Pro Form Products Ltd.
604 McGeachie Drive
Milton, Ontario, L9T 3Y5
Canada
905-878-4990

PRODUCT: PF 652C 2K Self Etching Chromate Free Primer - Olive

SECTION 01: IDENTIFICATION

Product identifier.....	PF 652C 2K Self Etching Chromate Free Primer - Olive
Other means of identification	
Chemical family.....	Mixture.
Recommended use and restrictions on use ..	Paints.
Initial supplier identifier.....	Pro Form Products Ltd. 604 McGeachie Drive Milton, Ontario L9T3Y5 Tel (905) 878-4990 Fax (905) 878-1189
24 hour emergency number:.....	For transportation emergencies (in Canada) call CANUTEC 1-888-226-8832 (CAN-UTEC); IN THE UNITED STATES CALL CHEMTREC 1-800-424-9300. ** For medical emergencies contact your local poison control centre **.
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NFPA rating.....	Health: 2 Fire: 4 Reactivity: 0.
HMIS.....	H: 2 F: 4 R: 0.

SECTION 02: HAZARD IDENTIFICATION

Hazard Classification.....	Flammable Liquid 2. Skin Irritation — Category 2. Serious Eye Damage — Category 1. Specific Target Organ Toxicity — Single Exposure — Category 3. (narcotic effects). (respiratory system). Carcinogenicity — Category 2. Reproductive Toxicity — Category 1. Specific Target Organ Toxicity — Single Exposure — Category 2. Specific Target Organ Toxicity — Repeated Exposure — Category 2.
Signal Word.....	DANGER.
Hazard Description.....	H225 Highly flammable liquid and vapour. H315 Causes skin irritation. H318 Causes serious eye damage. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H351 This product contains ingredients that are suspected of causing cancer. H360 May damage fertility or the unborn child. H371 May cause damage to organs. H373 May cause damage to organs through prolonged or repeated exposure.
Prevention.....	P201 Obtain special instructions before use. P202 Do not handle this product until all safety instructions have been read and understood. P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P233 Keep container tightly closed. P240 Ground and bond container and receiving equipment. P241 Use explosion proof equipment. P242 Use only non-sparking tools. P243 Take precautionary measures against static discharge. P260 Do not breathe mist, vapours, or spray. P264 Wash thoroughly after handling. P270 Do not eat drink or smoke while using this product. P271 Use only outdoors or in a well ventilated area. P280 Wear protective gloves and eye protection.
Response	P370 + P378 In case of fire - use dry chemical powder, CO2 or foam to extinguish. P303 + P361 + P353 If on skin or in hair: take off all contaminated clothing immediately. Rinse thoroughly with water and use safety shower . P302 + P352 - If on skin: wash with plenty of water. P362 + P364 - Take off contaminated clothing and wash before reuse. P332 + P313 - If skin irritation occurs get medical attention or advice. P305 + P351 + P338 If in eyes rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing until medical help arrives. P310 - Immediately call your local poison control centre. P304 + P340 - If inhaled remove person to fresh air and keep comfortable for breathing. P308 + P311 If exposed or concerned; call a poison center or doctor. P308 + P313 If exposed or concerned, get medical advice/attention.
Storage.....	P233 Keep container tightly closed. P403 + P235 Store in well ventilated area. Keep cool. P405 Store locked up.
Disposal.....	P501 Dispose all unused, waste or empty containers in accordance with local regulations.
Note	This product mixture has been classified based on its ingredients.

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SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Ethyl Alcohol	64-17-5	15-40
Talc	14807-96-6	7-13
Toluene	108-88-3	5-10
Acetone	67-64-1	5-10
Isopropyl Alcohol	67-63-0	5-10
Methanol	67-56-1	3-10
tert-Butyl acetate	540-88-5	1-5
Butyl Alcohol	71-36-3	1-5
Ethyl Acetate	141-78-6	1-5
Xylene	1330-20-7	0.5-1.5
Titanium Dioxide	13463-67-7	0.1-1
Ethylbenzene	100-41-4	0.1-1
<<The actual concentration(s) withheld as a trade secret>>	.	

SECTION 04: FIRST-AID MEASURES

Inhalation..... If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen, obtain medical attention.

