

Bulkwholesale Australia Pty Ltd	Chemwatch Hazard Alert Code: 4
Chemwatch: <b>28-2124</b>	Issue Date: <b>07/03/2020</b>
Version No: <b>4.1</b>	Print Date: <b>08/06/2022</b>
Safety Data Sheet according to WHS Regulations (Hazardous Chemicals) Amendment 2020 and ADG requirements	S.GHS.AUS.EN

## SECTION 1 Identification of the substance / mixture and of the company / undertaking

Product Identifier	
Product name	Bulk Blendz Alum Bright
Chemical Name	Not Applicable
Synonyms	Aluminium Cleaner
Proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S. (contains hydrofluoric acid)
Chemical formula	Not Applicable
Other means of identification	Not Available

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

Relevant identified uses Cleans and brightens aluminium surfaces.

#### Details of the supplier of the safety data sheet

Registered company name	Bulkwholesale Australia Pty Ltd
Address	2/7 Commercial Court, Tullamarine VIC 3043 Australia
Telephone	1300 096 435
Fax	
Website	https://www.bulkwholesale.com.au
Email	orders@bulkwholesale.com.au

#### Emergency telephone number

Association / Organisation	N.V.Chemicals(Aust) P/L	CHEMWATCH EMERGENCY RESPONSE
Emergency telephone numbers	0411 387 097	+61 1800 951 288
Other emergency telephone numbers	Not Available	+61 3 9573 3188

Once connected and if the message is not in your prefered language then please dial 01

## **SECTION 2 Hazards identification**

#### Classification of the substance or mixture

Poisons Schedule	S7
Classification <sup>[1]</sup>	Acute Toxicity (Dermal) Category 1, Acute Toxicity (Inhalation) Category 1, Skin Corrosion/Irritation Category 1A, Serious Eye Damage/Eye Irritation Category 1, Sensitisation (Skin) Category 1, Germ Cell Mutagenicity Category 2, Specific Target Organ Toxicity - Repeated Exposure Category 2, Acute Toxicity (Oral) Category 1
Legend:	1. Classified by Chernwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI

## Label elements

Hazard pictogram(s)	
Signal word	Danger

## Hazard statement(s)

H310	Fatal in contact with skin.
H330	Fatal if inhaled.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H341	Suspected of causing genetic defects.
H373	May cause damage to organs through prolonged or repeated exposure.
H300	Fatal if swallowed.

## Precautionary statement(s) Prevention

P201	Obtain special instructions before use.
P260	Do not breathe mist/vapours/spray.
P262	Do not get in eyes, on skin, or on clothing.
P264	Wash all exposed external body areas thoroughly after handling.

## Precautionary statement(s) Response

P301+P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/physician/first aider.	
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.	

## Precautionary statement(s) Storage

P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.

#### Precautionary statement(s) Disposal

P501 Dispose of contents/container to authorised hazardous or special waste collection point in accordance with any local regulation.

Not Applicable

## **SECTION 3 Composition / information on ingredients**

#### Substances

See section below for composition of Mixtures

#### Mixtures

CAS No	%[weight]	Name
7664-38-2	1-10	phosphoric acid
7664-39-3	1-10	hydrofluoric acid
Not Available	Not Spec	surfactants
7732-18-5	>60	water
Legend:	Legend: 1. Classified by Chemwatch; 2. Classification drawn from HCIS; 3. Classification drawn from Regulation (EU) No 1272/2008 - Annex VI; 4. Classification drawn from C&L * EU IOELVs available	

#### **SECTION 4 First aid measures**

Eye Contact	<ul> <li>DO NOT delay.</li> <li>If this product or its vapours come in contact with the eyes,</li> <li>DO NOT DELAY: Immediately irrigate continuously by holding the eyelids apart and washing with fresh running water.</li> <li>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</li> <li>Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.</li> <li>Transport to hospital, eye clinic or eye specialist, ophthalmologist without delay.</li> </ul>
Skin Contact	<ul> <li>DO NOT delay.</li> <li>If there is evidence of severe skin irritation or skin burns:</li> <li>Avoid further contact. Immediately remove contaminated clothing, including footwear.</li> <li>Flush skin under running water for 15 minutes.</li> <li>Avoiding contamination of the hands, massage calcium gluconate gel into affected areas, pay particular attention to creases in skin.</li> <li>Contact the Poisons Information Centre.</li> <li>Continue gel application for at least 15 minutes after burning sensation ceases.</li> <li>If pain recurs, repeat application of calcium gluconate gel or apply every 20 minutes.</li> <li>If no gel is available, continue washing for at least 15 minutes, using soap if available. If patient is conscious, give six calcium gluconate or calcium carbonate tablets in water by mouth.</li> <li>Transport to hospital, or doctor, urgently.</li> </ul>
Inhalation	<ul> <li>For massive exposures:</li> <li>If dusts, vapours, aerosols, fumes or combustion products are inhaled, remove from contaminated area.</li> <li>Lay patient down.</li> </ul>

