Industrial Cleansers Pty Ltd

ABN 076 086 404 800

MATERIAL SAFETY DATA SHEET

Section 1. **Product and Supplier Identification**

Product Name : **SULPHURIC ACID 50%**

Other Names :

Use : **Metal Treatment** pH Control Agent

Supplier : Industrial Cleansers Pty Ltd

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Telephone : (07) 3265 6311 International +61+7+3265 6311
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Emergency : 0417 720 832

Section 2. **Hazard Identification**

Hazard Statement This product is classified as **hazardous** according to the criteria of Workplace Australia

Product is classed as a Dangerous Good within the definition of the Australian Dangerous Goods Code.

Risk Phrases : **R26/27/28 R35 R41 R43 R65 R66**
Very Toxic by inhalation, in contact with skin or if swallowed
Causes severe burns. Risk of serious damage to eyes.
May cause sensitisation by skin contact. Harmful : May cause lung damage if Swallowed. Repeated exposure may cause skin drying or cracking.

Safety Phrases: **S1 S2 S7 S9 S13 S23/24/25 S26 S36/37 S46 S53**
Keep locked up. Keep out of reach of children. Keep container tightly closed. Keep container in a well ventilated place. Keep away from food, drink and animal foodstuffs. Do not breathe vapour. Avoid contact with skin and eyes. In case of Contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing. Wear gloves. If swallowed seek medical advice immediately and show this container or label. Avoid exposure—obtain special Instructions before use.

Section 3. **Composition / Information on Ingredients**

This composition is classed as a **mixture** of the following ingredients :

Component Name	CAS #	%
Sulphuric Acid		30—60
Corrosion Inhibitor (Proprietary)		< 1
Water	7732-18-5	> 50
Other ingredients determined as non-hazardous		To 100%

Section 4. First Aid Measures

SWALLOWED
IMMEDIATE MEDICAL ATTENTION IS REQUIRED.
If poisoning occurs, contact a doctor or Poisons Information Centre. If swallowed, do NOT induce vomiting. To slow adsorption of the fluoride ion a glass of water containing 1 tablespoon of chalk powder should be given to the patient to drink.

EYE
DO NOT delay. If this product or its vapours come in contact with the eyes,
1: DO NOT DELAY: Immediately irrigate continuously by holding the eyes open and washing with fresh running water.
2: Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids
3: Irrigate for at least 15 minutes.
4: Transport to hospital or eye clinic or eye specialist, ophthalmologist without delay.

SKIN
DO NOT delay. If there is evidence of severe skin irritation or skin burns:
1: Avoid further contact, strip off contaminated clothing, including footwear.
2: Wash affected parts continuously with copious amounts of running water for at least one minute.
3: Transport to hospital, or doctor, urgently.

INHALED
1: If fumes or combustion products are inhaled: Remove to fresh air.
2: Lay patient down. Keep warm and rested.
3: If breathing is shallow or has stopped, ensure clear airway and apply resuscitation, preferably with a demand valve resuscitator, bag-valve Mask device, or pocket mask as trained. Perform CPR if necessary.
4: Transport to hospital, or doctor, urgently.

ADVICE TO DOCTOR

Treat for corrosive product exposure. Treat symptomatically.

Note that expose to Nitrogen Dioxide, a potential break-down product of this material, can cause pulmonary edema. Monitoring of blood gases should be a minimum requisite in suspected cases of inhalation poisoning.

Section 5. Firefighting Measures

Not flammable / combustible.

Packaging material may, however, add to combustible load in the event of a fire.

Product / packaging should be cooled via the use of fog, water jet or foam.

Section 6. Accidental Release Measures

MINOR SPILLS

1: Clean up all spills immediately.
2: Avoid breathing vapours and contact with skin and eyes.
3: Control personal contact by using protective equipment.
4: Contain and absorb spill with sand, earth, inert material or vermiculite.
5: Wipe up.
6: Place in a suitable labeled container for waste disposal.

