



## 1. Product and Company Identification

**Product Name**                      **Dynamic**  
**CAS #**                                Mixture  
**Product Use**                      Descaler - Cleaner - Brightener  
**Manufacturer**                    Frank's Maintenance Products Inc.  
    1299 Strasburg Rd  
    Kitchener, Ontario  
    N2R 1H2 Canada  
    Phone (519) 748-4433  
    Fax (519) 748-5397  
  
**CANUTEC**                            (613) 996-6666

### LEGEND HMIS/NFPA

Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/	3
Flammability		0
Physical Hazard		0
Personal Protection		B

## 2. Hazards Identification

**Emergency Overview**                      DANGER -- CORROSIVE  
**Potential short term health effects**  
     **Routes of exposure**                      Eye, Skin contact, Inhalation, Ingestion.  
     **Eyes**    Causes chemical burns. May cause blindness.  
     **Skin**    Causes chemical burns.  
     **Inhalation**                                      Harmful if inhaled. May cause respiratory tract irritation.  
     **Ingestion**                                        Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.  
**Target organs**                                  Eyes. Respiratory system. Skin.  
**Chronic effects**                                  Prolonged or repeated exposure to dilutions can cause drying, defatting and dermatitis.  
**Signs and symptoms**                        The product causes burns of eyes, skin and mucous membranes.

## 3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Alcohols, C12-16, ethoxylated	68551-12-2	1 - 5
Phosphoric acid	7664-38-2	30 - 60

## 4. First Aid Measures

**First aid procedures**  
     **Eye contact**                                  Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.  
     **Skin contact**                                  Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.  
     **Inhalation**                                      If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.  
     **Ingestion**                                        Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.  
  
**General advice**                                  If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

## 5. Fire-fighting Measures

<b>Flammable properties</b>	Not flammable by WHMIS criteria.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Dry chemical. Carbon dioxide. Water spray. Alcohol foam.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Toxic fumes.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

## 6. Accidental Release Measures

<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Methods for containment</b>	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labeled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

## 7. Handling and Storage

<b>Handling</b>	Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.
<b>Storage</b>	Keep out of the reach of children. Store in a closed container away from incompatible materials.

## 8. Exposure Controls / Personal Protection

<b>Exposure limits</b>	
<b>Ingredient(s)</b>	<b>Exposure limits</b>
Alcohols, C12-16, ethoxylated	<b>ACGIH-TLV</b> Not established
Phosphoric acid	<b>ACGIH-TLV</b> TWA: 1 mg/m3 STEL: 3 mg/m3
<b>Engineering controls</b>	Use only under good ventilation conditions or with respiratory protection.
<b>Personal protective equipment</b>	
<b>Eye/Face protection</b>	Wear chemical goggles.
<b>Hand protection</b>	Rubber gloves. Confirm with a reputable supplier first.
<b>Skin and body protection</b>	As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
<b>General hygiene considerations</b>	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

## 9. Physical & Chemical Properties

<b>Appearance</b>	Clear.
<b>Colour</b>	Colourless

Form	Liquid
Odour	Neutral
Odour threshold	Not available
Physical state	Liquid
pH	1
Melting point	Not available
Freezing point	Not available
Boiling point	Not available
Flash point	Not available
Evaporation Rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability Limits in Air, Upper, % by Volume	Not available
Vapour pressure	Not available
Vapour density	Not available
Specific gravity	Not available
Octanol/water coefficient	Not available
Solubility (H2O)	Not available
Auto-ignition temperature	Not available
VOC (Weight %)	Not available
Softening point	Not available
Viscosity	Not available
Percent volatile	Not available

## 10. Chemical Stability & Reactivity Information

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Do not mix with other chemicals. Reacts violently with alkaline material. This product may react with reducing agents.
Incompatible materials	Bases. Reducing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Toxic fumes.
Possibility of hazardous reactions	Hazardous polymerisation does not occur.

## 11. Toxicological Information

### Component analysis - LC50

Ingredient(s)	LC50
Alcohols, C12-16, ethoxylated	Not available
Phosphoric acid	Not available

### Component analysis - Oral LD50

Ingredient(s)	LD50
Alcohols, C12-16, ethoxylated	1380 mg/kg rat
Phosphoric acid	1530 mg/kg rat

### Effects of acute exposure

Eye	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	Harmful if inhaled. May cause respiratory tract irritation.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Sensitisation	Non-hazardous by WHMIS criteria.
Chronic effects	Non-hazardous by WHMIS criteria.
Carcinogenicity	Non-hazardous by WHMIS criteria.
Mutagenicity	Non-hazardous by WHMIS criteria.

**Reproductive effects**  
**Teratogenicity**

Non-hazardous by WHMIS criteria.  
Non-hazardous by WHMIS criteria.

## 12. Ecological Information

### Ecotoxicity effects

Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

#### Ecotoxicity - Freshwater Fish Species Data

Phosphoric acid 7664-38-2 96 Hr LC50 Gambusia affinis: 3-3.5 mg/L

#### Ecotoxicity - Water Flea Data

Phosphoric acid 7664-38-2 12 Hr EC50 Daphnia magna: 4.6 mg/L

### Environmental effects

Not available

### Aquatic toxicity

Not available

### Persistence and degradability

Not available

### Bioaccumulation/accumulation

Not available

### Partition coefficient

Not available

### Mobility in environmental media

Not available

### Chemical fate information

Not available

## 13. Disposal Considerations

### Waste codes

Not available

### Disposal instructions

Review federal, provincial, and local government requirements prior to disposal.

### Waste from residues / unused products

Not available

### Contaminated packaging

Not available

## 14. Transport Information

### Transportation of Dangerous Goods (TDG)

#### Basic shipping requirements:

##### Proper shipping name

CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S.  
(Phosphoric acid)

##### Hazard class

8

##### UN number

UN3264

##### Packing group

III

#### Additional information:

##### Special provisions

16



## 15. Regulatory Information

### Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

#### Canada - WHMIS - Ingredient Disclosure List

Phosphoric acid 7664-38-2 1 %

### WHMIS classification

Class E - Corrosive Material

### WHMIS status

Controlled

### WHMIS labeling



A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer	Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.
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