



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

PRODUCT: PF 88412-1 UNIVERSAL BINDER LOW VOC (CLEAR)

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 88412-1 UNIVERSAL BINDER LOW VOC (CLEAR)

Recommended use and restrictions on .. Paints.
use

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..... DANGER.

Hazard Classification..... Flammable Liquid 2. Eye Irritation — Category 2A. Specific Target Organ Toxicity — Single Exposure — Category 3. (narcotic effects). (respiratory system). Reproductive Toxicity — Category 2. Specific Target Organ Toxicity — Repeated Exposure — Category 2.

Hazard Description..... H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. H361 Suspected of damaging fertility or the unborn child. 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 the mist, vapours, or spray. P264 Wash thoroughly after handling. 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 . 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. P308 + P313 If exposed or concerned, get medical advice/attention. P304 + P340 - If inhaled remove person to fresh air and keep comfortable for breathing. P312 Call a POISON CENTER/doctor if you feel unwell.

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.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS

| CHEMICAL NAME AND SYNONYMS | CAS # | WT. % |
|----------------------------|----------|-------|
| Acetone | 67-64-1 | 30-60 |
| Acetic acid, methyl ester | 79-20-9 | 10-30 |
| Toluene | 108-88-3 | 5-10 |

PRODUCT: PF 88412-1 UNIVERSAL BINDER LOW VOC (CLEAR)**SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS**

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| tert-Butyl acetate | 540-88-5 | 3-7 |
| <<The actual concentration(s) withheld as a trade secret>> . | | |

SECTION 04: FIRST-AID MEASURES

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| 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. If irritation persists, 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. |
| 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 eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Acetone is a serious eye irritant that can cause reversible damage to the cornea. It is slightly irritating to the skin. Harmful by inhalation. High vapour concentrations may be irritating to the respiratory tract. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. This product contains ingredients that are suspected of damaging fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. |
| 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

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| 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 | Extremely flammable. Thermal decomposition products are toxic. May include: Oxides of carbon (CO, CO2). Hydrocarbon fumes and smoke. 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. Keep run-off water from entering sewers and other waterways. Dike for water control. |

SECTION 06: ACCIDENTAL RELEASE MEASURES

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| Personal precautions, protective equipment and emergency procedures | No action shall be taken involving any personal risk or without suitable training. Equipment should be grounded. Use non-sparking tools and equipment to pick up the spilled material. 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..... | Keep away from heat, sparks and flames. 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. Use non-sparking tools and equipment to pick up the spilled material. 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

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| Precautions for safe handling..... | 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. Prevent accumulation of electrostatic charges. 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. Do NOT use compressed air for handling. Handle and open container with care. Employees should wash hands and face before eating or drinking. |
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PRODUCT: PF 88412-1 UNIVERSAL BINDER LOW VOC (CLEAR)**SECTION 07: HANDLING AND STORAGE**

Conditions for safe storage, including any incompatibilities

Store in a cool and dry place, for product integrity. Keep container closed when not in use. Store away from all sources of heat and ignition. Attacks some types of rubber, plastics and coatings.

SECTION 08: EXPOSURE CONTROLS / PERSONAL PROTECTION

| INGREDIENTS | TWA | ACGIH TLV STEL | PEL | OSHA PEL STEL | REL | NIOSH |
|---------------------------------------|---|-------------------|-----------|--------------------|------------------------|-------|
| Acetone | 250 ppm TLV CA ON AB: 500ppm (TWA); 750ppm (STEL) | 500 ppm | 1,000 ppm | Not established | 250 ppm | |
| Acetic acid, methyl ester | 200 ppm CA ON: 200ppm (TWA), 250ppm (STEV-C) | Not established | 200 ppm | Not established | Not established | |
| Toluene | 20 ppm CA ON: TWA: 20 ppm | Not established | 200 ppm | 500 ppm 10 minutes | 100 ppm / STEL 150 ppm | |
| tert-Butyl acetate | 200 ppm CA ON AB BC: 50ppm (TWA), 200ppm (STEL) | Not established | 200 ppm | Not established | 200 ppm | |
| 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 | | | | | | |
| 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. The following gloves are recommended :. Butyl rubber. | | | | | |
| Clothing/type..... | Wear adequate protective clothes. | | | | | |
| Footwear/type..... | Safety boots per local regulations. | | | | | |
| Respiratory/type..... | Local exhaust ventilation is recommended. Wear an appropriate, properly fitted respirator when contaminant levels exceed the recommended exposure limits. | | | | | |
| 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

