

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name **546-5182CHEMSEAL UF (E05-0056)**

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 546-5182

Synonym CHEMSEAL UF (E05-0056)

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	15 - 30	ORAL (LD50): Acute: 2600 mg/kg [Rat]. DERMAL (LD50): Acute: 12210 mg/kg [Rabbit].	ACGIH (United States, 1993). TWA: 50 ppm TWA: 188 mg/m ³
Propylene glycol monomethyl ether acetate	108-65-6	5 - 15	ORAL (LD50): Acute: 8532 mg/kg [Rat].	
Methyl isobutyl ketone	108-10-1	5 - 15	ORAL (LD50): Acute: 21000 mg/kg [Rat]. 2850 mg/kg [Mouse]. DERMAL (LD50): Acute: 20001 mg/kg [Rabbit].	ACGIH (United States, 1994). TWA: 50 ppm STEL: 75 ppm TWA: 205 mg/m ³ STEL: 307 mg/m ³
Acetone	67-64-1	5 - 15	ORAL (LD50): Acute: 5800 mg/kg [Rat]. 3000 mg/kg [Mouse]. DERMAL (LD50): Acute: 20000 mg/kg [Rabbit].	ACGIH (United States, 1997). TWA: 500 ppm STEL: 750 ppm TWA: 1188 mg/m ³ STEL: 1782 mg/m ³
Isopropanol	67-63-0	5 - 15	ORAL (LD50): Acute: 5045 mg/kg [Rat]. 4797 mg/kg [Dog]. 3600 mg/kg [Mouse]. DERMAL (LD50): Acute: 12800 mg/kg [Rabbit].	ACGIH (United States, 1994). TWA: 400 ppm STEL: 500 ppm TWA: 983 mg/m ³ STEL: 1230 mg/m ³
Ethyl alcohol	64-17-5	5 - 15	ORAL (LD50): Acute: 7060 mg/kg [Rat]. VAPOR (LC50): Acute: 8000 mg/l 4 hour/hours [Rat].	OSHA (United States). TWA: 1000 ppm ACGIH (United States). TWA: 1000 ppm NIOSH

Continued on Next Page

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: 1000 ppm ACGIH (United States, 1993). TWA: 50 ppm
Silica, amorphous	7631-86-9	1 - 5	ORAL (LD50): Acute: 3160 mg/kg [Rat].	OSHA (United States). TWA: 6 mg/m ³
Potential additional emission of formaldehyde	50-00-0*	0.1 - 1	ORAL (LD50): Acute: 100 mg/kg [Rat]. DERMAL (LD50): Acute: 270 mg/kg [Rabbit].	OSHA (United States). STEL: 2 ppm TWA: 0.75 ppm
2-Methoxy-1-propanol acetate	70657-70-4	0.1 - 1	Not available.	OSHA (United States). STEL: 2 ppm 8 hour/hours.
Formaldehyde	50-00-0	0.1 - 1	ORAL (LD50): Acute: 100 mg/kg [Rat]. DERMAL (LD50): Acute: 270 mg/kg [Rabbit]. VAPOR (LC50): Acute: 250 mg/l 4 hour/hours [Rat]. 590 mg/l 4 hour/hours [Rat].	OSHA PEL (United States, 1995). TWA: 0.75 ppm OSHA action level (United States). TWA: 0.5 ppm 8 hour/hours.

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: 102.99°C (217.4°F)
Melting Point	May start to solidify at -83°C (-117.4°F) based on data for: 2-Pentanone, 4-methyl-. Weighted average: -94.9°C (-138.8°F)
Critical Temperature	Not available.
Specific Gravity	0.9292 (Water = 1)
Vapor Pressure	The highest known value is 24.1 kPa (181 mm Hg) (at 20°C) (2-Propanone). Weighted average: 5.47 kPa (41.03 mm Hg) (at 20°C)
Vapor Density	The highest known value is 4.6 (Air = 1) (2-Propanol, 1-methoxy, acetate). Weighted average: 2.96 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.1 ppm (2-Pentanone, 4-methyl-) Weighted average: 44.16 ppm
Water/Oil Dist. Coeff.	The product is much more soluble in octanol.
Ionicity (in Water)	Not available.
Dispersion Properties	Partially dispersible in methanol, diethyl ether. Not dispersible in cold water, hot water. 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, acetone.