	<ul> <li>Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>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.</li> <li>If victim is conscious, give six calcium gluconate or calcium carbonate tablets in water by mouth.</li> <li>Transport to hospital, or doctor, urgently.</li> </ul>
Ingestion	DO NOT delay.         Rinse mouth out with plenty of water.         Transport to hospital or doctor and seek immediate medical attention.         DO NOT INDUCE vomiting.         If patient is conscious, give six calcium gluconate or calcium carbonate tablets dissolved in water, by mouth.

#### Indication of any immediate medical attention and special treatment needed

Following acute or short term repeated exposure to hydrofluoric acid:

- Subcutaneous injections of Calcium Gluconate may be necessary around the burnt area. Continued application of Calcium Gluconate Gel or subcutaneous Calcium Gluconate should then continue for 3-4 days at a frequency of 4-6 times per day. If a "burning" sensation recurs, apply more frequently.
- Systemic effects of extensive hydrofluoric acid burns include renal damage, hypocalcaemia and consequent cardiac arrhythmias. Monitor haematological, respiratory, renal, cardiac and electrolyte status at least daily. Tests should include FBE, blood gases, chest X-ray, creatinine and electrolytes, urine output, Ca ions, Mg ions and phosphate ions. Continuous ECG monitoring may be required.
- Where serum calcium is low, or clinical, or ECG signs of hypocalcaemia develop, infusions of calcium gluconate, or if less serious, oral Sandocal, should be given. Hydrocortisone 500 mg in a four to six hourly infusion may help.
- Antibiotics should not be given as a routine, but only when indicated.
- Eye contact pain may be excruciating and 2-3 drops of 0.05% pentocaine hydrochloride may be instilled, followed by further irrigation

#### **BIOLOGICAL EXPOSURE INDEX - BEI**

These represent the determinants observed in specimens collected from a healthy worker exposed at the Exposure Standard (ES or TLV):

Determinant	Index	Sampling Time	Comments	
1. Methaemoglobin in blood	1.5% of haemoglobin	During or end of shift	B, NS, SQ	
B: Background levels occur in specimens collected from subjects <b>NOT</b> exposed.				

NS: Non-specific determinant; Also seen after exposure to other materials

SQ: Semi-quantitative determinant - Interpretation may be ambiguous; should be used as a screening test or confirmatory test.

#### **SECTION 5 Firefighting measures**

#### Extinguishing media

- Foam.
- Dry chemical powder.
- BCF (where regulations permit).

## Carbon dioxide.

#### Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid any contamination of this material as it is very reactive and any contamination is potentially hazardous Avoid storage with glass, cement, concrete and other silicon materials; reaction produces toxic silicon tetrafluoride gas; which may pressurise and/or rupture containers. Avoid reaction with organic materials / compounds powdered metals
	reducing agents and hydrogen sulfide (H2S) as ignition may result
	Reacts with mild steel, galvanised steel / zinc producing hydrogen gas which may form an explosive mixture with air.

#### Advice for firefighters

Fire Fighting	<ul> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear full body protective clothing with breathing apparatus.</li> <li>Consider evacuation (or protect in place).</li> <li>Use water delivered as a fine spray to control fire and cool adjacent area.</li> </ul>
Fire/Explosion Hazard	<ul> <li>Non combustible.</li> <li>Not considered to be a significant fire risk.</li> <li>Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.</li> <li>Heating may cause expansion or decomposition leading to violent rupture of containers.</li> <li>Other decomposition products include:</li> <li>carbon dioxide (CO2)</li> <li>hydrogen fluoride</li> <li>phosphorus oxides (POx)</li> </ul>
HAZCHEM	2X

#### **SECTION 6 Accidental release measures**

Personal precautions, protective equipment and emergency procedures See section 8