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| Appearance/Physical state..... | Liquid. |
| Colour..... | Clear. |
| Odour..... | Fruity characteristic. |
| Odour threshold (ppm)..... | Not available. |
| pH..... | Not applicable. |
| Melting / Freezing point (deg C)..... | Not available. |
| Initial boiling point / boiling range (deg C)..... | > 56 °C. |
| 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)..... | 1.3. |
| Vapour pressure (mm Hg)..... | No data. |
| Vapour density (air=1)..... | No data. |
| Relative Density (Specific Gravity)..... | 0.909. |
| Pounds / USG..... | 7.59. |
| Solubility..... | No data. |
| Partition coefficient — n-octanol/water..... | Not available. |
| Auto ignition temperature (deg C)..... | No data. |
| Decomposition temperature..... | Not available. |
| Viscosity..... | 700 cPs. #4 @ 20 RPM. |
| VOC (less water)..... | 2.03 lb/usg - 243.25 g/L. |
| % Volatile by volume..... | 8.39. |

PRODUCT: PF 88412-1 UNIVERSAL BINDER LOW VOC (CLEAR)**SECTION 10: STABILITY AND REACTIVITY**

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| 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 | Avoid heat, spark, open flames. Direct sunlight. |
| Incompatible materials..... | Strong oxidizing agents, acids, bases. Reducing agents. Aldehydes. Ammonia. Peroxides. Chlorine compounds. Nitrates. Plastics. Acetone may form explosive mixtures with; chromic anhydride. chromyl alcohol. hexachloromelamine. Hydrogen peroxide. permonosulfuric acid. Potassium tert-butoxide. thioglycol. |
| 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 |
|--|--|---|
| Acetone | 50,100 mg/m ³ 8 hours, rat | 5,800 mg/kg (rat oral) |
| Acetic acid, methyl ester | 16000 ppm (Rat) 4 h | LD50 5001 mg/kg (oral rat) LD50 5001 mg/kg (dermal rabbit) |
| Toluene | 8000ppm (rat inhalation) 400ppm mouse (inhalation 24hr) | 5,000 mg/kg (rat ora); 12,124 mg/kg (rabbit dermal) |
| tert-Butyl acetate | >2,230 mg/m ³ 4 hours rat | 4,100 mg/kg (rat, oral); >2,000 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..... | Causes serious eye irritation. This product is harmful if inhaled or swallowed. Inhalation may cause respiratory tract irritation. Ingestion may result in gastrointestinal irritation, nausea, vomiting, and diarrhea. | |
| 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. May cause damage to organs through prolonged or repeated exposure. | |
| Carcinogenicity of material..... | Acetone may contain trace amounts of benzene, a chemical known to cause cancer. | |
| Reproductive effects..... | Acetone has been shown to cause reproductive effects in rats by ingestion and inhalation. | |
| Mutagenicity..... | The data does not allow for an adequate assessment of the mutagenic effect. | |
| Sensitizing capability of material..... | None known. | |
| Specific Target Organ Toxicity | May cause drowsiness or dizziness. May cause respiratory irritation. Causes damage to organs through prolonged or repeated exposure . | |

SECTION 12: ECOLOGICAL INFORMATION

Environmental..... No product data. Do not allow to enter waters, waste water or soil.

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 49CFR 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. .

PRODUCT: PF 88412-1 UNIVERSAL BINDER LOW VOC (CLEAR)**SECTION 15: REGULATORY INFORMATION**

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| 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 | Formaldehyde. |
| Section 311/312 - hazard categories..... | Immediate health, delayed health, fire hazard. |
| Section 313..... | Toluene. |
| EPA hazardous air pollutants (HAPS) 40CFR63 | Formaldehyde. Methanol. Toluene. |
| 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. (Methanol). (Toluene). *** ! WARNING: This product can expose you to chemicals including [see below], which are known to the State of California to cause cancer . (Formaldehyde - dissolved). For more information, go to www.P65Warnings.ca.gov . |

SECTION 16: OTHER INFORMATION

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| 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. |
| Review Date:..... | 2022-11-30. |
| Date of the latest revision of the safety data sheet | 2019-11-29 |