Issue Date: Oct 2023

SDS No: 743
Version: V.0.0.5

TelChem Drop Out

Cromag Pty Ltd
Safety Data Sheet according to WHS and ADG requirements

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

Product Identifier

Product name	TelChem Drop Out
Chemical Name	Not Available
Synonyms	Flocculent
Proper shipping name	Not Applicable
Chemical formula	Not Available
Other means of identification	Not Available

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

Relevant Identified Uses	Flocculent for swimming pool water

Details of the supplier of the safety data sheet

Company Name	**Cromag Pty Ltd trading as Telford Industries and Sigma Chemicals**
Address	**7 Valentine Street Kewdale WA 6105 Australia**
Telephone	**+61 8 9353 2053**
Website	**www.telfordindustries.com.au / www.sigmachemicals.com.au**
Email	**info@telfordindustries.com.au / info@sigmachemicals.com.au**

Emergency telephone number

Association/Organisation	**Not Available**
Emergency telephone numbers	**DFES: 000 (HAZMAT EMERGENCIES)**
Other Emergency telephone numbers	**POISONS: 13 11 26**

SECTION 2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

HAZARDOUS CHEMICAL. NOT DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.

Poisons Schedule	**Not Applicable**
Classification	Serious Eye Damage Category 1, Skin Corrosion/Irritation Category 1A, Corrosive to Metals Category 1

Label Elements

GHS label elements	
SIGNAL WORD	**DANGER**

Hazard statement(s)

H290	Maybe corrosive to metals.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Precautionary statement(s) Prevention

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary statement(s) Response

P362	Take off contaminated clothing and wash before reuse.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P302+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P332+P313	If skin irritation occurs: Get medical advice/attention.

Precautionary statement(s) Storage

P405	Store locked up.

Precautionary statement(s) Disposal

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

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Substances

CAS No	% [weight/volume]	Name
1327-41-9	20 – 40	aluminium hydroxide chloride
26062-79-3	20 - 25	diallyldimethylammonium chloride
7732-18-5	balance	water

SECTION 4 FIRST AID MEASURES

Description of first aid measures

Eye Contact	If this product comes in contact with the eyes: ➢ Immediately hold eyelids apart and flush the eye continuously with running water. ➢ Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids. ➢ Continue flushing until advised to stop by the Poisons Information Centre or for at least 15 minutes. ➢ Transport to hospital or doctor without delay. ➢ Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.
Skin Contact	If skin or hair contact occurs: ➢ Immediately flush body and clothes with large amounts of water, using safety shower if available.

	➢ Quickly remove all contaminated clothing, including footwear. ➢ Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre. ➢ Transport to hospital, or doctor.
Inhalation	➢ If fumes or combustion products are inhaled remove from contaminated area. ➢ Lay patient down. Keep warm and rested. ➢ Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures. ➢ Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary. ➢ Transport to hospital, or doctor, without delay.
Ingestion	➢ For advice, contact a Poisons Information Centre or a doctor at once. ➢ Urgent hospital treatment is likely to be needed. ➢ If swallowed do NOT induce vomiting. ➢ If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration. ➢ Observe the patient carefully. ➢ Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. ➢ Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink. ➢ Transport to hospital or doctor without delay.

Indication of any immediate medical attention and special treatment needed

- Manifestation of aluminium toxicity includes hypercalcaemia, anaemia, Vitamin D refractory osteodystrophy and a progressive encephalopathy (mixed dysarthria-apraxia of speech, asterixis, tremulousness, myoclonus, dementia, focal seizures). Bone pain, pathological fractures and proximal myopathy can occur.
- Symptoms usually develop insidiously over months to years (in chronic renal failure patients) unless dietary aluminium loads are excessive.

[Ellenhorn & Barceloux: Medical Toxicology]

SECTION 5 FIREFIGHTING MEASURES

Extinguishing Media

- Water spray or fog
- Foam
- Dry chemical powder
- Carbon dioxide

Special hazards arising from the substrate or mixture

Fire Incompatibility	Avoid contamination with oxidising agents i.e. nitrates, oxidising acids, chlorine bleaches, pool chlorine etc. as ignition may result.

