

SAFETY DATA SHEET

Dryden Aqua



ACCORDING TO OSHA HCS (29 CFR 1910.1200)

Date of Issue: 18th May 2023
Date of First Issue: 20th March 2020
Version: V2.1

APF Pools

SECTION 1: IDENTIFICATION

Product identifier

Product Name APF Pools

Other Means of Identification

Product code 20011, 20011-BD & 20019
Product type Mixture

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

Identified Use(s) Multi-spectrum flocculant and coagulant
Uses Advised Against Anything other than the above.

Details of the supplier of the safety data sheet

Supplier Dryden Aqua Ltd
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Bonnyrigg,
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E-Mail (competent person) agnieszka@drydenaqua.com (Agnieszka Szewczyk)

Emergency telephone number

Emergency Phone No. +44 (0) 1978 528459 24 hour
CHEMTREC
Languages spoken English

SECTION 2: HAZARD(S) IDENTIFICATION

Classification of the substance or mixture in accordance with paragraph (d) of 29 CFR 1910.1200

Physical hazards Metal corrosive, Category 1
Health hazards Eye Damage, Category 1
Environmental hazards Aquatic Chronic, Category 3

Label elements

Hazard Pictogram(s)



Signal Word(s)
Hazard Statement(s)

DANGER
May be corrosive to metals.
Causes serious eye damage.
Harmful to aquatic life with long lasting effects.
Keep only in original packaging.
Avoid release to the environment.
Wear protective gloves/protective clothing and eye/face protection.
Immediately call a POISON CENTER/doctor.
Absorb spillage to prevent material damage.
Store in a corrosion-resistant container with a resistant inner liner.

Precautionary Statement(s)

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IF IN EYES: Immediately rinse with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Dispose of contents/container to an appropriate recycling or disposal facility.

Other hazards

None known

Percent of the mixture consists of ingredient(s) of unknown acute toxicity:

0% of the mixture consists of ingredients of unknown acute inhaled toxicity.
0% of the mixture consists of ingredients of unknown acute oral toxicity.
0% of the mixture consists of ingredients of unknown acute dermal toxicity.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

Not applicable

Mixtures Substances in preparations / mixtures

Classification: OSHA HCS (29 CFR 1910.1200)

Chemical identity of the substance	%W/W	CAS No.	EC No.	Hazard classification
Aluminium Chloride	3 - 6	1327-41-9	215-477-2	Metal corrosive, Category 1 Eye Damage, Category 1
Lanthanum(III) chloride hydrate	3 - <25	20211-76-1	233-237-5	Metal corrosive, Category 1 Eye Damage, Category 1 Skin sensitisation, category 1 Aquatic Chronic, Category 2 Specific Concentration Limit Skin sensitisation, category 1: >= 10%
Aluminium Hydroxychloride	1 - <5	12042-91-0	234-933-1	Metal corrosive, Category 1
2-Propen-1-aminium, N,N-dimethyl-N-2-propen-1-yl-, chloride (1:1), homopolymer	1 - <2.5	26062-79-3	607-855-4	Aquatic Chronic, Category 3

SECTION 4: FIRST AID MEASURES



Description of first aid measures

Self-protection of the first aider

Inhalation

Skin Contact

Eye Contact

Ingestion

No action should be taken involving personal risk. Use personal protective equipment as required. Ensure adequate ventilation. Avoid breathing vapours. Avoid all contact. Contaminated clothing should be laundered before reuse.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention if you feel unwell.

IF ON SKIN: Gently wash with plenty of soap and water. If irritation develops and persists, get medical attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.

IF SWALLOWED: Rinse mouth. Give plenty of water to drink. Do NOT induce vomiting. May cause damage to the digestive tract if swallowed. Seek medical treatment.

Causes serious eye damage.

Most important symptoms and effects, both acute and delayed

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

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Notes to a physician: IF IN EYES: Treatment by an ophthalmologist due to possible caustic burn of the eyes may be required.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media
Unsuitable extinguishing Media

Special hazards arising from the substance or mixture

Advice for fire-fighters

Use fire-extinguishing media appropriate for surrounding materials
Do not use water jet. Direct water jet may spread the fire.
This product is an aqueous mixture which will not burn.

