SAFETY DATA SHEET

ActivEtch Gel (Blue)

1. MATERIAL AND SUPPLY COMPANY IDENTIFICATION

Product Name:	ActivEtch Gel (Blue)
Product Codes:	DL2503 ActivEtch Gel 37% 3g (Blue), DL2512 ActivEtch Gel 37% 12g (Blue), DL2560 ActivEtch Gel 37% 60g, DL2566 ActivEtch Gel 37% 60g Starter Kit
Recommended Use:	Used to etch tooth enamel and dentine.
Contact Information:	Dentalife Australia Pty. Ltd. Factory 9/505 Maroondah Highway Ringwood, VIC, 3134, Australia Phone: +61 3 9879 1226
Emergency Telephone Number:	+61 3 9879 1226
Poisons Information Centre:	24 hour, 7 days a week in an emergency call: 13 11 26

2. HAZARD IDENTIFICATION

HAZARDOUS CHEMICAL. DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Signal Word:	Danger
Hazard Pictograms:	
Hazard Classifications:	Skin Corrosion/Irritation Category 1B, Corrosive to Metals Category 1, Serious Eye Damage/Eye Irritation Category 1, Acute Toxicity (Inhalation) Category 1, Acute Toxicity (Oral) Category 4, Chronic Aquatic Hazard Category 4
Hazard Statement:	H314 Causes severe skin burns and eye damage. H290 May be corrosive to metals. H302 Harmful if swallowed. H413 May cause long lasting harmful effects to aquatic life.

SAFETY DATA SHEET

Prevention Precautionary Statements:	P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection. P234 Keep only in original packaging. P270 Do not eat, drink or smoke when using this product. P273 Avoid release to the environment. P284 [In case of inadequate ventilation] wear respiratory protection.
Response Precautionary Statements:	P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower]. P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310 Immediately call a POISON CENTER/doctor/physician/first aider. P363 Wash contaminated clothing before reuse. P390 Absorb spillage to prevent material damage. P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor/physician/first aider if you feel unwell
Storage Precautionary Statements:	P403+P233 Store in a well-ventilated place. Keep container tightly closed. P405 Store locked up.
Disposal Precautionary Statements:	P501 Dispose of contents/container in accordance with local, regional, national, and international regulations.
Poison Schedule:	Not Applicable

DANGEROUS GOOD CLASSIFICATION

Classified as Dangerous Goods by the criteria of the "Australian Code for the Transport of Dangerous Goods by Road & Rail" and the "New Zealand NZS5433: Transport of Dangerous Goods on Land".

3. COMPOSITION INFORMATION

CHEMICAL ENTITY	CAS NO.	PROPORTION %
Phosphoric Acid	7664-38-2	35-39
Ingredients determined to be non-hazardous	-	To 100 %

4. FIRST AID MEASURES

If poisoning occurs, contact a doctor or Poisons Information Centre (Phone Australia 131 126, New Zealand 0800 764 766).

SAFETY DATA SHEET

Inhalation:	If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested. Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. Transport to hospital, or doctor.
Skin Contact:	If skin or hair contact occurs, immediately flush body and clothes with large amounts of water, using safety shower if available. Quickly remove all contaminated clothing, including footwear. Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. Transport to hospital, or doctor.
Eye Contact:	If this product comes in contact with the eyes: Immediately hold eyelids apart and flush the eye continuously with running water. 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. Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes. Transport to hospital or doctor without delay. Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Ingestion:	For advice, contact a Poisons Information Centre or a doctor at once. Urgent hospital treatment is likely to be needed. If swallowed do NOT induce vomiting. If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. Transport to hospital or doctor without delay.
Indication of any immediate medical attention:	for phosphate salts intoxication: • All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred. 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 or two glasses in an adult. 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.

SAFETY DATA SHEET

EYE:

- Eye injuries require retraction of the eyelids to ensure thorough irrigation of the conjuctival 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).

5. FIRE FIGHTING MEASURES

Extinguishing media:

There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for surrounding area

Fire incompatibility:

None known.

Hazchem Code:

2R

Fire/Explosion Hazard:

Non-combustible
Not considered to be a significant fire risk.
Acids may react with metals to produce hydrogen, a highly flammable and explosive gas. Heating may cause expansion or decomposition leading to violent rupture of containers. May emit corrosive, poisonous fumes. May emit acrid smoke.
Decomposition may produce toxic fumes of phosphorous oxides (POx)

6. ACCIDENTAL RELEASE MEASURES

Minor Spills:

Environmental hazard – contain spillage.
Clean up all spills immediately.
Avoid breathing vapours and contact with skin and eyes.
Control personal contact with the substance, by using protective equipment. Contain and absorb spill with sand, earth, inert material, or vermiculite. Wipe up. Place in a suitable, labelled container for waste disposal.
Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.
Check regularly for spills and leaks.