Advice for firefighters

Fire Fighting	➢ Alert Fire Brigade and tell them location and nature of hazard. ➢ Wear full body protective clothing with breathing apparatus. ➢ Prevent, by any means available, spillage from entering drains or water course. ➢ If safe to do so, remove containers from path of fire.
Fire/Explosion Hazard	➢ Combustible ➢ Slight fire hazard when exposed to heat or flame. ➢ Heating may cause expansion or decomposition leading to violent rupture of containers. ➢ On combustion, may emit toxic fumes of carbon monoxide (CO). ➢ May emit acrid smoke. ➢ Mists containing combustible materials may be explosive. Combustion products include: carbon dioxide (CO_2) hydrogen chloride

	nitrogen oxides (NOx) May emit poisonous or corrosive fumes.
HAZCHEM	Not Applicable

SECTION 6 ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

See section 8

Environmental precautions

See section 12

Methods and material for containment and cleaning up

Minor Spills	➢ Clean up all spills immediately. ➢ Avoid contact with skin and eyes. ➢ Control personal contact with the substance, by using protective equipment. ➢ Use dry clean up procedures and avoid generating dust. ➢ Place in a suitable, labeled container for waste disposal. ➢ Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.
Major Spills	➢ Clear area of personnel and move upwind. ➢ Alert Fire Brigade and tell them location and nature of hazard. ➢ Wear full body protective clothing with breathing apparatus. ➢ Prevent, by any means available, spillage from entering drains or water course. ➢ Consider evacuation (or protect in place). ➢ Collect recoverable product into labelled containers for recycling. ➢ Neutralize/decontaminate residue (see Section 13 for specific agent). ➢ Wash area and prevent runoff into drains. ➢ If contamination of drains or waterways occurs, advise emergency services.

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

SECTION 7 HANDLING AND STORAGE

Precautions for safe handling

Safe handling	➢ Avoid all personal contact, including inhalation. ➢ Wear protective clothing when risk of exposure occurs. ➢ When handling DO NOT eat, drink or smoke. ➢ Keep containers securely sealed when not in use. ➢ Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.
Other Information	➢ Store in original containers. ➢ Store in a cool, dry, well-ventilated area. ➢ Store away from incompatible materials and foodstuff containers. ➢ Protect containers against physical damage and check regularly for leaks. ➢ Observe manufacturer's storage and handling recommendations contained within this SDS.

Conditions for safe storage, including any incompatibilities

Suitable Container	➢ Polyethylene or polypropylene container. ➢ Packing as recommended by manufacturer. ➢ Check all containers are clearly labelled and free from leaks.
Storage Incompatibility	➢ Avoid reaction with oxidising agents.

	➢ Avoid strong acids, bases.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

OCCUPATIONAL EXPOSURE LIMITS (OEL)
INGREDIENT DATA

Source	Ingredient	Material name	TWA	STEL	Peak	Notes
Australia Exposure Standards	aluminium hydroxide chloride	Aluminium, soluble salts (as Al)	2 mg/m3	Not Available	Not Available	Not Available

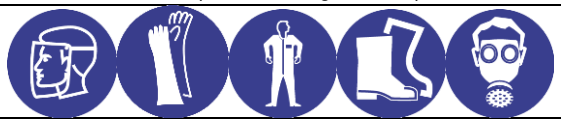
EMERGENCY LIMITS

Ingredient	Material Name	TEEL-1	TEEL-2	TEEL-3
diallyldimethylammonium chloride	diallyldimethylammonium chloride	Not Available	Not Available	Not Available

Ingredient	Original IDLH	Revised IDLH
All Ingredients	Not Available	Not Available

MATERIAL DATA

Exposure controls

Appropriate engineering controls	Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.
Personal Protection	
Eye and Face protection	➢ Safety glasses with imperforated side shields may be used where continuous eye protection is desirable, as in laboratories; ➢ Chemical goggle. whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted. ➢ Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes. ➢ Alternatively a gas mask may replace splash goggles and face shields.
Skin protection	See Hand protection below
Hands/feet protection	➢ Elbow length PVC gloves ➢ Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended.
Body protection	See Other protection below
Other protection	➢ Overalls. ➢ PVC Apron. ➢ PVC protective suit may be required if exposure severe. ➢ Eyewash unit. ➢ Ensure there is ready access to a safety shower.
Thermal hazards	Not Available

Respiratory protection

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

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Viscous Liquid miscible with water

