

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name **520-198 PERMAGRAIN**

Supplier - Manufacturer **Chemcraft® International Inc.**
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CANUTEC (613) 996-6666

Code 520-198
Synonym PERMAGRAIN
Chemical Name Not applicable.
Chemical Family Synthetic polymer in organic solvent. (Polymer.)
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	50 - 70	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
Light aromatic naphtha	64742-95-6	5 - 15	ORAL (LD50): Acute: 6960 mg/kg [Rat].	TWA: 25 ppm ACGIH (United States). TWA: 123 mg/m ³
Xylenes	1330-20-7	5 - 15	ORAL (LD50): Acute: 4300 mg/kg [Rat].	ACGIH (United States, 1992). TWA: 100 ppm STEL: 150 ppm TWA: 434 mg/m ³ STEL: 651 mg/m ³
Methanol	67-56-1	1 - 5	ORAL (LD50): Acute: 6200 mg/kg [Rat]. DERMAL (LD50): Acute: 5600 mg/kg [Rat]. DERMAL (LD50): Acute: 15800 mg/kg [Rabbit].	OSHA (United States). TWA: 200 ppm ACGIH (United States, 2000). TWA: 200 ppm STEL: 250 ppm NIOSH (1997). TWA: 200 ppm STEL: 250 ppm TWA: 260 mg/m ³ STEL: 325 mg/m ³
Ferric oxide	1309-37-1	1 - 5	Not available.	
Ethylbenzene	100-41-4	1 - 5	ORAL (LD50): Acute: 3500 mg/kg [Rat]. DERMAL (LD50): Acute: 5000 mg/kg [Rabbit].	ACGIH (United States). TWA: 100 ppm STEL: 125 ppm NIOSH

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Mineral spirits	8052-41-3	1 - 5	ORAL (LD50): Acute: 5000 mg/kg [Rat]. DERMAL (LD50): Acute: 3160 mg/kg [Rabbit].	STEL: 125 ppm TWA: 100 ppm CEIL: 125 ppm ACGIH (United States). TWA: 525 mg/m ³ CEIL: 720 mg/m ³
Silica quartz	14808-60-7	0.1 - 1	Not available.	ACGIH (United States). Notes: Respirable TWA: 0.1 mg/m ³

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.
Molecular Weight	Not applicable.
pH (1% soln/water)	Neutral.
Boiling Point	The lowest known value is 64.5°C (148.1°F) (Methanol). Weighted average: 117.06°C (242.7°F)
Melting Point	May start to solidify at -53°C (-63.4°F) based on data for: Solvent naphtha (petroleum), light arom.. Weighted average: -89.52°C (-129.1°F)
Critical Temperature	Not available.
Specific Gravity	0.9464 (Water = 1)
Vapor Pressure	The highest known value is 12.2 kPa (91.8 mm Hg) (at 20°C) (Methanol). Weighted average: 3.11 kPa (23.33 mm Hg) (at 20°C)
Vapor Density	The highest known value is 4.8 (Air = 1) (Stoddard solvent). Weighted average: 3.24 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.3 ppm (Benzene, dimethyl-) Weighted average: 0.68 ppm
Water/Oil Dist. Coeff.	The product is much more soluble in octanol.
Ionicity (in Water)	Not available.
Dispersion Properties	Not dispersible 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 the presence of the following materials or conditions: open flames, sparks and static discharge.
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 a considerable distance to source of ignition and flash back. (Benzene, methyl-)
Flash Points	The lowest known value is Closed cup: 6°C (42.8°F). (Tagliabue.). Open cup: 9°C (48.2°F). (Tagliabue). (Benzene, methyl-)
Flammable Limits	The greatest known range is Lower: 6% Upper: 36.5% (Methanol)
Auto-Ignition Temperature	The lowest known value is 229°C (444.2°F) (Stoddard solvent).
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.

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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 Highly reactive or incompatible with the following materials: oxidizing materials. Reactive or incompatible with the following materials: reducing materials, organic materials, metals, acids and alkalis. Non-reactive or compatible with the following materials: combustible materials and moisture.

Corrosivity Not available.

Special Remarks on Reactivity MnO₂ is a powerful oxidizer. (Manganese oxide (MnO₂))

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): 2600 mg/kg [Rat.]. (Benzene, methyl-). Acute dermal toxicity (LD50): 3160 mg/kg [Rabbit]. (Stoddard solvent). Acute toxicity of the vapor (LC50): 64000 ppm 4 hour/hours [Rat.]. (Methanol).

Effects of Acute Exposure Very hazardous in case of skin contact (permeator), of ingestion, of inhalation.

