



SAFETY DATA SHEET

X-CHANGE®

Date of Issue: 14 March 2024

1. SUBSTANCE/PREPARATION AND COMPANY IDENTIFICATION

Chemical name of active ingredient(s): Proprietary blend of water conditioning agents, acidifying agents, pH buffers and anti-foam
Recommended use: Water conditioning agent
Supplier: UPL New Zealand Limited
PO Box 51584, Pakuranga
Auckland
Phone 0800 100 325
www.upl-ltd.com/nz
Emergency telephone number: 0800 Poison (0800 764 766) 24 Hours

2. HAZARDS IDENTIFICATION

Hazard Classification:



GHS Classification:

Signal word: WARNING

GHS Classification and Category	Hazard Code	Hazard Statement
Serious eye damage/eye irritation, Cat 2A	H320	Causes serious eye irritation

Required identification Details:

PRECAUTIONARY STATEMENTS PREVENTION:

P102	Keep out of reach of children.
P103	Read label before use.
P280	Wear face and eye protection.
P264	Wash hands thoroughly after handling.
P101	If medical advice is needed, have product container or label at hand.

RESPONSE

P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists, get medical advice/attention.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/preparation Information on hazardous ingredients

Substance/mixture: Mixture

Common name	CAS No	%
Ammonium Propionate	17496-08-1	10-30
Citric Acid	77-92-9	1-10
Diethylene glycol	111-46-6	1-10
Ethoxylated Alcohol Phosphate	Proprietary	1-10

The specific chemical identity and / or exact percentage (concentration) of the composition has been withheld as a trade secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

4. FIRST-AID MEASURES

Description of necessary first aid measures:

Inhalation:

Remove person to fresh air and keep comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Ingestion:

Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Never give anything by mouth to an unconscious person. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe.

If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Skin contact:

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Eye contact:

Begin eye irrigation immediately. Exposures to eye irritants may require medical evaluation following decontamination if pain or irritation persists. Immediately rinse eyes with large quantities of water or saline for a minimum of 15 minutes. If possible, remove contact lenses being careful not to cause additional eye damage. If the initial water supply is insufficient, keep the affected area wet with a moist cloth and transfer the person to the nearest place where rinsing can be continued for the recommended length of time. For additional advice call the medical emergency number on this SDS or your poison centre or doctor.

Most important symptoms/effects, acute and delayed.**Potential acute health effects**

Eye contact:	Causes serious eye irritation.
Inhalation:	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Skin contact:	May cause skin irritation. May be harmful in contact with skin.
Ingestion:	May be harmful if swallowed. Over-exposure by ingestion is unlikely under normal working conditions.

Over-exposure signs/symptoms

Eye contact:	Adverse symptoms may include the following: pain or irritation, watering, redness
Inhalation:	No specific data.
Skin contact:	No specific data.
Ingestion:	No specific data.

Indication of immediate medical attention and special treatment needed, if necessary

Notes to physician:	In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments:	Treat symptomatically and supportively.
Protection of first aiders:	No action shall be taken involving any personal risk or without suitable training. Decontamination measures may be necessary. Personnel and equipment must be checked and decontaminated prior to leaving the area.

See toxicological information (Section 11)

5. FIRE-FIGHTING MEASURES

HAZCHEM Code:	
Extinguishing media:	Use an extinguishing agent suitable for the surrounding fire.
Hazardous thermal (de)composition products:	Decomposition products may include the following materials: carbon dioxide, carbon monoxide, nitrogen oxides, sulfur oxides
Specific hazards arising from the chemical:	In a fire or if heated, a pressure increase will occur and the container may burst.
Special protective actions for fire-fighters:	No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. Contain and collect the water used to fight the fire for later treatment and disposal.
Special protective equipment for fire-fighters:	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions, protective equipment and emergency procedures**

For non-emergency personnel:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders:	If specialized clothing is required to deal with the spillage,

take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

Environmental precautions:

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused adverse impacts (sewers, waterways, soil or air).

Methods and materials for containment and cleaning up

Small spills:

Put on appropriate personal protective equipment (see Section 8). Move containers from spill area. Recover the material and use it for the intended purpose.

or

Place spilled material in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

Large spill:

Put on appropriate personal protective equipment (see Section 8). Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Use appropriate equipment to put the spilled substance in a container for reuse or disposal. Recycle to process, if possible.

or

Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. HANDLING AND STORAGE

Precautions for safe handling

Protective measures

Read label before use. Apply this product only as specified on the label. Do not handle until all safety precautions have been read and understood. Put on appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Advice on general occupational hygiene

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in Original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. If product freezes or crystallizes, store at room temperature to thaw. Mix up thoroughly before use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters
Occupational exposure limits
diethylene glycol

Biological exposure indices
Appropriate engineering controls

Environmental exposure controls

WES

TWA: 44 mg/m³.

STEL: 176 mg/m³.

No exposure indices known.

Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Personal Protective Equipment

Contact your personal protective equipment supplier to verify the compatibility of the equipment for the intended purpose.

Respiratory system:

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use

Skin and body:

Personal protective equipment for the body should be elected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Hands:

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.

Eye/face protection:

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles.

General hygiene:

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Appropriate techniques should be used to remove potentially contaminated clothing.

Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Liquid
Colour:	Yellowish. [Light]
Odour:	Pungent / Acidic [Slight]
pH:	4.3 to 4.6 [Conc. (% w/w): 100%]
Vapour Pressure:	Water @20°C: mm Hg 23.8; kPa 3.2
Boiling Point:	Not available.
Freezing/melting point:	Not available.
Solubility:	Soluble
Flammability:	Not available
Relative density:	1.13 to 1.15
Bulk density:	9.4 to 9.6 lb/gal
Flash point:	Closed cup: >100°C (>212°F)
Information for flammable material including:	
Octanol/water partition coefficient:	Not applicable
Lower and upper explosion/flammability limit:	Not available.
Decomposition temperature:	Not available.
Viscosity:	Not available.
Median particle size:	Not applicable.

10. STABILITY AND REACTIVITY

Stability:	The product is stable.
Reactivity:	No specific test data related to reactivity available for this product or its ingredients.
Conditions to avoid:	Keep away from incompatible materials. Keep away from heat and flame.
Incompatible materials:	Strong oxidizing materials, strong alkalis.
Hazardous decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous polymerization:	
Specific Data:	
Hazardous reactions:	If mixed with chlorine or hypochlorites, it may form nitrogen trichloride which may explode spontaneously in air.

11. TOXICOLOGICAL INFORMATION

Sensitization	Not available.
Skin:	No known significant effects or critical hazards.
Respiratory:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Carcinogenicity:	No known significant effects or critical hazards.
Reproductive toxicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
Citric acid	Category 3		Respiratory tract irritation
Specific target organ toxicity (repeated)		Not available	

exposure)	
Aspiration hazard	Not available
Information on the likely routes of exposure	Dermal contact. Eye contact.
<u>Potential acute health effects</u>	
Eye contact:	Causes serious eye irritation
Inhalation:	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs.
Skin contact:	May cause skin irritation. May be harmful in contact with skin.
Ingestion:	May be harmful if swallowed. Over-exposure by ingestion is unlikely under normal working conditions.
<u>Symptoms related to the physical, chemical and toxicological characteristics</u>	
Eye contact:	Adverse symptoms may include the following: pain or irritation watering redness
Inhalation:	No specific data
Skin contact:	No specific data
Ingestion:	No specific data
<u>Delayed and immediate effects and also chronic effects from short and long term exposure</u>	
<u>Short term exposure</u>	
Potential immediate effects:	See above
Potential delayed effects:	See below
<u>Long term exposure</u>	
Potential immediate effects:	See above.
Potential delayed effects:	See below.
<u>Potential chronic health effects</u>	Not available
Conclusion/Summary:	No known significant effects or critical hazards.
General:	No known significant effects or critical hazards.
Carcinogenicity:	No known significant effects or critical hazards.
Mutagenicity:	No known significant effects or critical hazards.
Reproductive toxicity:	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/L)	Inhalation (dusts and mists) (mg/L)
X-CHANGE®	2500	2500	N/A	N/A	N/A
citric acid	3000	N/A	N/A	N/A	N/A
diethylene glycol	500	11890	N/A	N/A	N/A

Other information: Not available

12. ECOLOGICAL INFORMATION

Toxicity

Product/ingredient name	Result	Species	Exposure
citric acid	Acute LC50 160000 µg/L marine water	Crustaceans - Carcinus maenas - Adult	48 hours
diethylene glycol	Acute LC50 75200000 µg/L fresh water	Fish - Pimephales promelas	96 hours

Conclusion/Summary:

Apply this product only as specified on the label. Do not apply directly to water, to areas where surface water is present, or to intertidal areas below the mean high water mark.
Do not contaminate water when cleaning equipment or disposing of equipment wash-waters.

Persistence and degradability:

Not available

Bioaccumulative potential:

Product/ingredient name	LogP _{ow}	BCF	Potential
citric acid	-1.8	-	low
diethylene glycol	-1.98	100	low

Mobility in soil:

Soil/water partition coefficient (K_{oc})

Not available

Other adverse effects:

No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS
Methods of disposal:

Read label before use. Apply this product only as specified on the label. Ideally, the product should be used for its intended purpose. If there is a need to dispose of the product, follow the recommendations in NZS 8409.

CONTAINER DISPOSAL: Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Triple rinse container and add residue to spray tank. Recycle where possible, through the Agrecovery programme; otherwise bury in landfill.
Do not contaminate water, food or feed by storage or disposal.

14. TRANSPORT INFORMATION -International transport regulations
UN number:

Not a dangerous good.

Class or Division:

NA

Classification Code:

This product is NOT classified as a Dangerous Good for transport in NZ; NZS 5433:2012
Not regulated.

INTERNATIONAL AIR TRANSPORT ASSOCIATION (IATA):**Special precautions for user:**

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

15. REGULATORY INFORMATION
ACVM Registered Number:

Exempt from registration

EPA Approval No:

Water Treatment Chemicals (subsidiary hazard) Group
Standard- HSR002684

16. OTHER INFORMATION
Additional information:

Original Issue Date: 29 September 2006

Revision Date: 14 March 2024
Replaces: ES501

Disclaimer EXCLUSION OF LIABILITY: PLEASE READ

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