Fire fighters should wear complete protective clothing including self-contained breathing apparatus. and Chemical protection suit. Keep containers cool by spraying with water if exposed to fire. If it is safe to do so, containers should be removed from fire area because they are likely to rupture under fire conditions.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Methods and material for containment and cleaning up

No action should be taken involving personal risk. Wear appropriate personal protective equipment, avoid direct contact. Ensure adequate ventilation. Avoid breathing vapours. Avoid all contact. Remove contaminated clothing and wash all affected areas with plenty of water.

Stop leak if safe to do so. Wipe up with absorbent material (eg. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills in original containers for re-use. Ventilate the area and wash spill site after material pick-up is complete.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Conditions for safe storage, including any incompatibilities

Storage temperature
Incompatible materials

When using do not eat or drink. Provide adequate ventilation when using the material and follow the principles of good occupational hygiene to control personal exposures. Avoid all contact. Do not ingest. Wear protective gloves/eye protection. Do not eat, drink or smoke when using this product. Wash hands before breaks and after work.

Keep only in original packaging. Keep in a well ventilated place. Keep container closed. Store in a cool/low-temperature, well-ventilated (dry) place away from heat and ignition sources. Keep from direct sunlight.

Stable at ambient temperatures.

Avoid contact with acids and alkalis. Strong oxidising agents. This product may react with metals. Non acid-proof metals, Bases, Unalloyed steel, Galvanized surfaces.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational Exposure Limits

No substance specific National Institute for Occupational Safety and Health (NIOSH) Recommended exposure limits (RELs)

SUBSTANCE	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m ³)	STEL (ppm)	STEL (mg/m ³)	Note
Titanium dioxide	13463-67-7	-	10	-	-	ACGIH, A4
		-	15	-	-	OSHA

Source: ACGIH: American Conference of Governmental Industrial Hygienists - Threshold limit values (TLV) 2017
OSHA Permissible Exposure Limit (PEL): Occupational Safety and Health Standards, 1910.1000 TABLE Z-1

Notes:

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A4: Not Classifiable as a Human Carcinogen: Agents which cause concern that they could be carcinogenic for humans but which cannot be assessed conclusively because of the lack of data. In vitro or animal studies do not provide indications of carcinogenicity which are sufficient to classify the agent into one of the other categories.

Biological exposure indices

Not established.

Appropriate engineering controls

Provide adequate ventilation (typically 10 air changes per hour) when using the material and follow the principles of good occupational hygiene to control personal exposures. If exposure limits have not been established, maintain airborne levels to an acceptable level. Guarantee that the eye flushing systems and safety showers are closely located to the working place.

Individual protection measures, such as personal protective equipment (PPE)

Take care for general good hygiene and housekeeping. Personal protection equipment should be chosen according to the CEN standards and in discussion with the supplier of the personal protective equipment. Wash contaminated clothing before reuse. Avoid all contact. Do not eat, drink or smoke at the work place.

Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.

Eye/face protection



Wear eye protection with side protection (EN166). Eyewash bottles should be available.

Skin protection



Hand protection: Wear impervious gloves (EN374). Breakthrough time of the glove material: refer to the information provided by the gloves' producer. Recommended: Neoprene

Body protection: Wear suitable coveralls to prevent exposure to the skin.

Respiratory protection



In case of inadequate ventilation wear respiratory protection. Recommended: EN143 Type A-P2

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Blue liquid
Odour	Odourless
Odour threshold	Not available
pH	3.0 – 4.0
Melting Point/Freezing Point	< -3 °C (< 26.6 °F)
Initial boiling point and boiling range	102 °C (215.6 °F)
Flash Point	Not applicable
Evaporation Rate	Not available
Flammability (solid, gas)	Not applicable
Upper/lower flammability or explosive limits	Not available
Vapour pressure	Not applicable
Vapour density	Not available
Relative density	1.10 - 1.30 g/cm ³

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Solubility(ies)	Water: miscible Other: Not available
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition Temperature	Not available
Viscosity	60 - 100 cP @ 25°C

Other information

Density (g/cm ³)	1.10 - 1.30 g/cm ³
Percent Volatile (%):	85.2 % estimated
Specific Gravity	1.05 – 1.25
Explosive properties	Not explosive
Oxidising properties	Not oxidising

