

# **ULTRAFLOC 6080**

SDS 049/R2 2022-03-28

Reg. No. 2003/017152/07

Safety Data Sheet (SDS) According to the South Africa Regulations for Hazardous Chemical Agents 2021, the UN Transport of Dangerous Goods Model regulations, UN Globally Harmonised System of Classification & Labelling and EC Directive 1272/2008.

Ultrafloc 6080 has been approved by NSF/ANSI/CAN 60 for treatment of potable water up to the maximum rates specified by the NSF.

**SECTION 1. Identification – Chemical Product and Company** 

Trade Name U6080, ULTRAFLOC 6080

Mixture of polydiallyldimethylammonium chloride **Chemical Name** 

and Aluminium chlorohydrate

**Proper Shipping Name** CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.

**UN Number** 3265

**CAS Number** 26062-79-3 & 12042-91-0

2-Propen-1-aminium, N,N-dimethyl-N-2-propen-1-yl-, GHS product identifier

chloride (1:1), homopolymer

Dialuminium chloride pentahydroxide

**Chemical Family** Cationic Polymer

Clear, viscous liquid with slight odour Other means of identification

Recommended use of the chemical Water treatment: coagulation & removal of impurities Use only as directed and recommended doses Restrictions on use

Not for use by untrained persons

Supplier's details NCP Chlorchem (Pty) Ltd

Address Cnr. Norwalk Rd and Ossewa Str. Chloorkop, Gauteng, South Africa

Telephone No. +27 (0) 11 921 3111 24hour Emergency phone number +27 (0) 11 976 2115

# **SECTION 2. Hazards Identification**

GHS Classification of the substance: corrosive liquid, irritating to skin and eyes, and harmful to aquatic life

		GHS Hazard Statement
Transport - Class 8 Corrosive substances		
Skin Corrosion/Irritation Category 2		H315 Causes skin irritation
Eye Damage	Category 1	H318 Causes serious eye damage
Eye Irritation	Category 2A	H319 Causes serious eye irritation
Aquatic Acute	Category 1	H400 Very toxic to aquatic life
Aquatic Chronic	Category 1	H410 Very toxic to aquatic life with long last effects
Aquatic Chronic 2	Category 3	H411 Toxic to aquatic life with long lasting effects
STOT SE	Category 3	H335 May cause respiratory irritation
Corrosive to metals	Category 1	H290 Corrosive to Metals

The most important adverse effects to know in emergency are -

Corrosive - may cause skin irritation and serious eye damage, severe aquatic pollutant and corrosive to metals - mild steel, copper, iron, aluminium and alloys

#### GHS label elements, including precautionary Statements:







GHS 07 Skin & eye irritation health hazard - exclamation mark

GHS 09 Aquatic toxicity – dead tree and fish

GHS 05 Corrosive - metals & skin symbol

Signal word: Danger



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Reg. No. 2003/017152/07

**Hazard Statements -** causes serious eye damage and skin irritation; May cause respiratory irritation; Very toxic to aquatic life

#### **Precautionary statements:**

P280 wear protective gloves;

P264 Wash hands thoroughly after handling

P270 do not eat, drink or smoke when using /handling this product

P302 +P352 if on skin - wash off with plenty of water,

P332 + P313 if skin irritation occurs or persists get medical attention,

P280 wear eye / face protection

P305 + P351 + P338 if in eyes rinse cautiously

P362 + P364 take off contaminated clothing and wash before reuse

P261 + P271 avoid breathing mist, wear eye &face protection and use in well ventilated area

P304 & P340 if mist inhaled and breathing difficulty - remove person to fresh air and get medical attention

P301 if swallowed and feel unwell, get medical attention

P406 store in corrosion resistant containers

#### Response:

Refer Sections 5, 6 and 8

Storage:

Refer Section 7

Special Labelling requirements – refer Section 14 for Transport labels

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

Chemical identity : Mixture

Other means of identity : Clear, viscous liquid with slight odour

Common name, synonyms, etc : Cationic Polymer

CAS number : 26062-79-3 & 12042-91-0(ACH)

EC number : 607-855-4 & 234-933-1

IUPAC names : Diallyldimethylammonium chloride polymer

Impurities and stabilizing additives : none

Ingredient name	UN Number	CAS number	%	Classification EC1272/2008
2-Propen-1-aminium, N,N- dimethyl-N-2-propen-1-yl-, chloride (1:1), homopolymer	3265	26062-79-3	10-20	607-855-4
Dialuminium chloride pentahydroxide	3264	12042-91-0	75-90	234-933-1

#### **SECTION 4. First Aid Measures**

# Most important symptoms/effects, and necessary measures:

# Product in eye - can cause serious eye damage or irritation

Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for at least 20 minutes, by the clock, holding the eyelid(s) open. Remove contact lenses if easy and safe to do. Take care not to rinse contaminated water into the non-affected eye. If irritation persists, obtain medical attention immediately.