Section 4. Fire and Explosion Hazard

The Product is:	Flammable.
Fire Hazards in Presence of Various Substances	Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge and heat. Slightly flammable in the presence of the following materials or conditions: oxidizing materials. Non-flammable in the presence of the following materials or conditions: reducing materials, combustible materials and moisture.
Fire Fighting Media and Instructions	SMALL FIRE: Use dry chemical powder. LARGE FIRE: Use water spray or fog. Cool containers with water jet in order to prevent pressure build-up, auto-ignition 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 416°C (780.8°F) (1-Propanol, 2-methyl-).
Products of Combustion	These products are carbon oxides (CO, CO ₂). Some metallic oxides.
Explosion Hazards in Presence of Various Substances	Highly explosive in the presence of the following materials or conditions: 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 or incompatible with the following materials: oxidizing materials, acids and alkalis. Slightly reactive or incompatible with the following materials: reducing materials, organic materials and metals. Non-reactive or compatible with the following materials: combustible materials and moisture.
Corrosivity	Not available.
Special Remarks on Reactivity	Incompatible with hydrogen fluoride. (Silica)
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): 2500 mg/kg [Rat.]. (1-Propanol, 2-methyl-). Acute dermal toxicity (LD50): 4200 mg/kg [Rabbit.]. (1-Propanol, 2-methyl-). Acute toxicity of the gas (LC50): 44000 mg/m ³ 4 hour/hours [Mouse]. (2-Propanone). Acute toxicity of the vapor (LC50): 8000 mg/l 4 hour/hours [Rat.]. (Ethanol).
Effects of Acute Exposure	Very hazardous in case of ingestion, of inhalation. Hazardous in case of skin contact (permeator)
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [2-Propanone]. Classified D (Not classifiable for humans or animals.) by EPA [2-Propanone]. Classified A4 (Not classifiable for humans or animals.) by ACGIH [Ethanol]. Classified 1 (Proven for humans.) by IARC [Potential additional emission of formaldehyde]. Classified A2 (Suspected for humans.) by ACGIH, 2 (Reasonably anticipated to be human carcinogens.) by NTP [Potential additional emission of formaldehyde]. Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC [Acetic Acid, Ethyl Ester]. Classified 1 (Proven for humans.) by IARC [Formaldehyde]. Classified A2 (Suspected for humans.) by ACGIH, 2 (Reasonably anticipated to be human carcinogens.) by NTP [Formaldehyde].

Continued on Next Page

	MUTAGENIC EFFECTS: Not available.
	TERATOGENIC EFFECTS: Classified None. for humans [2-Propanone].
	DEVELOPMENTAL TOXICITY: PROVEN [Ethanol]
	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 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	Not available.

Section 7. Preventive Measures

Personal Protection	Safety glasses. Lab coat. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Impervious gloves.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Suggested protective clothing might not be adequate. 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 close to the workstation location.
Small Spill	Absorb with an inert material and transfer the spilled material and absorbent to an appropriate waste disposal container.
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 allow water to enter container. Do not touch spilled material. Prevent entry into sewers, basements or confined areas. Dike if necessary. 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.
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>WARNING: This product contains chemical/chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.: Benzene; Benzene, methyl-; Formaldehyde</p> <p>WARNING: This product contains chemical/chemicals known to the state of California to cause reproductive harm (male).: Benzene</p> <p>WARNING: This product contains chemical/chemicals known to the state of California to cause birth defects or other reproductive harm.: Benzene; Benzene, methyl-</p> <p>WARNING: This product contains chemical/chemicals known to the state of California to cause cancer.: Benzene; Formaldehyde</p> <p>New York release reporting list: Acetic Acid, Ethyl Ester</p> <p>Rhode Island RTK hazardous substances: Acetic Acid, Ethyl Ester</p> <p>Pennsylvania RTK: Benzene, methyl-; Ethanol; Acetic Acid, Ethyl Ester; Isopropyl alcohol;</p> <p>Acetic acid, 2-methylpropyl ester; 1,2-Propanediol</p> <p>Florida: Acetic Acid, Ethyl Ester</p> <p>Minnesota: Ethanol; Acetic Acid, Ethyl Ester</p>

Continued on Next Page

Massachusetts RTK: Ethanol; Acetic Acid, Ethyl Ester; Isopropyl alcohol; Acetic acid, 2-methylpropyl ester
 New Jersey: Benzene, methyl-; Ethanol; Acetic Acid, Ethyl Ester; Isopropyl alcohol; Acetic acid, 2-methylpropyl ester
 TSCA 8(b) inventory: Benzene, methyl-; Ethanol; Acetic Acid, Ethyl Ester; Isopropyl alcohol; Acetic acid, 2-methylpropyl ester
 TSCA 5(e) substance consent order: Acetic Acid, Ethyl Ester
 TSCA 12(b) annual export notification: Acetic Acid, Ethyl Ester
 SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Benzene, methyl-: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; 2-Propanol: Fire hazard, Delayed (chronic) health hazard; 1-Propanol, 2-methyl-: Fire hazard, Delayed (chronic) health hazard
 CERCLA: Hazardous substances.: Benzene, methyl-: 1000 lbs. (453.6 kg); Acetic Acid, Ethyl Ester; 2-Pentanone, 4-methyl-; Acetone; Acetic acid, 2-methylpropyl ester; 1-Propanol, 2-methyl-;

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

OSHA: Standard for Occupational Exposure to Formaldehyde 29CFR 1910.1048 must be consulted before initial use of product.

Other Classifications

WHMIS (Canada)	Class B-2: Flammable liquid Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic).
HCS (U.S.A.)	Contains material which may cause cancer Highly toxic Target organ effects

Hazardous Material Information System (U.S.A.)	Health Hazard	* 1
	Fire Hazard	3
	Reactivity	0
	Personal Protection	G

National Fire Protection Association (U.S.A.)	Health	1
	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.

Skin Contact Wash with soap and water. Get medical attention if irritation develops.

Hazardous Skin Contact Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial cream. Seek medical attention.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.

Hazardous Inhalation Move 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. Seek medical attention.

Ingestion Do not induce vomiting. Examine the lips and mouth to ascertain if the tissues are damaged, a possible indication that 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 K. William on 11/9/2006.

Verified by K. William.

Printed 11/10/2007.

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

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.