MAJOR SPILLS

1: Clear area of personnel and move upwind.
2: Alert Fire Brigade and tell them location and nature of hazard.
3: Wear full body protective clothing with breathing apparatus.
4: Prevent, by any means available, spillage from entering drains or water course.
5: Stop leak if safe to do so.
6: Contain spill with sand, earth or vermiculite.
7: Collect recoverable product into labelled containers for recycling.
8: Neutralise/decontaminate residue.
9: Collect solid residues and seal in labelled drums for disposal.
10:Wash area and prevent runoff into drains.
11:After clean up operations, decontaminate and launder all protective clothing and equipment before storing and re-using.
12:If contamination of drains or waterways occurs, advise emergency services.

DISPOSAL

1: Recycle wherever possible or consult manufacturer for recycling options.
2: Consult State Land Waste Management Authority for disposal.
3: Treat and neutralise with slaked lime at an effluent treatment plant.
4: Recycle containers, otherwise dispose of in an authorised landfill.

Section 7. Handling and Storage

SUITABLE CONTAINER
Plastic pail, Polyliner drum
Packing as recommended by manufacturer. Check all containers are clearly labelled and free from leaks.

STORAGE INCOMPATIBILITY
DO NOT use aluminium, galvanised or tin-plated containers.

STORAGE REQUIREMENT
Store in original containers. Keep containers securely sealed when not in use. Store in a cool, dry, well-ventilated area. Store away from incompatible materials and foodstuff containers. Protect containers against physical damage and check regularly for leaks. Observe manufacturer's storing and handling recommendations.

Section 8. Exposure Controls / Personal Protection

ENGINEERING CONTROLS

None required when handling small quantities. OTHERWISE: Use in a well ventilated area. General exhaust is adequate under normal operating conditions.

EXPOSURE LIMITS

None assigned. Refer to individual constituents.

SULPHURIC ACID

ES TWA: 2.5 mg/m3
TLV TWA: 2.5 mg/m3
OES TWA: 2.5 mg/m3
IDLH Level: 500 mg/m3

There is also support for the proposition that occupational exposure
below the TLV will have no adverse effect on pregnant women or off-spring.
IARC has classified fluorides in drinking water as Group 3 carcinogens;
i.e. Not classifiable as to its carcinogenicity to humans.

Based on controlled inhalation studies the TLV-TWA is thought to be protective against the significant risk of pulmonary irritation and incorporates a margin of safety . Experimental evidence in normal unacclimated humans indicates the recognition, by all subjects, of odour, taste or irritation at 3 mg/m3
or 5 mg/m3. All subjects reported these levels to be objectionable but to varying degrees.

NOTE: Limits shown for guidance only. Follow applicable regulations.

PERSONAL PROTECTION

EYE
When handling concentrate— safety glasses with side shields. Contact lenses pose a special hazard; soft lenses may absorb irritants and all lenses concentrate them.

HANDS/FEET
Polyethylene gloves or PVC gloves or Rubber Gloves. Safety footwear.

OTHER
General clothing (long sleeve / long pants) will provide adequate protection - or Rubber apron or Plastic apron. Ensure that there is ready access to eye wash unit. Ensure there is ready access to an emergency shower.

Section 9. Physical and Chemical Properties

APPEARANCE:	Clear water like consistency
Physical State:	Liquid
Colour:	Water white to slightly yellow
Odour:	Acrid, acid odour
Odour Threshold (ppm):	n/d
pH:	Undiluted < 1.0
Boiling Point (°C):	100 °
Melting Point (°C):	0°
Flash Point (°C):	Non flammable
Flammability:	n/a
Auto Flammability:	n/a
Explosive Properties:	n/a
Oxidizing Properties:	n/a
Vapour Pressure(mmHg):	as for water
Vapour Density:	as for water
Specific Gravity:	1.40 - 1.45
Evaporation Rate:	n/d
Solubility in Water:	Miscible
Partition Coefficient:	n/a
Viscosity @ 40 °C, cSt:	n/d
Viscosity @ 100 °C, cSt:	n/d
Pour Point (°C):	n/d

Note: **n/a = not applicable**
n/d = not determined

For further technical information please contact Industrial Cleansers Pty. Ltd. Technical group.