#### Product on skin - can cause skin irritation

Avoid direct contact with this chemical. Remove contaminated clothing, shoes, and leather goods (e.g. watchbands, belts) and wash with lukewarm, gently running water for at least 20 minutes. If irritation persists, obtain medical attention immediately.

Completely decontaminate clothing, shoes and leather goods before re-use, or discard.

# **Product ingested**

Do not induce vomiting. Drink water or milk if conscious. Never give anything by mouth if victim is rapidly losing consciousness, or is unconscious or convulsing. Obtain medical assistance immediately.



# **ULTRAFLOC 6080**

SDS 049/R2 2022-03-28

Reg. No. 2003/017152/07

Product inhaled: may cause respiratory irritation - Remove to fresh air and obtain medical attention.

# **SECTION 5. Fire Fighting Measures**

**Suitable extinguishing media -** Use water spray, carbon dioxide or dry chemical to extinguish fires. **Unsuitable extinguishing material –** None known

#### ERG - Emergency Response Guide 2020 and SANS 10232 - 3 Small

**Fires** – immediate response action should quickly put out the fire.

Large fires – evacuate area, move containers out and away from fire if can be done safely without increasing risk. Isolate and contain fire as much as possible, and dike or use inert material for berm to contain run-off water for later disposal. NB need to prevent run-off containing product from contaminating any water source as very toxic to aquatic life.

**Special hazards -** Use water to keep containers cool to prevent pressure build up and possible explosion. Caution -exposed product may break down/decompose to produce carbon monoxide, carbon dioxide, ammonia, oxides of nitrogen and /or hydrogen chloride.

Avoid use of metal containers as corrosive to most, use PVC, HDPE, Polypropylene or rubber equipment and buckets.

**Protective clothing -** Wear full protective clothing and self-contained, positive breathing apparatus for large fires.

NB: Prompt actions can stop small fires but large fires involving chemicals require professional Emergency Response teams.

#### **SECTION 6. Accidental Release Measures**

Personal precautions - Spills of this product are very slippery. Wear personal protection

**Environmental precautions -** Do not dispose large volumes of any chemical into watercourses or sewers. **Clean-up methods** 

**Small Spills:** wear protective clothing and gloves to scoop up as much as possible and then wash and scrub away with plenty of water to remove any residue. Spill may be neutralized with soda ash to pH between 6 and 9; Caution as this will liberate carbon dioxide gas.

**Large Spills:** stop source of leaks if possible, and prevent entry into waterways, sewers or basements. Seal off area and contain by diking with soil or other inert material. Recover as much as possible and then apply an inert material such as sawdust or commercial absorbent to absorb the remainder. Collect in suitable containers and then wash and scrub away the residue.

**GHS Disposal Precautionary Statement - P501** dispose of product and containers in accordance with SA National and / or regional Regulations refer National Environmental Management Waste Act - NEM: WA, it's Regulations and local by-laws. This informs permitted Waste Facilities and Service providers see the South African Waste Information Centre sawic.environment.gov.za

### **SECTION 7. Handling and Storage**

Precautions for safe handling - wear appropriate personal protective equipment - see Section 8.

Eating, drinking and smoking shall be prohibited in areas where chemicals are handled, stored or processed. Workers must wash hands before eating, drinking or smoking to remove any chemicals that could be ingested or inhaled.

Remove contaminated clothing and protective equipment before entering eating areas

**Storage requirements:** Store in a cool place out of direct sun and avoid sources of potential contamination. Keep away from strong oxidising agents to avoid contamination and any violent reactions.

**Handling precautions:** Keep drums tightly closed when not in use. Avoid contact with skin, eyes or clothing. Avoid breathing mist. Handle as a corrosive liquid, wear rubber gloves if likely to come into skin contact.



# **ULTRAFLOC 6080**

SDS 049/R2 2022-03-28

Reg. No. 2003/017152/07

Conditions for Safe Storage - refer SANS 10263: The Warehousing of dangerous goods, and

**10263 - Part 8** The storage and handling of corrosive substances, for more specific information and relevant regulations and recognised practices for storage, warehousing and handling.

#### GHS Precautionary Statement P 406 store in corrosion resistant

containers Suitable materials

PVC – Poly Vinyl Chloride, HDPE – High Density Polyethylene, PP – Polypropylene, SS – Stainless Steel, PTFE - Polytetrafluoroethylene, most rubbers.

