

# MATERIAL SAFETY DATA SHEET

## Section 1 IDENTIFICATION OF THE MATERIAL AND SUPPLIER

COMPANY Delshine Chemicals  
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BRAND NAME – De - SCALER

TRADE NAME - DE - SCALER

SHIPPING NAME ( section 14 ) PHOSPHORIC ACID MIXTURE

USE – ACIDIC DETERGENT FOR CLEANING KETTLES , DISHWASHERS AND CALCIUM BUILD UP.

**RESTRICTIONS – Incompatibilities** : A strong mineral acid, is incompatible with many substances and highly reactive with strong bases , metal oxides , hydroxides , amines , carbonates and other alkaline materials. Incompatible with materials such as cyanides , sulfides , sulfites , and formaldehyde.

**Conditions to Avoid** : Heat and direct sunlight.

## Section 2 HAZARDS CLASSIFICATION / IDENTIFICATION

**CLASSIFIED AS :**        **HAZARDOUS** – According to the criteria of NOHSC and classified as a **Dangerous Good** according to the ADG code.

UN NUMBER : 1805

**Emergency Overview** : Corrosive – May be harmful if swallowed. Causes eye and skin burns . May cause severe respiratory and digestive tract irritation with possible burns.

**Target Organs** – None

Potential Health Effects

**Eye** – May cause irreversible eye injury. Contact with liquid is corrosive to the eyes and causes severe burns.

**Skin** – Contact with liquid is corrosive and causes severe burns and ulcerations.

**Ingestion** – Causes severe pain , nausea , vomiting , diarrhoea and shock. May cause haemorrhaging of the digestive tract. May cause corrosion and permanent tissue destruction of the oesophagus and digestive tract. May be harmful if swallowed.

## CONTINUE HAZARDS CLASSIFICATION / IDENTIFICATION

**Inhalation** – Irritation may lead to chemical pneumonitis and pulmonary oedema. Causes severe irritation of upper respiratory tract with coughing, burns, breathing difficulty and possible coma.

**Chronic** – Prolonged inhalation may cause respiratory tract inflammation and lung damage. Prolonged or repeated skin contact may cause dermatitis. Prolonged or repeated eye contact may cause conjunctivitis.

### RISK PHRASES :

R 34 Causes burns  
R 37 Irritating to the respiratory system

### SAFETY PHRASES:

S1/2 Keep locked up and out of reach of children  
S 24 / 25 Avoid contact with skin and eyes  
S 26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.  
S36/37/39 Wear suitable protective clothing, gloves and eye / face protection  
S 45 In case of accident or you feel unwell seek medical advice immediately ( show label whenever possible )

## Section 3 COMPOSITION / INFORMATION OF INGREDIENTS

Chemical Entity:	CAS No:	Proportion (% mass)
Hydrochloric Acid	7647 – 01 -0	10 - 30
Phosphoric Acid	231 – 633 -2	< 10

## Section 4 FIRST AID MEASURES

**Eyes** – Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.

**Skin** – Immediately flush skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes. Discard contaminated clothing in a manner which limits further exposure.

**Ingestion** – DO NOT induce vomiting. If victim is conscious and alert give 2 – 4 cupfuls of milk or water. Get medical aid immediately.

**Inhalation-** Remove from exposure to fresh air immediately. If not breathing give artificial respiration. If breathing is difficult give oxygen. DO NOT use mouth to mouth respiration.

**Note to Physician** – Treat symptomatically and supportively.

**First Aid Facilities:** **Ensure an eye bath and safety shower are available and ready for use.**

## Section 5

## FIRE FIGHTING MEASURES

**FIRE** : Extreme heat or contact with metals can release flammable hydrogen gas.

**EXPLOSION** : Not considered to be an explosion hazard.

**FIRE EXTINGUISHING MEDIA** : If involved in a fire use water spray. Neutralize with soda ash or slaked lime.

**SPECIAL INFORMATION** : In the event of a fire wear full protective clothing and NIOSH – approved self contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Structural firefighter's protective clothing is ineffective for fires involving hydrochloric acid. Stay away from ends of tanks.

Cool tanks with water spray until well after fire is out.

**HAZCHEM CODE : 2R**

## Section 6

## ACCIDENTAL RELEASE MEASURES

**VENTILATE AREA OF LEAK OR SPILL** : Wear appropriate personal protective equipment as specified in section 8 . Isolate hazard area. Keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible. Neutralize with alkaline material ( Soda ash, lime ) then absorb with an inert material

( eg – vermiculite , dry sand , earth ) and place in a chemical waste container. Do not use combustible materials such as sawdust. Do not flush to sewer.

## Section 7

## HANDLING AND STORAGE

**Handling and storage** : Store in a cool dry ventilated storage area with acid resistant floors and good drainage. Protect from physical damage. Keep out of direct sunlight and away from heat , water and incompatible materials. Do not wash out containers and use it for other purpose. When diluting , the acid should always be added slowly to water and in a small amount. Never use hot water and never add water to the acid. Water added to acid can cause uncontrolled boiling and splashing. When opening metal containers use non sparking tools because of the possibility of hydrogen gas being present. Containers of this material may be hazardous when empty since they retain product residues, vapours and liquids. Observe all warnings and precautions listed for the product.