Section 10. Stability and Reactivity

Stability (Thermal, Light, Etc)	Stable
Conditions to Avoid	Heat, flames
Incompatible with	Alkalis, reducing agents, metals
Decomposition Products	Limited evolution of sulphur oxides
Self-Polymerisation	Does not occur

Section 11. Toxicological Information

Acute Health Effects

SWALLOWED

The liquid is corrosive and harmful if swallowed and is
capable of causing burns to mouth, throat, oesophagus, with extreme discomfort, pain.
Considered an unlikely route of entry in commercial/industrial environments.

EYE

The liquid is corrosive to the eyes and is capable of causing severe damage with loss of sight. The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis.

SKIN

The liquid is corrosive to the skin and is capable of causing burns.
Symptoms of exposure may be delayed. Healing is delayed and necrotic changes may continue to occur and spread beneath a layer of tough coagulated skin. The material may cause skin irritation after prolonged or repeated exposure and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) and swelling (oedema) which may progress to vesiculation, scaling and thickening of the epidermis. Histologically there may be intercellular oedema of the spongy layer (spongiosis) and intracellular oedema of the epidermis.

INHALED

The vapour is discomforting to the upper respiratory tract.
Inhalation hazard is increased at higher temperatures. The mist is corrosive to the upper respiratory tract and may cause burns and breathing difficulty. Exposure to high concentrations causes bronchitis and is characterised by the onset of haemorrhagic pulmonary oedema. The material may produce respiratory tract irritation which produces an inflammatory response involving the recruitment and activation of many cell types, mainly derived from the vascular system. Unlike most organs the lung can respond to a chemical insult or agent by first trying to remove or neutralise the irritant and then repairing the damage. The repair process, which initially developed to protect mammalian lungs from foreign matter and antigens, may however, cause further damage the lungs when activated by hazardous chemicals. The result is often the impairment of gas exchange, the primary function of the lungs.

CHRONIC HEALTH EFFECTS

Principal routes of exposure are by accidental skin and eye contact and
by inhalation of vapours especially at higher temperatures. As with any chemical product, contact with unprotected bare skin; inhalation of vapour, mist or dust in work place atmosphere; or ingestion in any form,
should be avoided by observing good occupational work practice.

Section 12. Ecological Information

Ecological fate of mixture has not been determined.
Product is primarily composed of inorganic acids, which would be detrimental to the environment as an acid source.
Product contains no VOC components.

Section 13. Disposal Considerations

Product should be disposed of according to local government guidelines.

Disposal of small amounts of concentrate is most easily achieved by dilution and discharge to the local sewerage treatment system. Disposal of larger amounts may require that the product be passed on to a competent chemical waste disposal authority or contractor.

Product should never be disposed of into natural watercourses or stormwater systems or directly to the environment without appropriate treatment.

Section 14. Transport Information

Product is classed as a Dangerous Good within the definition of the Australian Dangerous Goods Code.

Dangerous Goods Class 8 sub 5.1

UN # 2796 SULPHURIC ACID < 51%

Packing Group II

HAZCHEM 2P

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

Class 1	Explosives;
Class 2.3	Aerosols
Class 3	Flammable liquids
Class 4.3	Dangerous when wet substances;
Class 5.2	Organic peroxides;
Class 6	Poisonous (toxic) substances (where the poisonous substances are cyanides and the corrosives are acids);
Class 7	Radioactive substances;

Food and food packaging in any quantity.

Section 15. Regulatory Information

All components utilised in this formulation are registered with the relevant Australian Government agencies (NICNAS, NIOSH, AICS).

Section 16. Other Information

This MSDS was last reviewed on: 22 January 2006.

Date for next mandatory review : 22 January 2011.

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Disclaimer

This MSDS follows the NOHSC:2011(2003) National Code of Practice for the Preparation of Material Safety Data Sheets (2nd ed).

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End of MSDS