#### **Unsuitable materials**

Mild steel, iron, copper, aluminium and alloys

### **SECTION 8. Exposure Controls/Personal Protection**

Control parameters e.g. occupational exposure limit values or biological limit values

Ingredient name	%	Exposure limits – OHS Act South Africa 1993
2-Propen-1-aminium, N,N-dimethyl-N-	10-20	No data available
2-propen-1-yl-, chloride (1:1),		
homopolymer		
Dialuminium chloride pentahydroxide	75-90	

**ACGIH** TLV(TWA) No data available

TLV(STEL) No data available

Engineering control measures: Local ventilation should be available if mists are produced.

**Personal protection – respiratory:** Unlikely route of exposure, but if mists are encountered could be irritating to the respiratory tract, use NIOSH approved respirator.

**Personal protection – hand:** listed skin irritant thus avoid contact with this chemical. Wear rubber gloves.

**Personal protection – eye:** listed eye irritant thus wear safety glasses with side shields at all times. Contact lenses should not be worn.

Personal protection - skin: listed skin irritant thus wear overalls, safety shoes/boots and apron.

**Personal protection – ingestion:** Restrict access to unauthorized persons. Wash hands after contact.

Other protection - A safety shower and eye wash facility should be nearby and ready for use.

### **SECTION 9. Physical and Chemical Properties**

Appearance Clear, viscous liquid.

Odour Slight

Odour Threshold no data available

Ph 3.0-4.5
Initial boiling point/range 95°C-100°C
Melting point/range Not applicable
Flash point Not applicable
Flammability Not flammable
Explosive properties Not applicable

Vapour pressure Not volatile at STP (Standard Temperature & Pressure)

Specific gravity 1.28-1.32@25°C Viscosity 1.28-1.32@25°C <100cPs@25°C

% Volatile by volume ~70

Evaporation rate Similar to that of water

Solubility - water Complete



# **ULTRAFLOC 6080**

SDS 049/R2 2022-03-28

Reg. No. 2003/017152/07

# **SECTION 10. Stability and Reactivity**

Chemical Stability: Stable under normal conditions of storage and handling.

**Reactivity:** Will react violently with strong oxidising agents.

**Conditions to avoid:** Do not mix with other chemicals, especially oxidising agents.

**Corrosive to**: iron, copper and aluminium and alloys.

**Incompatible materials:** Strong oxidizing agents.

Hazardous decomposition products: Thermal decomposition or combustion may produce carbon

monoxide, carbon dioxide, ammonia, oxides of nitrogen and/or hydrogen chloride.

**Polymerization:** Hazardous polymerization will not occur.

# **SECTION 11. Toxicological Information**

Acute toxicity	Result	Species	Dose/ Exposure	Caution
Oral	No available data			Ingestion may cause nausea and vomiting
Dermal	No available data			
Inhalation	No available data			

### GHS - EU Group Classification, and C & L Inventory:

**Skin Corrosion/Irritation:** Category 2, H315 Causes skin irritation

Eye Irritation: Category 2A, H319 Causes serious eye irritation

Respiratory or skin Sensitization:Not ClassifiedGerm Cell Mutagenicity:Not ClassifiedCarcinogenicity:Not ClassifiedReproductive Toxicity:Not Classified

STOT – Specific Target Organ Toxicity Single or Repeat Exposure: May cause respiratory irritation

Aspiration Hazard:

Not Classified but inhalation of mist may irritate the respiratory tract

### **SECTION 12. Ecological Information**

GHS - EU Group Classification, and C & L Inventory:

**Hazardous to the Aquatic Environment** 

Acute (short term) Category 1 - Hazard Statement H400 very toxic to aquatic life

Chronic (long term) Category 3 - Hazard Statement H412 Harmful to aquatic life with long lasting effects

Hazardous to the Ozone No evidence - not Classified

layer BiodegradabilityNo data availableBio-accumulationNo data availableMobilityNo data available

# **SECTION 13. Disposal Considerations**

### **Disposal methods**

Disposal must be made in accordance with the applicable National and Regional Government regulations at approved and permitted chemical disposal sites – refer to the SA National Environmental Management Waste Act - NEM: WA, it's Regulations and local by-laws. This informs permitted Waste Facilities and Service providers see the South African Waste Information Centre <a href="mailto:sawic.environment.gov.za">sawic.environment.gov.za</a>

# Disposal of used packaging

Packagings and containers, even those that have been emptied, will retain product residue and vapours, handle empty containers as if they were full. Remove all possible traces of product and wash prior to disposal of packaging and containers. Dispose in compliance with Regulations – see above and Industry Best Practice Always observe and comply with hazard warnings.