## Section 8

## EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering Controls – Facilities storing or utilizing material should be equipped with and eyewash facility and safety shower. Use adequate general or local exhaust ventilation to keep air borne concentrations below the permissible exposure limits.

NOHSC exposure standards – Phosphoric Acid – TWA 1mg/m<sup>3</sup> , STEL 3mg/m<sup>3</sup> – Hydrogen Chloride 7.5 mg/m<sup>3</sup> ( Peak limitation )

Personal Protection.

Eyes – Wear appropriate protective eyeglasses or chemical safety goggles.

Skin – Wear appropriate protective gloves to prevent skin exposure.

Clothing – Wear appropriate protective clothing to prevent skin exposure

Respirators – Wear an AS1715/1716 approved full face piece airline respirator in the positive pressure mode with emergency escape provisions.

## Section 9 PHYSICAL & CHEMICAL PROPERTIES

**APPEARANCE – Colourless**

**ODOUR - Pungent Odour**

**PH – For HCl Solutions 1.2**

**VAPOUR PRESSURE (mg Hg) 190@25°C**

**BOILING POINT °C - 100°C**

**VAPOUR DENSITY – Not available**

**FREEZING POINT °C – not available**

**SOLUBILITY – Infinite in water with slight evolution of heat**

**SPECIFIC GRAVITY – 1.1**

### ADDITIONAL INFORMATION

**Melting Point - 48°C**

## Section 10 STABILITY & REACTIVITY

Chemical Stability – stable under normal temperatures and pressures.

Conditions to Avoid – Incompatible materials , metals , excess heat.

Incompatibilities with other materials – reacts with alkalis ( bases ) to form phosphate salts and is corrosive ( especially when hot ) to many metals and alloys. Liberates explosive hydrogen gas when reacting with stainless steel ( slow )

Hazardous Decomposition – Products – Oxides of phosphorus.

Hazardous Polymerization – May occur

## Section 11 TOXICOLOGICAL INFORMATION

Inhalation rat LC50 : 3124 ppm / 1H oral rabbit LD50:900 mg/kg ( hydrochloric acid concentrated ) investigated as a tumorigen, mutagen reproductive effector.

Carcinogenicity : Hydrogen Chloride ( 7647 – 01 – 0 )Not an NTP carcinogen, IARC cat 3

Phosphoric Acid – Not listed by ACGIH , IARC , NIOSH , NTP or OSHA

## Section 12 ECOLOGICAL INFORMATION

**Environmental Fate :** When released into the soil this material is not expected to biodegrade. When released into the soil this material may leach into ground water.

**Environmental Toxicity :** This material is expected to be toxic to aquatic life.

## Section 13 DISPOSAL CONSIDERATIONS

Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to an approved waste facility. Dispose of container and unused content in accordance with federal , state and local requirements.

## Section 14 TRANSPORT INFORMATION

**UN NUMBER : 1805**

**UN PROPER SHIPPING NAME : Phosphoric Acid Mixtures**

**CLASS: 8**

**PACKING GROUP: 111**

**HAZCHEM CODE: 2R**

**Subsidiary Risk SUSDP Shedule 6**

## Section 15 REGULATORY INFORMATION

### POISONS SHEDULE ( SUSDP )

Australia Inventory of Chemical Substances : Hydrochloric acid is listed in the AICS.

**SUSDP poison Schedule** : S26 ( requires child proof lid on 5 lts or less.

**SAFETY DIRECTIONS** : Avoid contact with skin and eyes. Avoid breathing vapour or spray mist.

**FIRST AID** : For advise contact a Poisons Information Centre

( Phone Australia 131 126 ) or a doctor at once. If swallowed do not induce vomiting.

If in eyes hold eyelids apart and flush the eye continuously with running water. Continue flushing until advised to stop by poisons information centre or a doctor, or for at least 15 minutes. If skin or hair contact occurs remove contaminated clothing and flush skin and hair with running water.

**NOHSC ( Work Safe ) Classification** : Corrosive Xi irritant R34 Cause burns R37 Irritating to the respiratory system , S1 / 2 Keep locked up and out of reach of children , S24/25 Avoid contact with skin and eyes ,S26 In case of contact with eyes rinse immediately with plenty of water and seek medical advice.S36/37/39 Wear suitable protection clothing gloves and eye/face protection, S45 In case of accident or you feel unwell seek medical advise immediately .( Show label whenever possible )

## Section 16 OTHER INFORMATION

NFPA Rating : Health : 3 Flammability : 0 Reactivity : 0

**Label Precautions** : Do not get in eyes on skin or on clothing . Do not breathe vapour or mist. Use only with adequate ventilation. Wash thoroughly after handling. Store in a tightly closed container. Remove and wash contaminated clothing promptly.

**DATE OF LAST REVISION OF MATERIAL SAFETY DATA SHEET :**

**22<sup>nd</sup> November 2016**

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**AUTHORISATION FOR ISSUE** \_\_\_\_\_

**DATE**

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**Les Buss**

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