Physical state	Liquid	**pH as a Solution**	Not Available
Odour	Not Available	**Molecular Weight (g/mole)**	Not Available
Odour threshold	Not Available	**Flammability**	Not Applicable
Specific gravity	1.15 – 1.2	**Upper Explosive Limit (%)**	Not Applicable
Colour	Pale brown liquid	**Lower Explosive Limit (%)**	Not Applicable
pH (as supplied)	2	**Vapour pressure (kPa)**	Not Available
Melting point/Freezing point (°C)	Not Available	**Solubility in water (g/L)**	Miscible
Initial boiling point and boiling range (°C)	~ 100	**Vapour density (Air = 1)**	Not Available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	See section 7
Chemical stability	➢ Unstable in the presence of incompatible materials. ➢ Product is considered stable. ➢ Hazardous polymerisation will not occur.
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	Acidic corrosives produce respiratory tract irritation with coughing and mucous membrane damage.
Ingestion	Accidental ingestion of the material may be damaging to the health of the individual. Acute toxic responses to aluminium are confined to the more soluble forms.
Skin Contact	The material produces mild skin irritation; Skin irritation may also be present after prolonged or repeated exposure; this may result in a form of contact dermatitis (nonallergic). Entry into the blood-stream through, for example, cuts, abrasions, puncture wounds or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating. Direct eye contact with acid corrosives may produce pain, lachrymation, photophobia and burns.
Chronic	Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

Product Name	TOXICITY	IRRITATION
aluminium hydroxide chloride	Dermal (rat) LD50: >2000 mg/kg[1]	Not Available

	Oral (rat) LD50: >300 and <2000 mg/kg[1]	
water	Oral (rat) LD50: >90000 mg/kg[2]	Not Available

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

aluminium hydroxide chloride	Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.
diallyldimethylammonium chloride	Most undiluted cationic surfactants satisfy the criteria for classification as Harmful (Xn) with R22 and as Irritant (Xi) for skin and eyes with R38 and R41. Somnolence, convulsions, respiratory depression recorded.

Acute Toxicity	⦸	**Carcinogenicity**	⦸
Skin Irritation/Corrosion	⦸	**Reproductivity**	⦸
Serious Eye Damage/Irritation	✓	**STOT – single exposure**	✓
Respiratory or Skin sensitisation	⦸	**STOT – repeated exposure**	⦸
Mutagenicity	⦸	**Aspiration Hazard**	⦸

Legend: ✗ *– Data available but does not fill the criteria for classification*
✓ *– Data required to make classification available*
⦸ *– Data Not Available to make classification*

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
aluminium hydroxide chloride	LC50	96	Fish	1mg/L	2
aluminium hydroxide chloride	EC50	48	Crustacean	0.214-1.26mg/L	2
aluminium hydroxide chloride	EC50	72	Algae or other aquatic plants	0.075mg/L	2
aluminium hydroxide chloride	EC50	192	Crustacean	0.005mg/L	2
aluminium hydroxide chloride	NOEC	1440	Fish	0.013mg/L	2
Legend:	*Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data*				

Persistence and degradability

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

Bio accumulative potential

Ingredient	Bioaccumulation
water	LOW (Log KOW = -1.38)

Mobility in Soil

Ingredient	Mobility
water	LOW (KOC = 14.3)

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product/Packaging disposal	➢ Containers may still present a chemical hazard / danger when empty. ➢ **DO NOT** allow wash water from cleaning or process equipment to enter drains. ➢ In all cases disposal to sewer may be subject to local laws and regulations. ➢ Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

SECTION 14 TRANSPORT INFORMATION

Labels Required

Not Applicable

Land transport (ADG), Air transport (ICAO-IATA / DGR), Sea transport (IMDG-Code / GGVSee)

Not classified as Dangerous Goods according to the ADG Code.

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

Not Applicable

SECTION 15 REGULATORY INFORMATION

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

ALUMINIUM HYDROXIDE CHLORIDE (1327-41-9) IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Inventory of Chemical Substances (AICS)
Australia Exposure Standards
Australia Hazardous Substances Information System - Consolidated Lists

DIALLYLDIMETHYLAMMONIUM CHLORIDE (26062-79-3) IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Inventory of Chemical Substances (AICS)

WATER (7732-18-5) IS FOUND ON THE FOLLOWING REGULATORY LISTS
Australia Inventory of Chemical Substances (AICS)

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

SECTION 16 OTHER INFORMATION

Ingredients with multiple CAS numbers

Name	CAS No
aluminium hydroxide chloride	1327-41-9, 12042-91-0

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are risks in

the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

Definitions and abbreviations

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

END OF SDS