects.
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.
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.M. Kelly on 8/29/2002. Verified by C.M. 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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