Material Safety Data Sheet

POLINOX US

Issue Date: 20/2/2009

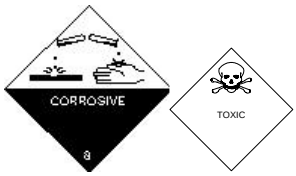
STATEMENT OF IDENTIFICATION:

HAZARDOUS ACCORDING TO CRITERIA OF AUSTRALIAN SAFETY AND COMPENSATION COUNCIL (ASCC)
DANGEROUS ACCORDING TO THE CRITERIA OF THE AUSTRALIAN DANGEROUS GOODS CODE

SUPPLIER DETAILS:

Name	:	MME Surface Finishing (Victoria) Pty Ltd
Address	:	6 – 8 Curie Court, Seaford VIC 3198
Telephone	:	(03) 9775 1620
Fax	:	(03) 9775 0034
Email	:	admin@mme.com.au

PRODUCT DETAILS

Other names	:	Corrosive liquid, Toxic, N.O.S. Containing: Hydrofluoric Acid 0-0.99% Phosphoric Acid 1-15%
UN number	:	2922
Dangerous goods class	:	8 (6.1) 
Packing group	:	III
Hazchem code	:	2XE
Poisons schedule number	:	S6
Use	:	Metal treatment. Pickling and cleaning gel

PHYSICAL DESCRIPTION AND PROPERTIES:

Appearance	:	White gel
Odour		Pungent
Viscosity	:	(1 dynamic) @ 20°C: 4500-6500mPa.s.
Boiling point	:	N/A
Melting point	:	N/A
Vapour pressure (kpa)	:	0.2 @ 20°C
Specific gravity	:	1.7 - 1.9 (Heavier than water)
Flash point	:	N/A
Lower explosive limit	:	N/A
Upper explosive limit	:	N/A
Solubility in water	:	Miscible

INGREDIENTS:

NAME		CAS NO.		PROPORTION
Phosphoric acid	:	7664-38-2	:	1-15%
Hydrofluoric acid	:	7664-39-3	:	0-0.99%
Water	:	7732-18-5	:	50-70%

HEALTH

ACUTE (IMMEDIATE OR WITHIN 14 DAYS)

Swallowed: (Oral)
- Unlikely route of entry
- Corrosive to the gastrointestinal tract
- Extreme discomfort
- Pain and vomiting

Eye:
- Corneal injury
- Corrosive
- Conjunctivitis
- Impairment of vision

Skin: (Dermal)
- Corrosive to the skin (both acids)
- Severe burns and ulceration (both acids)
- Absorbed by skin (hydrofluoric acid)
- Necrosis of the soft tissues and decalcification of bone(hydrofluoric acid)
- Extreme pain (probably not immediate when bone affected-hydrofluoric acid)
- Chronic dermatitis after prolonged or repeated exposure (both acids)

Inhalation:
- Harmful by inhalation
- Increased risk if inhaled at higher temperature
- Discomforting
- Response may be delayed with symptoms only appearing many hours later
- Coughing, wheezing, laryngitis, shortness of breath, headache, nausea

CHRONIC (LONGER TERM)

- Prolonged exposure may have a corrosive effect on human tissue

HEALTH (cont…)

FIRST AID (ONLY IF SAFE FOR YOU TO DO SO!)

MEDICAL ATTENTION REQUIRED FOR ALL EXPOSURES

Swallowed: (Oral)
- Rinse mouth with plenty of water
- DO NOT induce vomiting (can go into lungs)

Eye:
- Hold eyes open
- Ensure complete irrigation of the eye by keeping the eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids

Skin: (Dermal)
- Immediately remove contaminated clothing
- Avoid contamination
- Flush skin with water for fifteen (15) minutes

Inhalation:
- Commence CPR if indicated and if trained
- Provide oxygen if trained

ADVICE TO DOCTOR

Acute or short term exposure to strong acids
- Airway problems may arise from laryngeal oedema and inhalation exposure. Treat with 100% oxygen initially
- Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling
- Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise
- Strong acids produce a coagulation necrosis characterised by formation of coagulum (eschar) as a result of the desiccating action of the acids on proteins in specific tissues

INGESTION
- Immediate dilution (milk or water) within 30 minutes post ingestion is recommended
- DO NOT attempt to neutralise the acid since exothermic reaction may extend the corrosive injury
- Be careful to avoid further vomit since re-exposure of the mucosa to the acid is harmful. Limit fluids to one to one or two glasses in an adult
- Charcoal has no place in acid management
- Some authors suggest the use of lavage within 1 hour of ingestion

SKIN
- Skin lesions require copious saline irrigation. Treat chemical burns as thermal burns with non-adherent gauze and wrapping
- Deep second degree burns may benefit from topical silver sulfadiazine

EYE
- Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjunctival cul-de-sacs. Irrigation should last at least 20-30 minutes
- DO NOT use neutralising agents or any other additives. Several litres of saline are required
- Cycloplegic drops (1% cyclopentolate for short term use or 5% homatropine for longer term use) antibiotic drops, vasoconstrictive agents or artificial tears may be indicated dependent on the severity of the injury
- Steroid eye drops should only be administered with the approval of a consulting ophthalmologist

AUSTRALIAN POISONS INFORMATION CENTRE
24 HOUR SERVICE 13 11 26

NEW ZEALAND POISONS INFORMATION CENTRE
24 HOUR SERVICE (03) 474 7000

HEALTH (cont...)