Chronic Effects on Humans Slightly hazardous in case of inhalation.
CARCINOGENIC EFFECTS: Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [Methanol]. Classified 4 (Probably not for humans.) by IARC, None. by OSHA [Carbon Black]. Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [1-Butanol]. Classified 1 (Proven for humans.) by IARC, + (Proven.) by OSHA, + (Proven.) by NIOSH [Quartz (SiO₂)].
MUTAGENIC EFFECTS: Not available.
TERATOGENIC EFFECTS: Not available.
DEVELOPMENTAL TOXICITY: Not available.
 The substance is toxic to kidneys, the nervous system, liver. Repeated or prolonged exposure to the substance can produce target organs damage.

Special Remarks on Toxicity to Animals Not available.

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 edema, 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.

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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. Keep away from incompatibles such as oxidizing agents, reducing 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>WARNING: This product contains chemical/chemicals known to the state of California to cause cancer, birth defects or other reproductive harm.: Quartz (SiO₂); Benzene; Benzene, methyl-; Carbon Black</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.: Quartz (SiO₂); Benzene; Carbon Black</p> <p>Illinois toxic substances disclosure to employee act: Benzene, ethyl-</p> <p>New York release reporting list: Acetic Acid, Butyl Ester; Methanol; Acetic Acid, Butyl Ester</p> <p>New York acutely hazardous substances: Benzene, ethyl-</p> <p>Rhode Island RTK hazardous substances: Benzene, ethyl-; Methanol</p> <p>Pennsylvania RTK: Benzene, ethyl-; Benzene, dimethyl-; Acetic Acid, Butyl Ester; 1,2-Propanediol; Methanol: (environmental hazard); Benzene, methyl-; Acetic acid, 2-methylpropyl ester; Acetic acid, 2-methylpropyl ester; Acetic Acid, Butyl Ester</p> <p>Florida: Benzene, ethyl-; Acetic Acid, Butyl Ester; Methanol; Acetic Acid, Butyl Ester</p> <p>Minnesota: Benzene, ethyl-; Acetic Acid, Butyl Ester; Methanol; Acetic Acid, Butyl Ester</p> <p>Massachusetts RTK: Benzene, ethyl-; Acetic Acid, Butyl Ester; Methanol; Acetic acid, 2-methylpropyl ester; Acetic acid, 2-methylpropyl ester; Acetic Acid, Butyl Ester</p> <p>New Jersey: Benzene, ethyl-; Acetic Acid, Butyl Ester; Methanol; Benzene, methyl-; Acetic acid, 2-methylpropyl ester; Acetic acid, 2-methylpropyl ester; Acetic Acid, Butyl Ester</p> <p>TSCA 8(b) inventory: Benzene, ethyl-; Benzene, dimethyl-; Acetic Acid, Butyl Ester; Benzene, methyl-; N-Butyl Alcohol; Acetic acid, 2-methylpropyl ester; 1-Butanol; Acetic acid, 2-methylpropyl ester; Acetic Acid, Butyl Ester</p> <p>TSCA 5(e) substance consent order: Acetic Acid, Butyl Ester; Acetic Acid, Butyl Ester</p> <p>TSCA 8(d) H and S data reporting: Benzene, ethyl-</p> <p>TSCA 12(b) annual export notification: Acetic Acid, Butyl Ester; Acetic Acid, Butyl Ester</p> <p>SARA 302/304/311/312 hazardous chemicals: Methanol</p> <p>SARA 311/312 MSDS distribution - chemical inventory - hazard identification: Benzene, ethyl-; Fire hazard, Immediate (acute) health hazard; Benzene, dimethyl-: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard; Benzene, methyl-: Fire hazard, Immediate (acute) health hazard, Delayed (chronic) health hazard</p> <p>CERCLA: Hazardous substances.: Benzene, ethyl-: 1000 lbs. (453.6 kg); Benzene, dimethyl-: 100 lbs. (45.36 kg); Acetic Acid, Butyl Ester; Isobutyl alcohol; Methanol; Benzene, methyl-: 1000 lbs. (453.6 kg); N-Butyl Alcohol; Acetic acid, 2-methylpropyl ester; 1-Propanol, 2-methyl-; 1-Butanol; Acetic acid, 2-methylpropyl ester; Acetic Acid, Butyl Ester;</p>
Other Regulations	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications	WHMIS (Canada)	Class B-2: Flammable liquid Class D-1A: Material causing immediate and serious toxic effects (Very toxic). 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 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. DeBiasi on 2/23/2007. Verified by K. DeBiasi. Printed 1/29/2008.
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

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