Ingestion..... If ingestion is suspected, contact physician or poison control center immediately. Do not induce vomiting. If spontaneous vomiting occurs have victim lean forward with head down to prevent aspiration of fluid into the lungs. Never give anything by mouth to an unconscious person.

Skin contact..... Remove all contaminated clothing and immediately wash the exposed areas with copious amounts of water for a minimum of 30 minutes or up to 60 minutes for critical body areas. If irritation persists, seek medical attention.

Eye contact..... Immediately flush eyes with running water for a minimum of 30 minutes preferably up to 60 minutes. Check for and remove any contact lenses, if safe and easy to do so. Obtain medical attention.

Most important symptoms and effects, ... whether acute or delayed: Harmful if swallowed, in contact with skin or if inhaled. Methyl alcohol: The intoxication begins with central nervous system depression resulting in narcosis, followed by an asymptomatic latency period that usually lasts 12 to 24 hours. Metabolic acidosis sets in and symptoms such as headache, dizziness, nausea and vomiting appear. This is followed, in more serious cases, by abdominal and muscular pains as well as breathing difficulties. There are also disorders such as blurred vision, photophobia, impaired pupillary reflex and eye pain. Acetone is a serious eye irritant that can cause reversible damage to the cornea. It is slightly irritating to the skin. Causes skin irritation. Causes serious eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Can irritate mucous membranes of the respiratory tract. This product contains ingredients that are suspected of damaging fertility or the unborn child. This product contains ingredients that may cause cancer. Causes damage to organs through prolonged or repeated exposure.

Additional information..... The main hazard from ingestion is aspiration of the liquid into the lungs producing chemical pneumonitis. Treat victims symptomatically. In the event of an incident involving this product ensure that medical authorities are provided a copy of this safety data sheet.

SECTION 05: FIRE-FIGHTING MEASURES

Suitable and unsuitable extinguishing ..... media: "Alcohol" foam, CO2, dry chemical. Water fog. The water spray reduces the intensity of the flames. However, water jets can promote the spread of fire. Do not use water in a jet.

Specific hazards arising from the ..... hazardous product, such as the nature of any hazardous combustion products: Extremely flammable. This material is a static accumulator. This material may produce a floating fire hazard. Thermal decomposition products are toxic. May include:. Oxides of carbon (CO, CO2). Formaldehyde. Under hot acidic conditions:. Isobutylene. Acetic acid.

Special protective equipment and ..... precautions for fire-fighters: Firefighter should be equipped with self-contained breathing apparatus and full protective clothing to protect against potentially toxic and irritating fumes. Solvent vapours may be heavier than air and may build up and travel along the ground to an ignition source, which may result in a flash back to the source of the vapours. Cool fire-exposed containers with cold water spray. Heat will cause pressure buildup and may cause explosive rupture. Acetone is a highly flammable liquid. It is easily ignited in the presence of heat, an ignition source such as a naked flame or a spark (including electrostatic discharge). Aqueous solutions of acetone can also ignite. Acetone vapors are heavier than air and can travel a long distance to an ignition source and cause flashback.

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SECTION 06: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	Extremely flammable liquid. No action shall be taken involving any personal risk or without suitable training. Take precautions against static discharge. Use non-sparking tools and equipment to pick up the spilled material. Equipment should be grounded. Isolate area and keep unauthorized people away. Do not walk through spilled material. Wear recommended protective equipment. Ventilate. Open windows and doors to allow air circulation. Dike area to prevent spreading. The use of absorbent socks or spill pillows may be required. Stop leak if safe to do so. Prevent runoff into drains, sewers, and other waterways.
Methods and materials for containment and cleaning up Leak/spill.....	Ventilate. Eliminate all sources of ignition. Evacuate all non-essential personnel. Avoid all personal contact. Contain the spill. Prevent runoff into drains, sewers, and other waterways. Absorb with an inert dry material and place in an appropriate waste container. Spilled material and water rinses are classified as chemical waste, and must be disposed of in accordance with current local, provincial, state, and federal regulations.