EXPOSURE STANDARDS

- None assigned for mixture (but this MSDS considers the data for constituents and provides recommended risk controls to that state of knowledge)

CONSTITUENT DATA

PHOSPHORIC ACID

TWA : 1 mg/m^3
STEL : 3 mg/m^3

HYDROFLUORIC ACID (very low percentage (%) in this product)

PHOSPHORIC ACID

Risk Phrases T+ Very toxic

R8 : Contact with combustible material may cause fire
R34 : Causes burns
R35 : Causes severe burns

Safety Phrases

S1 : Keep locked up
S2 : Keep out of the reach of children
S23 : Do not breath vapour
S26 : In case of contact with eyes, rinse immediately with plenty of soap-suds
S36 : Wear suitable protective clothing
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label whenever possible)

PRECAUTIONS FOR USE

ENGINEERING CONTROLS * IMPORTANT NOTE

- Use in a well-ventilated area
- General exhaust is adequate in open areas
- Local exhaust ventilation must be provided in enclosed spaces and when exposure standards are likely to be exceeded
- Safety shower / eyewash to ***ANSI Z 358.1*** are to be provided when reasonably practicable otherwise water is to be provided at the job site

PERSONAL PROTECTION

Eye protection:
- Safety glasses with side shields or
- Chemical goggles or
- Full face shield or
- Contact lenses may concentrate irritant

Gloves:
- Nitrile rubber elbow length PVC gloves

Clothing:
- Overalls
- PVC Apron
- Industrial safety footwear (Rubber or PVC gumboot for large quantities)
- Ensure there is ready access to safety shower / eyewash unit

Respiration:
Where exposure is likely to exceed exposure standards the use of a respirator complying with *AS/NZS 1715: Selection, Use and Maintenance of Respiratory Protective Devices* and *AS/NZS 1716: Respiratory Protective Devices* is needed – The level of exposure must be identified during Job Safety Analysis (JSA) when planning the task to be undertaken.

Inhalation:
- Mouth mask (inorganic) or
- Half face respirator or
- Full face respirator or
- Air supplied mask or
- SCBA

SAFE HANDLING

STORAGE AND TRANSPORT

Suitable containers:

- Polyethylene or polypropylene containers

Storage incompatibility:

- Avoid storage with glass, cement, concrete and other silicon materials. The reactions produce toxic silicon tetrafluoride gas, which may rupture containers
- Do not use unlined steel containers
- Do not use aluminium, galvanised or tin-plated containers.
- Segregate from alkalis, oxidising agents

Storage requirements:

- Keep containers securely sealed
- Store in a cool, dry and well-ventilated area
- Floors should be covered or coated with aid resistant material
- Do not stack on wooden pallets
- Do not store in pits, depressions, basements or areas where vapour may be trapped

Transportation: (Australian Dangerous Goods code)

Class 8 – Corrosives shall not be loaded in the same vehicle or packed in the same freight container with:

Class 1	-	Explosives
Class 4.3	-	Dangerous when wet
Class 5.1	-	Oxidising agents
Class 5.2	-	Organic peroxides
Class 6	-	Toxic substances (where the toxic substances are cyanides and the corrosives are acids)
Class 7	-	Radioactive substances

Food and food packaging in any quantity

SPILLS AND DISPOSAL

Minor Spills:

- Slippery when spilt
- Wear Personal Protective Equipment (PPE)
- Use soda ash or slaked lime to neutralise
- Place spilled material in sealed and labelled containers
- Flush spill area with water
- Contain
- Area will be slippery

Major Spills:

- Wear full chemical suit with SCBA
- Isolate area
- Immediately prevent spillage from entering drains or water sources
- Use soda ash or slaked lime to neutralise
- Collect solid residues and seal in labelled drums for disposal
- Wash area and prevent run off into drains

Disposal:

- Consult State Land Waste Management Authority for disposal
- Treat and neutralise at an effluent treatment plant if possible

SAFE HANDLING (cont...)

FIRE

Extinguishing media	• Full chemical suit may be required • Water spray or fog • Foam • Dry chemical powder • CO_2
Fire Fighting:	• Use spray to control fire and cool adjacent area • Do not approach containers suspected to be hot • Decontaminate after incident
Fire / Explosion Hazard: (Decomposition)	• Acids will react with metals to produce hydrogen • Heating may cause expansion or decomposition leading to violent rupture of containers • Decomposes on heating and may produce toxic fumes of carbon monoxide (CO) • May emit acrid smoke and may emit corrosive fumes • Other decomposition products include carbon dioxide (CO_2), hydrogen fluoride and nitrogen oxides (NOx)
Incompatibility / Reactivity:	• Organic materials / compounds, powdered metals, reducing agents and hydrogen (H_2S) • Reacts with mild steel, galvanised steel / zinc producing flammable hydrogen gas

ECOLOGICAL INFORMATION

- Avoid contamination of waterways, drains, open water or sub-soil

CONTACT POINT

For information concerning details on this Safety Data Sheet, MME Surface Finishing (Vic) Pty. Ltd. 4-8 Curie Court, Seaford, Vic. 3198. Tel: 03 9775 1620 Fax: 03 9775 0034

All reasonable care has been taken to ensure that the information and advice contained herein is accurate at the time of printing. However, MME Surface Finishing (Vic) Pty. Ltd. accepts no tortious or contractual liability for any loss or damages suffered as a consequence of reliance on the information and advice contained herein.

Note:

This MSDS is derived from EU / USA and other Material Safety Data Sheets and is formatted generally in accordance with the Australian Safety and Compensation Council (ASCC) Guidelines. Modifications are not made to technical data except where terminology is unclear or additional information is required to satisfy Australian Standards

END OF MSDS