



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

**PRODUCT: PB 1402-4 CITRIS BRIGHTENER**

### 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..... PB 1402-4 CITRIS BRIGHTENER

Recommended use and restrictions on .. Cleaner. for industrial use only-keep out of reach of children .  
use

Chemical family..... Mixture.

NFPA rating..... Health: 3 Fire: 1 Reactivity: 0.

HMIS..... H: 3 F: 1 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..... DANGER.

Hazard Classification..... Flammable Liquid 4. Skin Corrosion — Category 1. Serious Eye Damage — Category 1. Health Hazard Not Otherwise Classified 1. Causes serious damage to the respiratory tract.

Hazard Description..... H227 Combustible liquid. H314 Causes severe skin burns and eye damage. H318 Causes serious eye damage.

Prevention..... P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking. P260 Do not breathe the mist, vapours, or spray. P264 Wash thoroughly after handling. 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 . P363 - Wash contaminated clothing before reuse. 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. P304 + P340 - If inhaled remove person to fresh air and keep comfortable for breathing. P301 + P330 + P331 If Swallowed: Rinse mouth. Do NOT induce vomiting. P310 - Immediately call your local poison control centre.

Storage..... P403 Store in a well ventilated area. 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.

### SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

CHEMICAL NAME AND SYNONYMS	CAS #	WT. %
Disodium metasilicate	6834-92-0	3-7
2-Butoxyethanol	111-76-2	3-7
Benzenesulfonic acid, C10-16 alkyl derivatives	68584-22-5	1-5
Phosphoric Acid	7664-38-2	1-5
Sodium hydroxide	1310-73-2	1-5
Tetrasodium EDTA	64-02-8	0.5-1.5

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

**PRODUCT: PB 1402-4 CITRIS BRIGHTENER****SECTION 04: FIRST-AID MEASURES**

Eye contact.....	Check for and remove any contact lenses, if safe and easy to do so. Immediately flush eyes with running water for a minimum of 30 minutes preferably up to 60 minutes. Get medical attention immediately.
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.
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. 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 severe skin burns and eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Direct contact with eyes may cause temporary irritation. Causes serious injury to the respiratory system.
Additional information.....	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, CO <sub>2</sub> , dry chemical. In cases of larger fires, water spray should be used.
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.
Unusual fire / explosion hazards.....	Vapours may be heavier than air. May travel long distances along the ground before igniting and flashing back to vapour source.
Specific hazards arising from the ..... hazardous product, such as the nature of any hazardous combustion products	Oxides of carbon (CO, CO <sub>2</sub> ). Hydrocarbon fumes and smoke. Acidic fumes.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

Leak/spill.....	Ventilate. Eliminate all sources of ignition. Avoid all personal contact. Contain the spill. Prevent runoff into drains, sewers, and other waterways. Evacuate all non-essential personnel. 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.
Personal precautions, protective ..... equipment and emergency procedures	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	Dike area to contain the spill, prevent runoff from going into drains, absorb residual material with an inert absorbent, shovel or pump to a properly labelled container and dispose of as a hazardous waste.

**SECTION 07: HANDLING AND STORAGE**

Precautions for safe handling.....	Avoid all skin contact and ventilate adequately, otherwise wear an appropriate breathing apparatus. Always adopt precautionary measures against build-up of static which may arise from appliances, handling and the containers in which product is packed. Avoid breathing vapours or mist. Ground handling equipment. Handle and open container with care. Employees should wash hands and face before eating or drinking. Keep away from heat, sparks, and open flame.
Conditions for safe storage, including any ..... incompatibilities	Keep container closed when not in use. Store away from all sources of heat and ignition. Store away from oxidizing and reducing materials. Store away from sunlight. May be corrosive to aluminum.

**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	TWA	ACGIH TLV STEL	OSHA PEL STEL	REL	NIOSH
Disodium metasilicate	2 mg/m <sup>3</sup> (analogy)	Not Established	Not Established	Not Established	Not Established
2-Butoxyethanol	20 ppm	No data	50 ppm (240 mg/m <sup>3</sup> )	No data	5 ppm (24 mg/m <sup>3</sup> )

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**SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION**