SECTION 07: HANDLING AND STORAGE

Precautions for safe handling.....	Keep away from heat, sparks, and open flame. This material is a static accumulator. Prevent accumulation of electrostatic charges. Ground handling equipment. Avoid all skin contact and ventilate adequately, otherwise wear an appropriate breathing apparatus. Avoid breathing vapours or mist. Handle and open container with care. Employees should wash hands and face before eating or drinking.
Conditions for safe storage, including any incompatibilities	Keep away from heat, sparks, and open flames. Keep container closed when not in use. Store away from oxidizing and reducing materials. Store away from sunlight. Avoid:. Polystyrene, Natural rubber, Butyl rubber, EPDM.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	ACGIH TLV TWA	ACGIH TLV STEL	OSHA PEL PEL	OSHA PEL STEL	NIOSH REL
Ethyl Alcohol	1,000 ppm	Not established	1,000 ppm	Not established	1,000 ppm
	CA ON: 1,000 ppm (STEL)				
Talc	2 mg/m3	Not established	2 mg/m3 TWA	Not established	Not established
	CA ON: 2mg/kg (TWA)				
Toluene	20 ppm	Not established	200 ppm	500 ppm 10 minutes	100 ppm / STEL 150 ppm
	CA ON: TWA: 20 ppm				
Acetone	250 ppm TLV	500 ppm	1,000 ppm	Not established	250 ppm
	CA ON: 500ppm (TWA); 750ppm (STEL)				
Isopropyl Alcohol	200 ppm	400 ppm	400 ppm (TWA)	500 ppm	400 ppm
	CA ON: 200 ppm (TWA), 400 ppm (STEL)				
Methanol	200 ppm	250 ppm skin	200 ppm	Not established	200 ppm / STEL 250 ppm
	CA ON: 200 ppm (TWA), 250 ppm (STEL)				
tert-Butyl acetate	200 ppm	Not established	200 ppm	Not established	200 ppm
	CA ON: 50ppm (TWA), 150ppm (STEL)				
Butyl Alcohol	20 ppm	Not established	100 ppm	Not established	50 ppm skin
	CA ON: 20 ppm (TWA)				
Ethyl Acetate	400 ppm	Not established	400 ppm	Not established	400 ppm
	CA ON: 400 ppm (TWA)				
Xylene	50 ppm	150 ppm	100 ppm TWA	Not established	Not established
	ON: 100ppm (TWA); 150ppm (STEL)				
Titanium Dioxide	10 mg/m3	Not established	15 mg/m3	Not established	Not established
Ethylbenzene	100 ppm	125 ppm	100 ppm	Not established	100 ppm / STEL 125 ppm
	CA ON: 20ppm (TWA)				

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SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

Appropriate engineering controls.....	Provide natural or mechanical ventilation to control exposure levels below airborne exposure limits. Local mechanical exhaust ventilation should be used at sources of air contamination, such as open process equipment, or during purging operations, to capture gases and fumes that may be emitted. Standard reference sources regarding industrial ventilation (ie. ACGIH industrial ventilation) should be consulted for guidance about adequate ventilation. Explosion-proof exhaust ventilation.
Personal Protective Equipment	
Eye/type.....	Liquid chemical goggles. Chemical safety goggles and full faceshield if a splash hazard exists.
Gloves/ type.....	Wear skin protection equipment. The selection of skin protection equipment depends on the nature of the work to be performed. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Contact glove supplier for recommendations.
Respiratory/type.....	Local exhaust ventilation is recommended. Wear an appropriate, properly fitted respirator when contaminant levels exceed the recommended exposure limits. Consult CSA Z94.4-M1982.
Clothing/type.....	Wear adequate protective clothes.
Footwear/type.....	Safety boots per local regulations.
Other/type.....	Emergency showers and eye wash stations should be available. Employees should wash their hands and face before eating, drinking, or using tobacco products.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical state.....	Liquid.
Colour.....	Olive green.
Odour.....	Solvent odour.
Odour threshold (ppm).....	Not available.
pH.....	Not applicable.
Melting / Freezing point (deg C).....	< 0 °C. (estimate).
Initial boiling point / boiling range (deg C).	56°C (133 °F). (acetone).
Flash point (deg C), method.....	-18°C. (estimate; lowest flash point ingredient).
Evaporation rate.....	> 1.0.
Flammability (solids and gases).....	Not applicable. Flammable liquid.
Upper flammable limit (% vol).....	12.6.
Lower flammable limit (% vol).....	1.0.
Vapour pressure (mm Hg).....	Not available.
Vapour density (air=1).....	>1.
Relative Density (Specific Gravity).....	0.873.
Pounds / USG.....	7.28.
Solubility.....	Negligible.
Partition coefficient — n-octanol/water.....	Not available.
Auto ignition temperature (deg C).....	>300°C.
Decomposition temperature.....	Not available.
Viscosity.....	Not available.
% Volatile by volume.....	66.44.
VOC (less water).....	4.48 lb/USG; 536.8 g/L.