SECTION 10: STABILITY AND REACTIVITY

Reactivity	Stable under normal conditions.
Chemical stability	Stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerisation will not occur.
Conditions to avoid	Avoid prolonged storage at elevated temperature. Keep from direct sunlight. Do not freeze. Keep away from incompatible materials.
Incompatible materials	Avoid contact with acids and alkalis. Strong oxidising agents. This product may react with metals. Non acid-proof metals, Bases, Unalloyed steel, Galvanized surfaces
Hazardous decomposition product(s)	None known.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects	
Acute toxicity - Ingestion	Mixture: Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) >2,000 mg/kg.
Acute toxicity - Skin Contact	Mixture: Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) >20 mg/L (air) (Vapour)
Acute toxicity - Inhalation	Mixture: Based upon the available data, the classification criteria are not met. Calculated acute toxicity estimate (ATE) > 2,000 mg/kg.
Skin corrosion/irritation	Mixture: Based upon the available data, the classification criteria are not met.
Serious eye damage/irritation	Mixture: Eye Dam. 1; Causes serious eye damage. Eye Dam. 1; H318: Causes serious eye damage. Causes serious eye damage. (rabbit) (OECD 405) Eye Dam. 1; H318; Causes serious eye damage. Causes serious eye damage. (rabbit) (OECD 405) (Aqueous solution: pH 3.1)
Respiratory or skin sensitization	Mixture: Based upon the available data, the classification criteria are not met.
Germ cell mutagenicity	Mixture: Based upon the available data, the classification criteria are not met.
Carcinogenicity	Mixture: Based upon the available data, the classification criteria are not met.
Reproductive toxicity	Mixture: Based upon the available data, the classification criteria are not met.
STOT - single exposure	Mixture: Based upon the available data, the classification criteria are not met.
STOT - repeated exposure	Mixture: Based upon the available data, the classification criteria are not met.
Aspiration hazard	Mixture: Based upon the available data, the classification criteria are not met.
Information on likely routes of exposure	
Inhalation	Unlikely – accidental exposure
Ingestion	Unlikely – accidental exposure
Skin Contact	Possible – accidental exposure
Eye Contact	Unlikely – accidental exposure

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Early onset symptoms related to exposure	Click or tap here to enter text. Causes serious eye damage.
Delayed health effects from exposure	None anticipated
Exposure levels and health effects	See Section: 8
Interactive effects	None Known
Other information	
OSHA Designated Carcinogen	All chemicals are not listed
NIOSH Occupational Carcinogen List	All chemicals are not listed
NTP Report on Carcinogens	All chemicals are not listed
IARC Monographs	Titanium dioxide; Group 2B Brilliant Blue FCF, disodium salt; Group 3

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity	Mixture: Aquatic Chronic, Category 3; Harmful to aquatic life with long lasting effects. Estimated LC50 (Mixture): > 10 to ≤ 100 mg/l. Aquatic Chronic 2; H411: Toxic to aquatic life with long lasting effects. NOEC (21d); 0.46 mg/L Cyprinus carpio (Common Carp) (OECD 204) Reference: ECHA registration dossier
Lanthanum(III) chloride hydrate	Aquatic Chronic, Category 3; Harmful to aquatic life with long lasting effects. Reference: EU classification and labelling inventory (512 Notifiers)
2-Propen-1-aminium, N,N-dimethyl-N-2-propen-1-yl-, chloride (1:1), homopolymer	The product contains inorganic compounds which are not biodegradable. The other components of the product are slowly biodegradable.
Persistence and degradability	
Aluminium Chloride	Not applicable for inorganic substances.
Aluminium Hydroxychloride	Not applicable for inorganic substances.
2-Propen-1-aminium, N,N-dimethyl-N-2-propen-1-yl-, chloride (1:1), homopolymer	No information available.
Lanthanum(III) chloride hydrate	No information available.
Bioaccumulative potential	The product has low potential for bioaccumulation.
Aluminium Chloride	No information available.
Aluminium Hydroxychloride	The substance has no potential for bioaccumulation.
2-Propen-1-aminium, N,N-dimethyl-N-2-propen-1-yl-, chloride (1:1), homopolymer	No information available.
Lanthanum(III) chloride hydrate	No information available.
Mobility in soil	The product is miscible with water. May spread in water systems.
Aluminium Chloride	No information available.
Aluminium Hydroxychloride	No information available.
2-Propen-1-aminium, N,N-dimethyl-N-2-propen-1-yl-, chloride (1:1), homopolymer	No information available.
Lanthanum(III) chloride hydrate	Mobility in soil not to be expected. Log Koc; 5.67 - 6.92 Source; ECHA registration dossier
Other adverse effects	None