Large Spills:

Environmental hazard – contain spillage.

- Clear area of personnel and move upwind.
- Alert Fire Brigade and tell them location and nature of hazard. Wear breathing apparatus plus protective gloves

SAFETY DATA SHEET

- Prevent, by any means available, spillage from entering drains or water course. Stop leak if safe to do so.
- Contain spill with sand, earth, or vermiculite.
- Collect recoverable product into labelled containers for recycling. Neutralise/decontaminate residue (see Section 13 for specific agent). Collect solid residues and seal in labelled drums for disposal.
- Wash area and prevent runoff into drains.
- After clean-up operations, decontaminate and launder all protective clothing and equipment before storing and re-using. If contamination of drains or waterways occurs, advise emergency services

7. HANDLING AND STORAGE

Handling:

Avoid all personal contact, including inhalation.
Wear protective clothing when risk of exposure occurs.
Use in a well-ventilated area.
Prevent concentration in hollows and sumps.
DO NOT enter confined spaces until atmosphere has been checked.
DO NOT allow material to contact humans, exposed food or food utensils.
Avoid contact with incompatible materials. When handling, DO NOT eat, drink or smoke.
Keep containers securely sealed when not in use. Avoid physical damage to containers.
Always wash hands with soap and water after handling.
Work clothes should be laundered separately. Launder contaminated clothing before re-use.
Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS.
Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.

Other information:

Store in original containers.
Keep containers securely sealed.
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 storage and handling recommendations contained within this SDS.

Suitable Container:

- Check regularly for spills and leaks

Where combination packages are used, and the inner packages are of glass, porcelain or stoneware, there must be sufficient inert cushioning material in contact with inner and outer packages unless the outer

SAFETY DATA SHEET

packaging is a close-fitting moulded plastic box and the substances are not incompatible with the plastic.

Storage incompatibility:

Phosphoric acid:

- Acids often catalyse (increase the rate of) chemical reactions.
- Reacts vigorously with alkalis
- Phosphates are incompatible with oxidising and reducing agents. Phosphates are susceptible to formation of highly toxic and flammable phosphine gas in the presence of strong reducing agents such as hydrides.
- Partial oxidation of phosphates by oxidizing agents may result in the release of toxic phosphorus oxides.

X — *Must not be stored together*
0 — *May be stored together with specific preventions*
\+ — *May be stored together*

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Australia Exposure Standards:

Phosphoric acid, TWA 1mg/m3, STEL 3mg/m3

Biological Limit Values:

As per the "National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia)" the ingredients in this material do not have a Biological Limit Allocated.

Engineering Controls:

Ensure ventilation is adequate to maintain air concentrations below exposure standards. Use only in well ventilated areas. Avoid generating and inhaling vapours. Use with local exhaust ventilation or while wearing a respirator.

Personal Protection Equipment:

SAFETY DATA SHEET

Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure.
Chemical goggles, whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted.
Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection.
Alternatively a gas mask may replace splash goggles and face shields.
Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59], [AS/NZS 1336 or national equivalent]
Hand protection: Wear Elbow length PVC gloves

Other Protection:	Overalls, P.V.C, apron, barrier cream, skin cleansing cream, eye wash unit, ensure there is ready access to a safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Gel
Colour:	Blue
Odour:	Characteristic
Solubility:	Miscible with water
Specific gravity:	1.3 g/mL
Relative Vapor Density (water=1)	<1
Vapour Pressure (20 °C):	2.3
Flash Point (°C):	Not available
Flammability Limits (%):	Not available
Autoignition Temperature (°C):	Not available
Melting Point/Range (°C):	Approx. 0
Boiling Point/Range (°C):	Approx. 100

pH:	Not available
Viscosity:	Not available
Total VOC (g/Litre):	Not available

10. STABILITY AND REACTIVITY

Chemical Stability:	Contact with alkaline material liberates heat.
Conditions to Avoid:	Elevated temperatures and sources of ignition. See section 7
Incompatible Materials:	Bases and metals. See section 7
Hazardous Decomposition Products:	Oxide of carbon and phosphorus. See section 5
Hazardous Reactions:	Corrosive to metals. See section 7

11. TOXICOLOGICAL INFORMATION

Inhalation:	Evidence shows, or practical experience predicts, that the material produces irritation of the respiratory system, in a substantial number of individuals, following inhalation.. Symptoms of exposure may include dizziness, headache, nausea and weakness.
Skin Contact:	Skin contact with acidic corrosives may result in pain and burns; these may be deep with distinct edges and may heal slowly with the formation of scar tissue. Open cuts, abraded or irritated skin should not be exposed to this material. Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Ingestion:	Accidental ingestion of the material may be harmful; animal experiments indicate that ingestion of less than 150 gram may be fatal or may produce serious damage to the health of the individual. Ingestion of acidic corrosives may produce circumoral burns with a distinct discolouration of the mucous membranes of the mouth, throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident.
Eye Contact:	Direct eye contact with acid corrosives may produce pain, lachrymation, photophobia and burns. Mild burns of the epithelia generally recover rapidly and completely. Severe burns produce long-lasting and possible irreversible damage. The appearance of the burn may not be apparent for several weeks after the initial contact. The cornea may ultimately become deeply vascularised and opaque resulting in blindness. When applied to the eye(s) of animals, the material produces severe ocular

lesions which are present twenty-four hours or more after instillation. Irritation of the eyes may produce a heavy secretion of tears (lachrymation).