#### See section 12

## Methods and material for containment and cleaning up

Minor Spills	<ul> <li>DO NOT touch the spill material</li> <li>Clean up all spills immediately.</li> <li>Avoid breathing vapours and contact with skin and eyes.</li> <li>Wear impervious gloves and safety glasses.</li> <li>Use soda ash or slaked lime to neutralise.</li> <li>Trowel up/scrape up.</li> <li>Place spilled material in clean, dry, sealable, labelled container.</li> <li>Flush spill area with water.</li> </ul>
Major Spills	<ul> <li>Clear area of personnel and move upwind.</li> <li>Alert Fire Brigade and tell them location and nature of hazard.</li> <li>Wear full body protective clothing with breathing apparatus.</li> <li>Prevent, by any means available, spillage from entering drains or water course.</li> </ul>

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

## **SECTION 7 Handling and storage**

#### Precautions for safe handling

<b>U</b>	
Safe handling	<ul> <li>DO NOT allow clothing wet with material to stay in contact with skin</li> <li>Use good occupational work practice. Observe manufacturer's storage and handling recommendations contained within this SDS.</li> <li>Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.</li> <li>Avoid all personal contact, including inhalation</li> <li>Wear protective clothing when risk of exposure occurs.</li> <li>Avoid contact with incompatible materials.</li> <li>WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.</li> <li>Handle and open container with care</li> <li>When handling, DO NOT eat, drink or smoke.</li> <li>Keep containers securely sealed when not in use</li> <li>Avoid physical damage to containers.</li> <li>Wash hands with soap and water after handling.</li> <li>Work clothes should be laundered separately: NOT at home.</li> </ul>
Other information	<ul> <li>Keep containers securely sealed</li> <li>Store in a cool, dry and well-ventilated area.</li> <li>Store away from incompatible materials.</li> <li>Floors should be covered or coated with acid resistant material.</li> <li>DO NOT stack on wooden pallets.</li> <li>DO NOT store in pits, depressions, basements or areas where vapours may be trapped</li> <li>Protect containers against physical damage</li> <li>Check regularly for spills and leaks</li> </ul>

## Conditions for safe storage, including any incompatibilities

Suitable container	<ul> <li>Polyethylene or polypropylene container.</li> <li>Packing as recommended by manufacturer.</li> <li>Check all containers are clearly labelled and free from leaks.</li> </ul>
Storage incompatibility	Avoid storage with glass, cement, concrete and other silicon materials; reaction produces toxic silicon tetrafluoride gas; which may pressurise and/or rupture containers.

## SECTION 8 Exposure controls / personal protection

## **Control parameters**

## Occupational Exposure Limits (OEL)

INGREDIENT	DATA
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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
Australia Exposure Standards	hydrofluoric acid	Hydrogen fluoride (as F)	Not Available	Not Available	3 ppm / 2.6 mg/m3	Not Available

#### Emergency Limits

Ingredient	TEEL-1	TEEL-2		TEEL-3
phosphoric acid	Not Available	Not Available		Not Available
hydrofluoric acid	Not Available	Not Available		Not Available
Ingredient	Original IDLH		Revised IDLH	
phosphoric acid	1,000 mg/m3		Not Available	
hydrofluoric acid	30 ppm		Not Available	
water	Not Available		Not Available	

Exposure controls	
Appropriate engineering controls	Use in a well-ventilated area 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. The basic types of engineering controls are: Process controls which involve changing the way a job activity or process is done to reduce the risk. Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment.
Personal protection	
Eye and face protection	<ul> <li>Chemical goggles.</li> <li>Full face shield may be required for supplementary but never for primary protection of eyes.</li> <li>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.</li> </ul>
Skin protection	See Hand protection below
Hands/feet protection	<ul> <li>Barrier cream and</li> <li>Neoprene rubber gloves or</li> <li>Nitrile rubber gloves (Note: Nitric acid penetrates nitrile gloves in a few minutes.)</li> <li>Elbow length PVC gloves</li> <li>Rubber boots</li> <li>PVC safety gumboots</li> </ul>
Body protection	See Other protection below
Other protection	<ul> <li>Overalls.</li> <li>PVC Apron.</li> <li>PVC protective suit may be required if exposure severe.</li> <li>PVC protective suit may be required if exposure severe.</li> <li>Eyewash unit.</li> </ul>

#### Recommended material(s)

GLOVE SELECTION INDEX

Glove selection is based on a modified presentation of the:

"Forsberg Clothing Performance Index".