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Product is stable; hazardous polymerization will not occur.
Chemical stability.....	Stable at normal temperatures and pressures.
Possibility of hazardous reactions.....	Hazardous polymerization will not occur.
Conditions to avoid, including static ..... discharge, shock or vibration	Keep away from heat. Electrostatic charge.
Incompatible materails.....	Strong acids. Strong bases. Strong oxidizers. Reducing agents. Aldehydes. Ammonia. Peroxides. Chlorine compounds. Acetone reacts violently with chlorinated hydrocarbons such as chloroform in the presence of a strong base. Avoid natural, butyl, and neoprene rubbers.
Hazardous decomposition products.....	No hazardous decomposition products when stored and handled correctly. See hazardous combustion products section 5.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Ethyl Alcohol	20,000 ppm 10 hours rat	3,400 mg/kg oral mouse
Talc	Not available	Not available

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SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Toluene	8000 ppm rat inhalation 400 ppm mouse inhalation 24hr	5,000 mg/kg rat oral; 12,124 mg/kg rabbit dermal
Acetone	50,100 mg/m3 8 hours, rat	5,800 mg/kg (rat oral)
Isopropyl Alcohol	72600 mg/m3, rat (4 hr)	1870 mg/kg (oral, rat). 4059 mg/kg (dermal, rabbit)
Methanol	128.2 mg/L, 4h rat	420 mg/kg (oral); 5,628 mg/kg (rat oral); 15,800 mg/kg (rabbit dermal)
tert-Butyl acetate	>2,230 mg/m3 4 hours rat	4,100 mg/kg (rat, oral); >2,000 mg/kg (rabbit, dermal)
Butyl Alcohol	8,000 ppm 4 hours	790 mg/kg rat oral 3,400 mg/kg rabbit dermal
Ethyl Acetate	16,000 ppm 6 hours rat	5,600 mg/kg (rat oral)
Xylene	6350 ppm 4 hours rat	>3523 mg/kg rat oral
Titanium Dioxide	>6.8 mg/L (4 hr)	> 10,000 mg/kg (rat, oral) > 10,000 mg/kg (rabbit, dermal)
Ethylbenzene	No data	3,500 mg/kg rat oral 17,800 mg/kg rabbit dermal

Route of exposure..... Eye contact. Skin contact. Inhalation.

Symptoms related to the physical, chemical and toxicological characteristics

Effects of acute exposure..... Aspiration of liquid into lungs can cause chemical pneumonitis. Corrosive to eyes. Contact with eyes can cause severe irritation. May cause eye damage. Causes skin irritation. Causes damage to organs. Harmful if inhaled. Inhalation of vapours causes irritation to the nose, throat and respiratory tract. Inhalation of vapours or mist may cause drowsiness or dizziness. Methanol: The poisoning begins with central nervous system depression resulting in narcosis, followed by an asymptomatic latency period that usually lasts 12 to 24 hours. Metabolic acidosis sets in and then develops symptoms such as headache, dizziness, nausea and vomiting. This is followed, in more serious cases, by abdominal and muscular pains as well as breathing difficulties. There are also disorders such as blurred vision, photophobia, impaired pupillary reflex and eye pain. Depending on the degree of intoxication, these disorders may be reversible or may progress to a deterioration of vision that can lead to blindness in severe cases, especially by ingestion. The onset of these symptoms coincides with the development of metabolic acidosis. In severe cases, progression to coma and death is usually observed, which usually occurs with respiratory failure.

Effects of chronic exposure..... Breathing high concentrations of vapour may cause anesthetic effects and serious health effects. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal. Prolonged or repeated skin contact may cause drying or cracking of skin.

Carcinogenicity of material..... Ethylbenzene is classified as an A3 known animal carcinogen. Ethyl Alcohol is classified as an A3 known animal carcinogen and is listed by IARC in Group 1. IARC has classified Toluene as a Group 3 (Not classifiable as to its carcinogenicity to humans); ACGIH has classified Toluene as a Group A4 (Not classifiable as a human carcinogen). Xylene has been listed by IARC as a Group 3; not classifiable as to its carcinogenicity to humans. Isopropyl Alcohol is listed by IARC as a Group 3 Carcinogen; not classifiable as to its carcinogenicity to humans . This product contains non-asbestiform Talc, which is classified as a Group 3 (not classifiable as to carcinogenicity to humans) by IARC .

