

SDS No: 787 Version: V.0.0.2

TelChem PHOSKLEEN 40

Telford Industries

Safety Data Sheet according to WHS and ADG requirements

SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

Product Identifier

Product name	TelChem Phoskleen 40
Chemical Name	Not Available
Synonyms	Not Available
Proper shipping name	PHOSPHORIC ACID SOLUTION
Chemical formula	Not Available
Other means of identification	Not Available

Relevant identified uses of the substance or mixture and uses advised against

Relevant Identified Uses	Phoskleen 40 is a liquid acid for the removal of rust and light soils from steel surfaces.
	It can also be used as a metal conditioner to prepare steel, zinc and aluminium alloy surfaces for painting.

Details of the supplier of the safety data sheet

Company Name	Telford Industries
Address	7 Valentine Street Kewdale WA 6105 Australia
Telephone	+61 8 9353 2053
Website	https://www.telfordindustries.com.au/
Email	info@telfordindustries.com.au

Emergency telephone number

Association/Organisation	Not Available
Emergency telephone numbers	1800 429 628
Other Emergency telephone numbers	1800 HAZMAT

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

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

Poisons Schedule	S6
Classification Metal Corrosion Category 1, Skin Corrosion/Irritation Category 1B, Serious Eye Damage Category	
Label Elements	

Label Elements

GHS label elements	
SIGNAL WORD	DANGER



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Hazard statement(s)

H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

Precautionary statement(s) Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.	
P280	Wear protective gloves/protective clothing/eye protection/face protection.	
P264	Wash hands thoroughly after handling.	
P234	Keep only in original container.	

Precautionary statement(s) Response

P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.	
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.	
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.	
P321	Specific treatment (see First Aid Measures on Safety Data Sheet).	
P301+P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.	
P310	Immediately call a POISON CENTER or doctor/physician.	
P363	Wash contaminated clothing before reuse.	
P390	Absorb spillage to prevent material damage.	
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.	

Precautionary statement(s) Storage

P405	Store locked up.
P406	Store in corrosive resistant container with a resistant inner liner.

Precautionary statement(s) Disposal

P501	Dispose of contents/container in accordance with local regulations.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

CAS No	% [weight]	Name
7664-38-2	>40	phosphoric acid
	<5	Non Hazardous Chemicals
	balance	water

SECTION 4 FIRST AID MEASURES

Description of first aid measures

	If this product comes in contact with the eyes:
Eye Contact	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



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	minutes.				
	Transport to hospital or doctor without delay.				
	Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.				
	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.				
Skin Contact	> 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.				
	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				
Inhalation	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, without delay.				
	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.				
Ingestion	Observe the patient carefully.				
5	> 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 and special treatment needed

Treat symptomatically.

For acute or short term repeated exposures to strong acids:

- > Airway problems may arise from laryngeal edema 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 a coagulum (eschar) as a result of the desiccating action of the acid 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 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 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).

[Ellenhorn and Barceloux: Medical Toxicology]

SECTION 5 FIREFIGHTING MEASURES

Extinguishing Media

- (fine) Water spray or fog
- Foam
- > Dry agents (Carbon dioxide/Dry chemical powder)



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Special hazards arising from the substrate or mixture

Fire Incompatibility	None known.
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Advice for firefighters

	Alert Fire Brigade and tell them location and nature of hazard.
	May be violently or explosively reactive.
	> Wear full body protective clothing with breathing apparatus.
	Prevent, by any means available, spillage from entering drains or water course.
	 Consider evacuation (or protect in place).
Fire Fighting	> Use water delivered as a fine spray to control fire and cool adjacent area.
	Avoid spraying water onto liquid pools.
	> Do not approach containers suspected to be hot.
	Cool fire exposed containers with water spray from a protected location.
	If safe to do so, remove containers from path of fire.
	Equipment should be thoroughly decontaminated after use.
	> Non combustible.
	Not considered to be a significant fire risk.
Fire/Explosion Hazard	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.
HAZCHEM	2R

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

	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.
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Minor Spills	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.
	Clear area of personnel and move upwind.
	Alert Fire Brigade and tell them location and nature of hazard.
	May be violently or explosively reactive.
	Wear full body protective clothing with breathing apparatus.
	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.
Major Spills	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.

Personal Protective Equipment advice is contained in Section 8 of the SDS.



SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

	DO NOT allow clothing wet with material to stay in contact with skin
	Avoid all personal contact, including inhalation.
	Wear protective clothing when risk of exposure occurs.
	> WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.
	Avoid smoking, naked lights or ignition sources.
	Avoid contact with incompatible materials.
	When handling, DO NOT eat, drink or smoke.
Safe handling	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.
	Store in original containers.
	Keep containers securely sealed.
Other Information	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.