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Dispose of wastes in an approved waste disposal facility. Recover or recycle if possible.
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SECTION 14: TRANSPORT INFORMATION

	Road/Rail (ADR/RID)	Sea transport (IMDG)	Air (ICAO/IATA)
UN number	UN 2581	UN 2581	UN 2581
UN proper shipping name	Aluminium Chloride Solution	Aluminium Chloride Solution	Aluminium Chloride Solution
Transport hazard class(es)	8	8	8
Packing group	III	III	III
Environmental hazards	Not classified	Not classified as a Marine Pollutant.	Not classified
Special precautions for user	See Section: 2		
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not applicable		
Additional Information	None		

SECTION 15: REGULATORY INFORMATION

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

US Federal Regulations

TSCA Chemical Data Reporting (CDR) Rule	Aluminium Chloride; Restricted (subject to 25,000 lb reporting threshold) Aluminium Hydroxychloride; Restricted (subject to 25,000 lb reporting threshold) Titanium dioxide; Restricted (subject to 25,000 lb reporting threshold) Brilliant Blue FCF, disodium salt; Restricted (subject to 25,000 lb reporting threshold)
NIOSH Occupational Carcinogen List	Titanium dioxide; Restricted
EPCRA Section 313	Not restricted
CWA 307- Toxic	Not restricted
CERCLA - Hazardous Substances	Not restricted
CWA Section 311 List of Hazardous Substances	Not restricted

US State Regulations

Proposition 65 (California)	Titanium dioxide; Restricted (airborne, unbound particles of respirable size)
California State - Hazardous substances information and training Act	Brilliant Blue FCF, disodium salt; Yes (Hazardous Substances List)
Massachusetts, New Jersey, Pennsylvania, Rhode Island- State Right to Know Lists	Titanium dioxide; Restricted Brilliant Blue FCF, disodium salt; Restricted
New York -State Right to Know Lists	Titanium dioxide; Restricted Brilliant Blue FCF, disodium salt; Restricted
Minnesota - State Right to Know Lists	Titanium dioxide; Hazardous substance
Massachusetts – Toxic Use reduction act	Not restricted

Non-Regional

IARC Monographs	Titanium dioxide; Group 2B Brilliant Blue FCF, disodium salt; Group 3
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SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements: Updated S3.2, S14.5. Updated version and date. Please review SDS with care.

Sections indicated with the following have been revised:

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This Safety Data Sheet was prepared in accordance with US Regulation OSHA HCS (29 CFR 1910.1200)

References:

Existing ECHA registration(s) for Aluminium chloride (CAS No. 1327-41-9), Lanthanum(III) chloride hydrate (CAS No. 20211-76-1), and Dialuminium Chloride Pentahydroxide (CAS No. 12042-91-0).

EU classification and labelling inventory for 2-Propen-1-aminium, N,N-dimethyl-N-2-propen-1-yl-, chloride (1:1), homopolymer (CAS No. 26062-79-3)

Classification of the substance or mixture in accordance with paragraph (d) of 29 CFR 1910.1200	Classification Procedure
Metal corrosive, Category 1	Expert judgement
Eye Damage, Category 1	Threshold Calculation
Aquatic Chronic, Category 3	Threshold Calculation

LEGEND

ADR/RID	ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road / RID: Regulations concerning the international railway transport of dangerous goods
BCF	Bioconcentration factor (BCF)
CAS	CAS: Chemical Abstracts Service
DNEL	Derived No Effect Level
EC	EC: European Community
EU	European Union
IATA	IATA: International Air Transport Association
ICAO/IATA	ICAO: International Civil Aviation Organization / IATA: International Air Transport Association
IMDG	IMDG: International Maritime Dangerous Goods
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No Effect Concentration
UN	United Nations
vPvB	very Persistent and very Bioaccumulative

Training advice: Consideration should be given to the work procedures involved and the potential extent of exposure as they may determine whether a higher level of protection is required.

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