### **ULTRAFLOC 6080**

SDS 049/R2 2022-03-28

Reg. No. 2003/017152/07

# **SECTION 14. Transport information**

	UNTDG & SANS 10228	IMDG Code	ICAO / IATA
UN Number	UN 3265	UN 3265	UN 3265
UN proper shipping name – PSN	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.	CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S.
Transport Class 8 - Corrosive			
Packing group	III	III	III
Environmental hazards	Aquatic Pollutant	IMDG Supplement S-B	N/A
Additional information			
Emergency Response Guide - ERG 2020	Refer Guide 153 for Corrosive liquid info on Emergency response	Refer IMDG 40 -20 2020 Supplement & MARPOL	Refer ICAO & IATA 2022

# **SECTION 15. Regulatory information**

NSF/ AINSI 60 Standard for Drinking Water Treatment Chemicals

OHS Act - Occupational Health and Safety Act 85 of 1993 its Regulations and Amendments: HCA -Regulations for Hazardous Chemical Agents, 2021, which prescribe GHS Classification, GHS compliant SDS & Labels, packaging compliance + site Risk Assessment and monitoring to inform personnel Health / Biological Monitoring.

MHI - Major Hazards Installations Regulations - OHS Act: require site Risk Assessment to ascertain potential impacts outside of the site and potential impacts on the public or neighbours. Copy to be lodged with the Dept Labour, and local Emergency Services.

Pressure Equipment Regulations - OHS Act: encompasses containers and service equipment NEMA - National Environmental Management Act 107 of 1998: Duty of Care and Producer Responsibility for products and packaging on a Life Cycle basis. Environmental Impact Assessment Regulations for new installations or proposed increase in capacity over 25% NEM:WA - National Environmental Waste Act 59 of 2008: Extended Producer

Responsibility, requirements and regulations for waste management, classification and disposal NEM: AQA - National Environmental Air Quality Act 39 of 2004: AQA Licenses and Emissions

National Department of Health - Hazardous Substances Act 15 of 1973

EU Regulation EC 1272/2008 (EU GHS /CLP) - Safety Data Sheets and Labelling

### **SECTION 16. Other information**

Training - Persons handling and working with this product should be Trained in the hazards and safe handling as required in the Chapter 1.3 of the UN Model Regulations for Transport of Dangerous Goods before commencing work with chemicals.

ECHA - European Chemical Agency Website, Chemical information, C&L Inventory, Chemicals of Very High Concern (SVHCs) and Chemicals for Community Rolling Action Plan (CoRAP) ERG 2020 Transport Canada and US Dept Transportation PHMSA - Pipeline and Hazardous **Materials Safety Administration** 

Other relevant information including information on preparation and revision of the SDS -ISO 11014:2009 Safety Data Sheets for Chemical Products - content and order of sections adopted as SANS 11014:2010

UN Recommendations for Transport of Dangerous Goods Model Regulations commonly known as the TDG "Orange Books" 22nd revision published June 2021

UN Globally Harmonized System of Classification and Labelling of Chemicals - GHS commonly known as the GHS "Purple Book" 9th revision 2021

IMDG – International Maritime Dangerous Goods Code, 2020 edition, amendment 40 - 20

IATA Technical Regulations 63<sup>rd</sup> edition, January 2022



# SAFETY DATA SHEET ULTRAFLOC 6080

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Date of original MSDS : 2013-03-20 Compiled by HH Maringa
Date of Revision 1 : 2016-11-16 Revised by E Anderson
Date of Revision 2 : 2022-03-28 Revised by E Anderson

Approved as per Management of Change No.: 24-05-2022-284

#### **EXCLUSION OF LIABILITY**

All information and instructions provided in this Safety Data Sheet (SDS) in respect of the substance is given in terms of the provisions of the Occupational Health and Safety Act No 85 of 1993 and its Regulations. Information is based on best available scientific and technical knowledge as at the date indicated on this SDS, and is presented in good faith to be correct.

The information provided in this SDS apply only to the product in its present form and not to any formulation or mix. It should be used only as directed, and any formulations or other use is at the responsibility of the user of the product as formulated and/or mixed, to investigate and establish any hazards or risks which may arise out of its use, wherever such user may be situated.

It is the legal responsibility of the person in receipt of this SDS, wherever such may be situated, to ensure that the information provided is communicated to, and understood by any person who may come in contact with the product in any place and in any manner whatsoever. If such recipient produces formulations or mixtures using the product, then it is the recipient's sole responsibility to comply with the provisions of the Act in respect of the provision of the necessary SDS, and/or to comply with any other applicable legislation.