Conditions for safe storage, including any incompatibilities

	> DO NOT use aluminium or galvanised containers
	 Check regularly for spills and leaks
	 Lined metal can, lined metal pail/ can.
	 Plastic pail.
Suitable Container	 Polyliner drum.
	 Packing as recommended by manufacturer.
	 Check all containers are clearly labelled and free from leaks.
	 Inorganic acids neutralise chemical bases (for example: amines and inorganic hydroxides) to form salts neutralisation can generate dangerously large amounts of heat in small spaces.
	The dissolution of inorganic acids in water or the dilution of their concentrated solutions with additional water may generate significant heat.
	The addition of water to inorganic acids often generates sufficient heat in the small region of mixing to cause some of the water to boil explosively. The resulting "bumping" can spatter the acid.
Storage Incompatibility	Inorganic acids react with active metals, including such structural metals as aluminum and iron, to release hydrogen, a flammable gas.
	Inorganic acids react with cyanide compounds to release gaseous hydrogen cyanide.
	Inorganic acids generate flammable and/or toxic gases in contact with dithiocarbamates, isocyanates, mercaptans, nitrides, nitriles, sulfides, and strong reducing agents.
	 Reacts vigorously with alkalis.
	 Reacts vigorously with aixans. Reacts with mild steel, galvanised steel/zinc producing hydrogen gas which may form an explosive mixture with air.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)

INGREDIENT DATA

Source	Ingredient	Material Name	TWA	STEL	Peak	Notes
Australia Exposure Standards	phosphoric acid	phosphoric acid	1 mg/m3	3 mg/m3	Not Available	Not Available

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EMERGENCY LIMITS

Ingredient	Material Name	TEEL-1	TEEL-2	TEEL-3
phosphoric acid	phosphoric acid	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
phosphoric acid	Not Available	Not Available

MATERIAL DATA

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well- designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.				
Personal Protection					
Eye and Face protection	 Safety glasses with imperforated 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. Alternatively a gas mask may replace splash goggles and face shields. 				
Skin protection	See Hand protection below				
Hands/feet protection	 Elbow length PVC gloves Wear chemical protective gloves, e.g. PVC. Wear safety footwear or safety gumboots, e.g. Rubber When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent). 				
Body protection	See Other protection below				
Other protection	 Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit. Ensure there is ready access to a safety shower. 				
Thermal hazards	Not Available				

Respiratory protection

Type B-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Colourless liquid with no odour, mixes with water				
Physical state	Liquid	Flash point (°C)	Not Applicable		
Odour	Odourless	Evaporation rate	Not Available		
Odour threshold	Not Available	Flammability	Not Applicable		
Relative density (water=1)	1.3 – 1.4	Upper Explosive Limit (%)	Not Applicable		
Colour	Colourless - Transparent	Lower Explosive Limit (%)	Not Applicable		



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pH (as supplied)	Acidic	Vapour pressure (kPa)	Not Available
Melting point/Freezing point (°C)	21	Solubility in water (g/L)	Miscible
Initial boiling point and boiling range (°C)	158	Vapour density (Air = 1)	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	Contact with alkaline material liberates heat
Possibility of hazardous reactions	See section 7
Conditions to avoid	See section 7
Incompatible materials	See section 7
Hazardous decomposition products	See section 5

SECTION 11 TOXICOLOGICAL INFORMATION

Information on toxicological effects

	Acidic corrosives produce respiratory tract irritation with coughing, choking and mucous membrane damage.	
Inhaled	Symptoms of exposure may include dizziness, headache, nausea and weakness. Exposure to high concentrations	
	causes bronchitis and is characterised by the onset of hemorrhagic pulmonary oedema.	
	Ingestion of acidic corrosives may produce circumoral burns with a distinct discolouration of the mucous membranes	
Ingestion	of the mouth, throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be	
	evident.	
	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.	
	Skin contact with the material may damage the health of the individual; systemic effects may result following	
Skin Contact	absorption. 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.	
	When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four	
_	hours or more after instillation.	
Eye	Direct eye contact with acid corrosives may produce pain, lachrymation, photophobia and burns. Mild burns of the	
	epithelia generally recover rapidly and completely.	
	Repeated or prolonged exposure to acids may result in the erosion of teeth, inflammatory and ulcerative changes in	
	the mouth and necrosis (rarely) of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial	
Chronic	pneumonia may ensue.	
	Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects	
	involving organs or biochemical systems.	

Product Name	ΤΟΧΙΟΙΤΥ	IRRITATION
phosphoric Acid	Inhalation (rabbit) LC50: 1689 mg/L/2hr ^[2]	Dermal (Rabbit): 595mg/24hr (severe skin irritation)
	Oral (rat) LD50: 1530 mg/kg ^[2]	

1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS -Register of Toxic Effect of chemical Substances

phosphoric Acid	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.
phosphoric Acid & WATER	No significant acute toxicological data identified in literature search.

