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

PRODUCT: PF 513 TRIPLE STRENGTH GLASS CLEANER

SECTION 01: IDENTIFICATION

Initial supplier identifier.....	Pro Form Products Ltd. 604 McGeachie Drive Milton, Ontario L9T3Y5 Tel (905) 878-4990 Fax (905) 878-1189
Product identifier.....	PF 513 TRIPLE STRENGTH GLASS CLEANER
Recommended use and restrictions on use ..	Cleaning solution.
Chemical family.....	Mixture.
NFPA rating.....	Health: 2 Fire: 4 Reactivity: 0.
HMIS.....	H: 2 F: 4 R: 0.
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 **.

SECTION 02: HAZARD IDENTIFICATION

Signal Word.....	WARNING.
Hazard Classification.....	Aerosol - Category 3. Gas under pressure: Compressed Gas. Skin Irritation — Category 3. Eye Irritation — Category 2A.
Hazard Description.....	H229 Pressurized container: may burst if heated. H280 Contains gas under pressure; may explode if heated. H316 Causes mild skin irritation. H319 Causes serious eye irritation.
Prevention.....	P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P251 Do not pierce or burn container, even after use. P264 Wash thoroughly after handling. P280 Wear protective gloves and eye protection.
Response	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. P337 + P313 - If eye irritation persists get medical attention. P332 + P313 - If skin irritation occurs get medical attention or advice.
Storage.....	P403 Store in a well ventilated area. P410 Protect from sunlight. P412 Do not expose to temperature exceeding 50°C / 122°F.
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.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Isopropyl Alcohol	67-63-0	5-10
Isobutane	75-28-5	5-10
2-Butoxyethanol	111-76-2	1-5
Ammonia	7664-41-7	0.1-1

<<The actual concentration(s) withheld as a trade secret>> .

SECTION 04: FIRST-AID MEASURES

Eye contact.....	In case of contact, immediately flush eyes, keeping eyelids open, with plenty of water for at least 15 minutes. Check for and remove any contact lenses, if safe and easy to do so. Obtain medical attention.
Skin contact.....	Immediately remove all contaminated clothing, flush skin with water for at least 15 minutes. Wash clothing before reuse. If irritation persists, seek medical attention.

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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.
Most important symptoms and effects, ... whether acute or delayed	Causes skin and eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
Additional information.....	Treat victims symptomatically. The main hazard from ingestion is aspiration of the liquid into the lungs producing chemical pneumonitis. 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. In cases of larger fires, water spray should be used. Do not use water in a jet.
Specific hazards arising from the ..... hazardous product, such as the nature of any hazardous combustion products	Oxides of carbon (CO, CO2). Hydrocarbon fumes and smoke.
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. Cool fire-exposed containers with cold water spray. Heat will cause pressure buildup and may cause explosive rupture. Keep run-off water from entering sewers and other waterways. Dike for water control.

SECTION 06: ACCIDENTAL RELEASE MEASURES

Leak/spill.....	Ventilate. Eliminate all sources of ignition. Avoid all personal contact. Evacuate all non-essential personnel. 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.....	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Keep away from heat, sparks, and open flame. Avoid all skin contact and ventilate adequately, otherwise wear an appropriate breathing apparatus. Avoid breathing vapours or mist. Always adopt precautionary measures against build-up of static which may arise from appliances, handling and the containers in which product is packed. Ground handling equipment. 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. Do not store above 50 deg C.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

INGREDIENTS	ACGIH TLV TWA	ACGIH TLV STEL	OSHA PEL PEL	OSHA PEL STEL	NIOSH REL
Isopropyl Alcohol	200 ppm	400 ppm	400 ppm (TWA)	500 ppm	400 ppm
	CA ON: 200 ppm (TWA), 400 ppm (STEL)				
Isobutane	Not established	Not established	Not established	Not established	800 ppm
2-Butoxyethanol	20 ppm	No data	50 ppm (240 mg/m3)	No data	5 ppm (24 mg/m3)
Ammonia	25 ppm	35 ppm 15 minutes	50 ppm	35 ppm (vacated)	35 ppm - 35 ppm STEL 15 minutes
	25 mg/m3				

Personal Protective Equipment

Respiratory/type.....	Local exhaust ventilation is recommended. Wear an appropriate, properly fitted respirator when contaminant levels exceed the recommended exposure limits.

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SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

Eye/type	Liquid chemical goggles. Chemical safety goggles and full faceshield if a splash hazard exists.
Gloves/ type	Chemical resistant gloves.
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.
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.

SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES

Appearance/Physical state	Aerosol.
Colour	Cloudy.
Odour	Fragrance.
Odour threshold (ppm)	Not available.
Vapour pressure (mm Hg)	Aerosol vapour pressure:. 45-55 psig @ 21C.
Vapour density (air=1)	>1.
pH	10.5 - 11.
Relative Density (Specific Gravity)	(Aerosol) . 0.920 - 0.970. (Liquid) . 0.950 - 1.000.
Melting / Freezing point (deg C)	-89 °C . (isopropyl alcohol).
Solubility	Soluble.
Initial boiling point / boiling range (deg C).	82°C . (isopropyl alcohol).
Evaporation rate	No data.
Flash point (deg C), method	-82.8 C (iso-butane).
Auto ignition temperature (deg C)	460 °C (propellant) .
Upper flammable limit (% vol)	8.4. (propellant).
Lower flammable limit (% vol)	1.8. (propellant).
Partition coefficient — n-octanol/water	Not available.
% Volatile by weight	21.
VOC (less water)	1.64 lb/usg.
Viscosity	Not available.

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. Incompatible with strong oxidizers. Electrostatic charge.
Hazardous decomposition products	See hazardous combustion products section 5.

SECTION 11: TOXICOLOGICAL INFORMATION

INGREDIENTS	LC50	LD50
Isopropyl Alcohol	72600 mg/m3, rat (4 hr)	1870 mg/kg (oral, rat). 4059 mg/kg (dermal, rabbit)
Isobutane	52 mg/L 1 hour mouse	Not available
2-Butoxyethanol	450 ppm 4 hr rat	1300 mg/kg (rat oral) >2000 mg/kg (rabbit dermal)
Ammonia	48.4 mg/L 1 hour rat	350 mg/kg oral rat

Route of exposure	Inhalation. Skin contact. Eye contact.
Skin contact	Prolonged contact may cause mild irritation and itching. Symptoms may include redness, swelling, itching, dryness, cracking, blistering and pain. Prolonged contact may cause defatting of tissue.
Skin absorption	May be harmful if absorbed through the skin.
Eye contact	Causes eye irritation. Can cause redness, irritation, tissue destruction.
Ingestion	May be harmful or fatal if swallowed. Swallowing causes inebriation, headache, vomiting, leading to severe illness, blindness, even death. Aspiration of material into lungs can cause chemical pneumonitis which can be fatal.
Inhalation (acute)	Excessive inhalation of vapours can cause respiratory irritation, dizziness, headache, vomiting and unconsciousness.

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SECTION 11: TOXICOLOGICAL INFORMATION

Inhalation (chronic).....	Chronic exposure to organic solvent vapors have been associated with various neurotoxic effects including permanent brain and/or nervous system damage, kidney, liver, blood damage and reproductive effects among women. Symptoms may include nausea, vomiting, abdominal pain, headache, impaired memory, loss of coordination, insomnia and breathing difficulties.
Effects of chronic exposure.....	Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal. Breathing high concentrations of vapour may cause anesthetic effects and serious health effects. Prolonged or repeated skin contact may cause drying or cracking of skin.
Carcinogenicity of material.....	None of the components present in this material at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.
Reproductive effects.....	No data on reproductive effects were found in the literature sources consulted.

SECTION 12: ECOLOGICAL INFORMATION

Environmental.....	Do not allow to enter waters, waste water or soil.
Persistence and degradability.....	Not available.

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.

SECTION 14: TRANSPORT INFORMATION

TDG Classification.....	UN1950 - AEROSOLS, non-flammable - Class 2.2 - limited quantity 1L.
DOT Classification (Road).....	UN1950 - AEROSOLS, non-flammable - Class 2.2 - limited quantity 1L. Refer to 49CRF 172.101 for additional non-bulk packaging requirements.
IATA Classification (Air).....	UN1950 - AEROSOLS, non-flammable - Class 2.2 - Ltd. Qty. Do not ship by air without checking appropriate IATA regulations.
IMDG Classification (Marine).....	UN1950 - AEROSOLS, non-flammable - Class 2.2 - F-D, S-U. Limited Quantity. Check IMDG regulations for limited quantity exemptions.
Marine Pollutant.....	Potential marine pollutant.
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	Ammonia.
Section 311/312 - hazard categories.....	Immediate health, delayed health, fire hazard.
Section 313.....	Ammonia. Isopropyl alcohol.
EPA hazardous air pollutants (HAPS) 40CFR63	None.
California Proposition 65.....	This product does not contain any chemical(s) known to the State of California to cause cancer or reproductive toxicity. 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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