Chronic: Long-term exposure to respiratory irritants may result in disease of the airways involving difficult breathing and related systemic problems. Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems. Dogs given daily doses of sodium phosphate dibasic for 9-22 weeks showed calcium deposits in the kidneys (nephrocalcinosis) with disseminated atrophy of the proximal tubule. Animals fed on sodium phosphate dibasic and potassium dihydrogen phosphate, in both short- and long-term studies, showed increased bone porosity; hyperparathyroidism and soft tissue calcification were also evident.

Toxicity:

Halas Acid Etch Gel: Not available

Phosphoric acid:
Dermal (rabbit) LD50: >1260 mg/kg
Inhalation(Rat) LC50; 0.026 mg/L4h
Oral(Rat) LD50; >300

Phosphoric Acid: (Irritation)
Eye (rabbit): 119 mg – SEVERE
Eye: adverse effect observed (irritating)
Skin (rabbit):595 mg/24h – SEVERE
Skin: adverse effect observed (corrosive)

Acute Toxicity: Acute toxicity estimate (based on ingredients): LC50 > 5 mg/L

Serious eye damage/irritation: Expected to produce serious eye damage/irritation

Respiratory or Skin Sensitisation: Data either not available or does not fill the criteria for classification

Carcinogenicity: Not considered to be carcinogenic.

Reproductivity: Not considered to be toxic to reproduction.

12. ECOLOGICAL INFORMATION

Ecotoxicity: No information available

Persistence and Degradability: Water/soil/air: HIGH

Bioaccumulation Potential: LOW (LogKOW = -0.7699)

Mobility: HIGH (KOC = 1)

DO NOT discharge into sewer or waterways.

SAFETY DATA SHEET

13. DISPOSAL CONSIDERATIONS

Disposal Method:	Dispose of in accordance with all local, state and federal regulations. All empty packaging should be disposed of in accordance with Local, State, and Federal Regulations or recycled/reconditioned at an approved facility.
Disposal of Contaminated Packaging:	Recycle /reconditioned at an approved facility.
Environmental Regulations:	Not relevant

14. TRANSPORT INFORMATION

UN Proper Shipping Name: Phosphoric acid, Solution

Land Transport (ADG):

U.N. Number:	1805	Dangerous Goods Class:	8
Hazchem Code:	2R	Subsidiary Risk:	Not Applicable
CAS Number:	See ingredients	Pack. Group:	III
Environmental Hazard:	Not Applicable		

Air Transport (ICAO-IATA / DGR):

U.N. Number:	1805	Dangerous Goods Class:	8
Hazchem Code:	2R	Subsidiary Risk:	Not Applicable
CAS Number:	See ingredients	Pack. Group:	III
Environmental Hazard:	Not Applicable		

Sea Transport (IMDG-Code / GGVSee):

U.N. Number:	1805	Dangerous Goods Class:	8
Hazchem Code:	2R	Subsidiary Risk:	Not Applicable
CAS Number:	See ingredients	Pack. Group:	III
Environmental Hazard:	Not Applicable		

SAFETY DATA SHEET

15. REGULATORY INFORMATION

Regulatory Information:	Phosphoric acid is found on the following regulatory lists • Australian Hazardous Chemical Information System (HCIS) – Hazardous Chemicals • Australian Standard fr the Uniform Scheduling of Medicines and Poisons (SUSMP) – Schedule 5 • Australian Inventory of Industrial Chemicals (AIIC)
This material is not subject to the following international agreements:	Montreal Protocol (Ozone depleting substances) The Stockholm Convention (Persistent Organic Pollutants) The Rotterdam Convention (Prior Informed Consent) International Convention for the Prevention of Pollution from Ships (MARPOL)
This material is subject to the following international agreements:	Basel Convention (Hazardous Waste) • Acidic solutions or acids in solid form This product complies under ARTG No: 160312.

16. OTHER INFORMATION

Product is considered safe if used as intended.
Product is intended for professional dental/medical use only.

This information was prepared in good faith from the best information available at the time of issue. It is based on the present level of research and to this extent we believe it is accurate. However, no guarantee of accuracy is made or implied and since conditions of use are beyond our control, all information relevant to usage is offered without warranty. The manufacturer will not be held responsible for any unauthorised use of this information or for any modified or altered versions.

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