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Acute Toxicity	×	Carcinogenicity	0
Skin Irritation/Corrosion	\checkmark	Reproductivity	0
Serious Eye Damage/Irritation	\checkmark	STOT – single exposure	0
Respiratory or Skin sensitisation	0	STOT – repeated exposure	0
Mutagenicity	0	Aspiration Hazard	0
Legend: X – Data available but does not fill the criteria for classification			

✓ – Data required to make classification available

 $\mathcal{O}-$ Data Not Available to make classification

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Not Available.

Ecotoxicity

Prevent, by any means available, spillage from entering drains or water courses. DO NOT discharge into sewer or waterways.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
water	LOW	LOW

Bio accumulative potential

Ingredient	Bioaccumulation
water	LOW (Log KOW = -1.38)

Mobility in Soil

Ingredient	Mobility
water	LOW (KOC = 14.3)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

	Containers may still present a chemical hazard/ danger when empty.
	Return to supplier for reuse/ recycling if possible.
	Otherwise:
	> If container can't be cleaned sufficiently well to ensure that residuals do not remain or if the container
	cannot be used to store the same product, and then puncture containers, to prevent re-use, and bury at an authorised landfill.
Product/Packaging disposal	Where possible retain label warnings and SDS and observe all notices pertaining to the product.
r roudoù aonaging alopooal	Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.
	Treat and neutralise at an approved treatment plant. Treatment should involve: Neutralisation with soda-ash or soda-lime followed by: burial in a land-fill specifically licensed to accept chemical and / or pharmaceutical wastes or Incineration in a licensed apparatus (after admixture with suitable combustible material).
	Decontaminate empty containers with 5% aqueous sodium hydroxide or soda ash, followed by water.
	Observe all label safeguards until containers are cleaned and destroyed.



SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	2R

Land transport (ADG)

UN Number	1805	
UN proper shipping name	PHOSPHORIC ACID SOLUTION	
Transact Harvard alass (as)	Class	8 Corrosive
Transport Hazard class(es)	Sub Risk	Not Applicable
Packing group	Ш	
Environmental Hazard	Not Applicable	
Special precautions for user	Special provisions	Not Applicable
	Limited quantity	1 L

Air transport (ICAO-IATA / DGR)

UN Number	1805		
UN proper shipping name	PHOSPHORIC ACID SOLUTION		
Transport Hazard class(es)	ICAO/IATA Class	8 Corrosive	
	ICAO/IATA Sub Risk	Not Applicable	
Packing group	111		
Environmental Hazard	Not Applicable		
Special precautions for user	Special provisions	A3	
	Cargo Only Packing Instructions	Not Available	
	Cargo Only Maximum Qty/Pack	Not Available	
	Passenger and Cargo Packing Instructions	852	
	Passenger and Cargo Maximum Qty/Pack	5 L	
	Passenger and Cargo Limited Quantity Packing Instructions	Y841	
	Passenger and Cargo Limited Maximum Qty / Pack	1 L	

Sea transport (IMDG-Code / GGVSee)

UN Number	1805	
UN proper shipping name	PHOSPHORIC ACID SOLUTION	
Transport Hazard class(es)	IMDG Class	8 Corrosive
	IMDG Sub Risk	Not Applicable
Packing group	III	
Environmental Hazard	Not Applicable	
Special precautions for user	EMS, Fire	F-A
	EMS, Spillage	S-B

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Transport in bulk according to Annex II of MARPOL and the IBC code

Source	Product Name	Pollution Category	Ship Type
IMO MARPOL (Annex II) – List of Noxious Liquid Substances Carried in Bulk	phosphoric acid	Z	3

SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

PHOSPHORIC ACID (7664-38-2) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Exposure Standards Australia Inventory of Chemical Substances (AICS) Australia Hazardous Substances Information System - Consolidated Lists

WATER (7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Australia Inventory of Chemical Substances (AICS)

National Inventory	Status
Australia - AICS	Υ
Canada - DSL	Υ
Canada - NDSL	N (phosphoric acid, water)
China - IECSC	Υ
Europe - EINEC / ELINCS / NLP	Ν
Japan - ENCS	Υ
Korea - KECI	Υ
New Zealand - NZIoC	Υ
Philippines - PICCS	Υ
USA - TSCA	Υ
Legend:	Y = All ingredients are on the inventory N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing(see specific ingredients in brackets)

SECTION 16 OTHER INFORMATION

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

Name	CAS No		
PC-TWA	Permissible Concentration-Time Weighted Average	PC-STEL	Permissible Concentration-Short Term Exposure Limit
IARC	International Agency for Research on Cancer	ACGIH	American Conference of Governmental Industrial Hygienists
STEL	Short Term Exposure Limit	TEEL	Temporary Emergency Exposure Limit
IDLH	Immediately Dangerous to Life or Health Concentrations	OSF	Odour Safety Factor
NOAEL	No Observed Adverse Effect Level	LOAEL	Lowest Observed Adverse Effect Level
TLV	Threshold Limit Value	LOD	Limit Of Detection
ΟΤΥ	Odour Threshold Value	BCF	BioConcentration Factors
BEI	Biological Exposure Index		