The effect(s) of the following substance(s) are taken into account in the  $\ensuremath{\textit{computer-generated}}$  selection:

Alum	Bright

Material	CPI
NEOPRENE	А
BUTYL	С
BUTYL/NEOPRENE	С
NAT+NEOPR+NITRILE	С
NATURAL RUBBER	С
NATURAL+NEOPRENE	С
NEOPRENE/NATURAL	С
NITRILE	С
NITRILE+PVC	С
PE	С
PVA	С
PVC	С
SARANEX-23	С
VITON	С
VITON/NEOPRENE	С

\* CPI - Chemwatch Performance Index

A: Best Selection

B: Satisfactory; may degrade after 4 hours continuous immersion

C: Poor to Dangerous Choice for other than short term immersion

NOTE: As a series of factors will influence the actual performance of the glove, a final selection must be based on detailed observation. -

\* Where the glove is to be used on a short term, casual or infrequent basis, factors such as "feel" or convenience (e.g. disposability), may dictate a choice of gloves which might otherwise be unsuitable following long-term or frequent use. A qualified practitioner should be consulted.

#### **SECTION 9** Physical and chemical properties

#### Respiratory protection

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

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	B-AUS P2	-	B-PAPR-AUS / Class 1 P2
up to 50 x ES	-	B-AUS / Class 1 P2	-
up to 100 x ES	-	B-2 P2	B-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

Appearance	Clear green acidic liquid; mixes with water to form a foaming solution.		
Physical state	Liquid	Relative density (Water = 1)	1.14
Odour	Not Available	Partition coefficient n-octanol / water	Not Available
Odour threshold	Not Available	Auto-ignition temperature (°C)	Not Available
pH (as supplied)	~1	Decomposition temperature	Not Available
Melting point / freezing point (°C)	Not Available	Viscosity (cSt)	Not Available
Initial boiling point and boiling range (°C)	Not Available	Molecular weight (g/mol)	Not Applicable
Flash point (°C)	Not Applicable	Taste	Not Available
Evaporation rate	Not Available	Explosive properties	Not Available
Flammability	Not Applicable	Oxidising properties	Not Available
Upper Explosive Limit (%)	Not Applicable	Surface Tension (dyn/cm or mN/m)	Not Available
Lower Explosive Limit (%)	Not Applicable	Volatile Component (%vol)	Not Available
Vapour pressure (kPa)	Not Available	Gas group	Not Available
Solubility in water	Miscible	pH as a solution (Not Available%)	~2
Vapour density (Air = 1)	Not Available	VOC g/L	Not Available

## SECTION 10 Stability and reactivity

Reactivity	See section 7
Chemical stability	<ul> <li>Presence of heat source</li> <li>Unstable in the presence of incompatible materials.</li> <li>Product is considered stable.</li> <li>Hazardous polymerisation will not occur.</li> </ul>
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

Inhaled	The material can cause respiratory irritation in some persons. The body's response to such irritation can cause further lung damage. Corrosive acids can cause irritation of the respiratory tract, with coughing, choking and mucous membrane damage. There may be dizziness, headache, nausea and weakness. Inhalation hazard is increased at higher temperatures. Acute effects of fluoride inhalation include irritation of nose and throat, coughing and chest discomfort. A single acute over-exposure may even cause nose bleed. Acute inhalation of hydrogen fluoride (hydrofluoric acid) vapours causes severe irritation of the eye, nose and throat, delayed fever, bluing of the extremities and water in the lungs, and may cause death. The above irritation occurs even with fairly low concentrations of hydrogen fluoride. Hydrogen fluoride has a strong irritating odour, that can be detected at concentrations of about 0.04 parts per million. Higher levels cause corrosion of the throat, nose and lungs, leading to severe inflammation and water buildup in the lungs (which may occur with 1 hour of exposure). Inhalation of aerosols (mists, fumes), generated by the material during the course of normal handling, may produce severely toxic effects. Relatively small amounts absorbed from the lungs may prove fatal.
Ingestion	Severely toxic effects may result from the accidental ingestion of the material; animal experiments indicate that ingestion of less than 5 gram may be fatal or may produce serious damage to the health of the individual. Ingestion of acidic corrosives may produce burns around and in the mouth, the throat and oesophagus. Immediate pain and difficulties in swallowing and speaking may also be evident. Fluoride causes severe loss of calcium in the blood, with symptoms appearing several hours later including painful and rigid muscle contractions of the limbs. Cardiovascular collapse can occur and may cause death with increased heart rate and other heart rhythm irregularities.
Skin Contact	Skin contact with the material may produce severely toxic effects; systemic effects may result following absorption and these may be fatal. 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. Fluorides are easily absorbed through the skin and cause death of soft tissue and erode bone. Healing is delayed and death of tissue may continue to spread beneath skin. Open cuts, abraded or irritated skin should not be exposed to this material Contact of the skin with liquid hydrofluoric acid (hydrogen fluoride) may cause severe burns, erythema, and swelling, vesiculation, and serious crusting. With more serious burns, ulceration, blue-gray discoloration, and necrosis may occur. Solutions of hydrofluoric acid, as dilute as 2%, may cause severe skin burns. Dermal burns may not be readily noticed or painful, unlike the warning properties of other acids. Entry into the blood-stream, through, for example, cuts, abrasions 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.
Eye	Direct eye contact with acid corrosives may produce pain, tears, sensitivity to light and burns. Mild burns of the epithelia generally recover rapidly and completely. Animal testing showed that a 20% solution of hydrofluoric acid (hydrogen fluoride) in water caused immediate damage in the form of total clouding of the lens and ischaemia of the conjunctiva. Swelling of the stroma of the cornea occurred within 1 hour, followed by tissue death (necrosis) of structures of the front of the eye.