INGREDIENTS	TWA	ACGIH TLV STEL	PEL	OSHA PEL STEL	REL NIOSH
Benzenesulfonic acid, C10-16 alkyl derivatives	Not Established	Not Established	Not Established	Not Established	Not Established
Phosphoric Acid	1 mg/m3 CA ON: 1 mg/m3(TWA), 3 mg/m3(STEL)	3 mg/m3	1 mg/m3	3 mg/m3	1 mg/m3
Sodium hydroxide	2 mg/m3	Not Established	2 mg/m3	Not Established	Not Established
Tetrasodium EDTA	Not Established	Not Established	Not Established	Not Established	Not Established
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.				
Personal Protective Equipment					
Respiratory/type.....	Local exhaust ventilation is recommended. Wear an appropriate, properly fitted respirator when contaminant levels exceed the recommended exposure limits.				
Eye/type.....	Chemical safety goggles and full faceshield if a splash hazard exists.				
Gloves/ type.....	Wear skin protection equipment. The selection of this equipment depends on the nature of the work to be done.				
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.....	No data.
Odour.....	Characteristic odour.
Odour threshold (ppm).....	Not available.
pH.....	No Data.
Melting / Freezing point (deg C).....	< 0 °C.
Initial boiling point / boiling range (deg C).....	> 100° C.
Flash point (deg C), method.....	62 C. (estimate; lowest flash point ingredient).
Evaporation rate.....	Similar to water.
Flammability (solids and gases).....	Not applicable.
Upper flammable limit (% vol).....	No data.
Lower flammable limit (% vol).....	No Data.
Vapour pressure (mm Hg).....	No data.
Vapour density (air=1).....	Similar to water.
Relative Density (Specific Gravity).....	8.39 lbs/USG; 1.005.
Solubility.....	Soluble.
Partition coefficient — n-octanol/water.....	No data.
Auto ignition temperature (deg C).....	>230°C.
Decomposition temperature.....	Not available.
Viscosity.....	No data.
VOC (less water).....	1.87 lbs/USG.

**SECTION 10: STABILITY AND REACTIVITY**

Reactivity .....	Avoid heat, sparks and flames. Explosive reactions can occur in the presence of strong oxidizing agents.
Chemical stability.....	Stable at normal temperatures and pressures.
Possibility of hazardous reactions.....	Hazardous polymerization will not occur.
Conditions to avoid, including static .....	Keep away from heat. Incompatible with strong oxidizers.
discharge, shock or vibration	
Incompatible materials.....	Strong oxidizing agents. Reducing agents.
Hazardous decomposition products.....	No hazardous decomposition products when stored and handled correctly.

**SECTION 11: TOXICOLOGICAL INFORMATION**

**PRODUCT: PB 1402-4 CITRIS BRIGHTENER****SECTION 11: TOXICOLOGICAL INFORMATION**

INGREDIENTS	LC50	LD50
Disodium metasilicate	> 2.06 g/m <sup>3</sup>	1153 mg/kg (oral, rat) >5000 mg/kg (dermal, rat)
2-Butoxyethanol	450 ppm 4 hr rat	1300 mg/kg (rat oral) >2000 mg/kg (rabbit dermal)
Benzenesulfonic acid, C10-16 alkyl derivatives	Not Available	Not Available
Phosphoric Acid	1.689 mg/L 1 hour rabbit	1,530 mg/kg rat oral 2,740 mg/kg rabbit dermal
Sodium hydroxide	No Data	104-340 mg/kg oral rat 1350 mg/kg dermal rabbit
Tetrasodium EDTA	Not Available	Not Available
Route of exposure.....	Eye contact. Skin contact. Inhalation.	
Effects of acute exposure.....	Hazardous in contact with skin, by ingestion, and by inhalation. Causes serious eye irritation. Contact with skin can cause severe irritation. Causes serious injury to the respiratory system. Inhalation of high vapour may cause central nervous system effects, dizziness, headache, nausea, or loss of coordination.	
Effects of chronic exposure.....	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. Intentional misuse by deliberately concentrating and inhaling this product may be harmful or fatal.	
Carcinogenicity of material.....	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC or ACGIH.	
Reproductive effects.....	No component of this product present at levels greater than or equal to 0.1% .	

**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. Empty containers must be handled with care due to product residue.

**SECTION 14: TRANSPORT INFORMATION**

TDG Classification..... UN1760 - CORROSIVE LIQUID, N.O.S. (Disodium metasilicate), Class 8, PG III. Limited Quantity Index: 5 L.  
 DOT Classification (Road)..... UN1760 - CORROSIVE LIQUID, N.O.S. (Disodium metasilicate), Class 8, PG III. Ltd Qty (5 Liters/1.3 Gallons).  
 IATA Classification (Air)..... UN1760 - CORROSIVE LIQUID, N.O.S. (Disodium metasilicate), Class 8, PG III. Limited Quantity. Do not ship by air without checking appropriate IATA regulations.  
 IMDG Classification (Marine)..... UN1760 - CORROSIVE LIQUID, N.O.S. (Disodium metasilicate), Class 8, PG III. 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 ..... Sulphuric acid.  
 substances  
 Section 311/312 - hazard categories..... Immediate health, delayed health.  
 Section 313..... None above De minimus % limit.  
 EPA hazardous air pollutants (HAPS) ..... None.  
 40CFR63  
 California Proposition 65..... \*\*\* ! WARNING: This product can expose you to chemicals including [see below], which are known to the State of California to cause cancer . (Strong inorganic acid mists containing sulfuric acid). For more information, go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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SECTION 16: OTHER INFORMATION

Prepared by: ..... REGULATORY AFFAIRS. Trivalent Data Systems Ltd. www.trivalent.com.  
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 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.

Review Date:..... 2022-11-30.  
 Date of the latest revision of the safety .. 2018-10-04  
 data sheet