Reproductive effects..... Toluene is fetotoxic in rats and mice at maternally toxic levels. Prolonged and repeated exposure of pregnant animals (>1500 ppm) to Toluene have been reported to cause adverse fetal developmental effects. High level exposure to Xylene in some animal studies have been reported to cause health effects on the developing embryo/fetus. The relevance of this to humans is not known. Methanol is teratogenic and embryotoxic in animals.

Sensitizing capability of material..... None reported.

Specific Target Organ Toxicity ..... May cause drowsiness or dizziness. May cause respiratory irritation. Causes damage to organs.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity..... Product data not available.

Persistence and degradability..... Product data not available.

Bioaccumulative potential..... Product data not available.

Mobility in soil..... Product data not available.

Other adverse effects..... Do not allow to enter waters, waste water or soil.

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SECTION 13: DISPOSAL CONSIDERATIONS

Information on safe handling for disposal and methods of disposal, including any contaminated packaging	Dispose of waste in accordance with all applicable Federal, Provincial/State and local regulations. Empty containers must be handled with care due to product residue.

SECTION 14: TRANSPORT INFORMATION

TDG Classification	UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II - This product meets the Limited Quantity exemption when packaged in containers less than 5 liters.
DOT Classification (Road)	UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II - Ltd Qty (1 litre). Refer to 49CRF 172.101 for additional non-bulk packaging requirements.
IATA Classification (Air)	UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II. Limited Quantity. Do not ship by air without checking appropriate IATA regulations.
IMDG Classification (Marine)	UN1263 - PAINT RELATED MATERIAL - Class 3 - Packing Group II - EmS: F-E S-E. Limited Quantity. Check IMDG regulations for limited quantity exemptions.
Marine Pollutant	No.
Proof of Classification	In accordance with Part 2.2.1 of the Transportation of Dangerous Goods Regulations (July 2, 2014) - we certify that classification of this product is correct. .

SECTION 15: REGULATORY INFORMATION

CEPA status	On Domestic Substances List (DSL).
TSCA inventory status	All components are listed.
OSHA	This product is considered hazardous under the OSHA Hazard Communication Standard.
SARA Title III	
Section 302 - extremely hazardous substances	None.
Section 311/312 - hazard categories	Immediate health, delayed health, fire hazard.
Section 313	Butyl alcohol. Ethylbenzene. Isopropyl alcohol. Methanol. Nickle compounds. Toluene. Xylene. Zinc compounds.
EPA hazardous air pollutants (HAPS) 40CFR63	Arsenic compounds. Chromium Compounds. Ethylbenzene. Manganese Compounds. Methanol. Nickel compounds. Toluene. Xylene.
California Proposition 65	*** ! WARNING: This product can expose you to chemicals including [see below], which are known to the State of California to cause birth defects or other reproductive harm. (Chromium (hexavalent compounds)) (D). (Methanol). (Toluene). *** ! WARNING: This product can expose you to chemicals including [see below], which are known to the State of California to cause cancer . (Arsenic (inorganic arsenic compounds)). (Chromium (hexavalent compounds)). (Ethyl benzene). (Nickel compounds). (Titanium dioxide - airborne, unbound particles of respirable size). For more information, go to www.P65Warnings.ca.gov.

SECTION 16: OTHER INFORMATION

Prepared by:	REGULATORY AFFAIRS. Trivalent Data Systems Ltd. www.trivalent.com.
Telephone number:	(800) 387-7981.
Disclaimer:	DISCLAIMER: All information appearing herein is based upon data obtained from experience and recognized technical sources. To the best of our knowledge, it is believed to be correct as of the date of issue but we make no representations as to its accuracy or sufficiency and do not suggest or guarantee that any hazards listed herein are the only ones which exist. The hazard information contained herein is offered solely for the consideration of the user, subject to his own investigation and verification of compliance with applicable regulations, including the safe use of the product under every foreseeable condition. The information relates only to the product designated herein, and does not relate to its use in combination with any other material or in any other process.
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