Chronic	with cough, and inflammation of lung tissue often occurs. Long-term exposure to respiratory irritants may result in a Substance accumulation, in the human body, may occur a Extended exposure to inorganic fluorides causes fluorosis vomiting, loss of appetite, diarrhoea or constipation, weigh urination and thirst.	e erosion of teeth, swelling and/or ulceration of mouth lining. Irritation of airways to lung, irways disease, involving difficulty breathing and related whole-body problems. Ind may cause some concern following repeated or long-term occupational exposure. , which includes signs of joint pain and stiffness, tooth discolouration, nausea and tt loss, anaemia, weakness and general unwellness. There may also be frequent lestruction and corrosion of the bone and underlying tissue. Ingestion causes severe in levels are dangerously reduced.
	ΤΟΧΙΟΙΤΥ	IRRITATION
Alum Bright	Not Available	Not Available
	τοχιςιτγ	IRRITATION
	Dermal (rabbit) LD50: >1260 mg/kg <sup>[2]</sup>	Eye (rabbit): 119 mg - SEVERE
phosphoric acid	Inhalation(Rat) LC50; 0.026 mg/L4h <sup>[2]</sup>	Eye: adverse effect observed (irritating) <sup>[1]</sup>
	Oral (Rat) LD50; 1530 mg/kg <sup>[2]</sup>	Skin (rabbit):595 mg/24h - SEVERE
	erar (nat) Ebee, recentiging-	( )

hydrofluoric acid	TOXICITY Inhalation(Mouse) LC50; 342 ppm4h <sup>[2]</sup>	IRRITATION Eye (human): 50 mg - SEVERE
water	<b>TOXICITY</b> Oral (Rat) LD50; >90000 mg/kg <sup>[2]</sup>	IRRITATION Not Available
Legend:	<ol> <li>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</li> </ol>	

PHOSPHORIC ACID	phosphoric acid (85%) For acid mists, aerosols, vapours Test results suggest that eukaryotic cells are susceptible to genetic damage when the pH falls to about 6.5. Cells from the respiratory tract have not been examined in this respect. Mucous secretion may protect the cells of the airway from direct exposure to inhaled acidic mists (which also protects the stomach lining from the hydrochloric acid secreted there). The material may cause severe skin irritation after prolonged or repeated exposure and may produce on contact skin redness, swelling, the production of vesicles, scaling and thickening of the skin. Repeated exposures may produce severe ulceration.			
HYDROFLUORIC ACID	liver and kidney damage) [Manufacturer] for hydrogen fluoride (as vapour) aboratory (in vitro) and animal studies show, exposure to the material may result in a possible risk of irreversible effects, with the possibility of roducing mutation. The following information refers to contact allergens as a group and may not be specific to this product. Contact allergies quickly manifest themselves as contact eczema, more rarely as urticaria or Quincke's oedema. The pathogenesis of contact accema involves a cell-mediated (T lymphocytes) immune reaction of the delayed type. Other allergic skin reactions, e.g. contact urticaria, nvolve antibody-mediated immune reactions. The material may produce respiratory tract irritation, and result in damage to the lung including reduced lung function.			
PHOSPHORIC ACID & HYDROFLUORIC ACID & WATER	No significant acute toxicological data identified in li	terature search.		
PHOSPHORIC ACID & HYDROFLUORIC ACID	The material may produce severe irritation to the ey produce conjunctivitis. Asthma-like symptoms may continue for months or known as reactive airways dysfunction syndrome (F criteria for diagnosing RADS include the absence of asthma-like symptoms within minutes to hours of a airflow pattern on lung function tests, moderate to so lymphocytic inflammation, without eosinophilia.	even years after exposure to the materi RADS) which can occur after exposure to f previous airways disease in a non-atop documented exposure to the irritant. Oti	al ends. This may be due to a non-allergic condition o high levels of highly irritating compound. Main bic individual, with sudden onset of persistent her criteria for diagnosis of RADS include a reversible	
Acute Toxicity	¥	Carcinogenicity	×	
Skin Irritation/Corrosion	×	Reproductivity	×	
Serious Eye Damage/Irritation	×	STOT - Single Exposure	×	
Respiratory or Skin	*	STOT - Repeated Exposure	*	
sensitisation	Aspiration Hazard			

## — Data available to make classification

## **SECTION 12 Ecological information**

# Toxicity

	Endpoint	Test Duration (hr)	Species	Value	Source
Alum Bright	Not Available	Not Available	Not Available	Not Available	Not Available

	Endpoint	Test Duration (hr)	Sp	ecies	Value		Source
	NOEC(ECx)	72h	Alg	ae or other aquatic plants	<7.5mg	g/I	2
phosphoric acid	EC50	72h	Alg	ae or other aquatic plants	77.9mg	g/l	2
	EC50	48h	Cru	ustacea	>100m	g/l	2
	LC50	96h	Fis	h	67.94-	113.76mg/L	4
	Endpoint	Test Duration (hr)		Species		Value	Source
	NOEC(ECx)	504h		Crustacea		3.7mg/l	2
hydrofluoric acid	EC50	48h		Crustacea		97mg/l	2
	EC50	96h		Algae or other aquatic plants		43mg/l	2
	LC50	96h		Fish		51mg/l	2
	Endpoint	Test Duration (hr)		Species		Value	Source
water	Not Available	Not Available		Not Available		Not Available	Not Available
Legend:	Ecotox databas	1. IUCLID Toxicity Data 2. Europe ECHA F e - Aquatic Toxicity Data 5. ECETOC Aqua ion Data 8. Vendor Data	-	•			

#### DO NOT discharge into sewer or waterways.

## Persistence and degradability

Ingredient Pe	Persistence: Water/Soil	Persistence: Air
phosphoric acid HI	HIGH	HIGH
water LC	LOW	LOW

## **Bioaccumulative potential**

Ingredient	Bioaccumulation
phosphoric acid	LOW (LogKOW = -0.7699)

## Mobility in soil

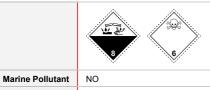
Ingredient	Mobility
phosphoric acid	HIGH (KOC = 1)

## **SECTION 13 Disposal considerations**

Waste treatment methods		
Product / Packaging disposal	<ul> <li>Recycle wherever possible or consult manufacturer for recycling options.</li> <li>Consult State Land Waste Management Authority for disposal.</li> <li>Treat and neutralise at an effluent treatment plant.</li> <li>Use soda ash or slaked lime to neutralise.</li> </ul>	

## **SECTION 14 Transport information**

## Labels Required



HAZCHEM

2X

## Land transport (ADG)

UN number	2922		
UN proper shipping name	CORROSIVE LIQUID, TOXIC, N.O.S. (contains hydrofluoric acid)		
Transport hazard class(es)	Class8Subrisk6.1		
Packing group	11		
Environmental hazard	Not Applicable		
Special precautions for user	Special provisions     274       Limited quantity     1 L		

#### Air transport (ICAO-IATA / DGR)

UN number	2922			
UN proper shipping name	Corrosive liquid, toxic, n.o.s. * (contains hydrofluoric acid)			
Transport hazard class(es)	ICAO/IATA Class ICAO / IATA Subrisk ERG Code	8 6.1 8P		
Packing group	II.			
Environmental hazard	Not Applicable			
Special precautions for user	Special provisions         Cargo Only Packing Instructions         Cargo Only Maximum Qty / Pack         Passenger and Cargo Packing Instructions         Passenger and Cargo Maximum Qty / Pack         Passenger and Cargo Limited Quantity Packing Instructions         Passenger and Cargo Limited Maximum Qty / Pack		A3 A803 855 30 L 851 1 L Y840 0.5 L	

#### Sea transport (IMDG-Code / GGVSee)

UN number	2922	2922		
UN proper shipping name	CORROSIVE LIQU	CORROSIVE LIQUID, TOXIC, N.O.S. (contains hydrofluoric acid)		
Transport hazard class(es)	IMDG Class     8       IMDG Subrisk     6.1			
Packing group	11			
Environmental hazard	Not Applicable			
Special precautions for user	EMS Number Special provisions Limited Quantities			

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

Not Applicable

## Transport in bulk in accordance with MARPOL Annex V and the IMSBC Code

Product name	Group
phosphoric acid	Not Available
hydrofluoric acid	Not Available
water	Not Available

#### Transport in bulk in accordance with the ICG Code

Product name	Ship Type
phosphoric acid	Not Available
hydrofluoric acid	Not Available
water	Not Available

#### **SECTION 15 Regulatory information**

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

#### phosphoric acid is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -Schedule 5

#### hydrofluoric acid is found on the following regulatory lists

Australia Hazardous Chemical Information System (HCIS) - Hazardous Chemicals Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -Schedule 2

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) -Schedule 3

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 4  $\,$ 

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 5  $\,$ 

Australian Inventory of Industrial Chemicals (AIIC)

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule  $\mathbf{6}$ 

Australia Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) - Schedule 7  $\,$ 

Australian Inventory of Industrial Chemicals (AIIC)

International Agency for Research on Cancer (IARC) - Agents Classified by the IARC Monographs

water is found on the following regulatory lists

Australian Inventory of Industrial Chemicals (AIIC)

#### **National Inventory Status**

National Inventory	Status		
Australia - AIIC / Australia Non-Industrial Use	Yes		
Canada - DSL	Yes		
Canada - NDSL	No (phosphoric acid; hydrofluoric acid; water)		
China - IECSC	Yes		
Europe - EINEC / ELINCS / NLP	Yes		
Japan - ENCS	Yes		
Korea - KECI	Yes		
New Zealand - NZIoC	Yes		
Philippines - PICCS	Yes		
USA - TSCA	Yes		
Taiwan - TCSI	Yes		
Mexico - INSQ	Yes		
Vietnam - NCI	Yes		
Russia - FBEPH	Yes		
Legend:	Yes = All CAS declared ingredients are on the inventory No = One or more of the CAS listed ingredients are not on the inventory. These ingredients may be exempt or will require registration.		

## **SECTION 16 Other information**

Revision Date	07/03/2020
Initial Date	02/09/2011

#### SDS Version Summary

Version	Date of Update	Sections Updated
3.1	01/11/2019	One-off system update. NOTE: This may or may not change the GHS classification
4.1	07/03/2020	Classification change due to full database hazard calculation/update.

#### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

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

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
ES: Exposure Standard
OSF: Odour Safety Factor
NOAEL :No Observed Adverse Effect Level
LOAEL: Lowest Observed Adverse Effect Level
TLV: Threshold Limit Value
LOD: Limit Of Detection
OTV: Odour Threshold Value
BCF: BioConcentration Factors
BEI: Biological Exposure Index
AIIC: Australian Inventory of Industrial Chemicals
DSL: Domestic Substances List
NDSL: Non-Domestic Substances List
IECSC: Inventory of Existing Chemical Substance in China
EINECS: European INventory of Existing Commercial chemical Substances
ELINCS: European List of Notified Chemical Substances
NLP: No-Longer Polymers
ENCS: Existing and New Chemical Substances Inventory
KECI: Korea Existing Chemicals Inventory
NZIoC: New Zealand Inventory of Chemicals
PICCS: Philippine Inventory of Chemicals and Chemical Substances TSCA: Toxic Substances Control Act
TCSI: Taiwan Chemical Substance Inventory INSO: Inventario Nacional de Sustancias Ouímicas
NSQ: Inventario Nacional de Sustancias Químicas
FBEPH: Russian Register of Potentially Hazardous Chemical and Biological Substances
FDEFT. Russian Register of Fotentially hazardous Chemical and Diological Substances

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