

# SUDFLOC 3170

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878

Issue date: 10/20/2023

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Version: 1.3

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

#### 1.1. Product identifier

Product form	: Mixture
Trade name	: SUDFLOC 3170
EC-No.	: 234-933-1
CAS-No.	: 12042-91-0
Product code	: SUDFLOC 3170
Type of product	: Mixture
Formula	: AlCl <sub>3</sub>
Synonyms	: Aluminium chloride solution / aluminum chloride, basic
Product group	: Trade product

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

##### 1.2.1. Relevant identified uses

Use of the substance/mixture	: Potable Water Coagulation : Maximum User Limit is 70 mg/L
Use of the substance/mixture	: Chemical intermediate Water treatment Waste water treatment

##### 1.2.2. Uses advised against

No additional information available

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

ImproChem(Pty) Ltd T/A AECI Water  
1 Wharhirst Road  
Umbogintwini - South Africa  
T +27(31) 949 8200

#### 1.4. Emergency telephone number

Emergency number : 0800 SPILLS or 0800 774557

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Serious eye damage/eye irritation, Category 2 H319

Full text of H- and EUH-statements: see section 16

##### Adverse physicochemical, human health and environmental effects

Harmful to aquatic life.

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS07

Signal word (CLP)	: Warning
Hazard statements (CLP)	: H319 - Causes serious eye irritation.
Precautionary statements (CLP)	: P264 - Wash hands, forearms and face thoroughly after handling. P280 - Wear goggles, gloves, clothing and respiratory protection P337+P313 - If eye irritation persists: Get medical advice/attention.

#### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aluminium Chlorohydrate	(CAS-No.) 12042-91-0	24 – 28	Met. Corr. 1, H290 Eye Dam. 1, H318

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Call a poison center or a doctor if you feel unwell. Never give anything by mouth to an unconscious person. Respiratory arrest: artificial respiration or oxygen. Vomiting: prevent asphyxia/aspiration pneumonia.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Remove the victim into fresh air. Respiratory problems: consult a doctor/medical service.
First-aid measures after skin contact	: Rinse with water. Take victim to a doctor if irritation persists. Wash skin with plenty of water.
First-aid measures after eye contact	: Rinse immediately with plenty of water for 15 minutes. Do not apply neutralizing agents. Take victim to an ophthalmologist. Rinse eyes with water as a precaution.
First-aid measures after ingestion	: Rinse mouth with water. Call Poison Information Centre ( <a href="http://www.big.be/antigif.htm">www.big.be/antigif.htm</a> ). Consult a doctor/medical service if you feel unwell. Ingestion of large quantities: immediately to hospital. Call a poison center or a doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation	: No effects known.
Symptoms/effects after skin contact	: Slight irritation.
Symptoms/effects after eye contact	: Inflammation/damage of the eye tissue.
Symptoms/effects after ingestion	: No effects known.
Chronic symptoms	: No effects known.

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

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

Suitable extinguishing media	: Water spray. Polyvalent foam. ABC powder. Carbon dioxide. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuitable extinguishing media	: No unsuitable extinguishing media known.

#### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD. Non-flammable.
Explosion hazard	: DIRECT EXPLOSION HAZARD. No data available on direct explosion hazard. INDIRECT EXPLOSION HAZARD. No data available on indirect explosion hazard.
Hazardous decomposition products in case of fire	: Toxic fumes may be released.

#### 5.3. Advice for firefighters

Precautionary measures fire	: Exposure to fire/heat: keep upwind. Exposure to fire/heat: consider evacuation. Exposure to fire/heat: have neighbourhood close doors and windows.
Firefighting instructions	: Dilute toxic gases with water spray.
Protection during firefighting	: Heat/fire exposure: compressed air/oxygen apparatus. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Protective equipment	: Gloves. Safety glasses. Protective clothing.
Emergency procedures	: Ventilate spillage area. Mark the danger area. No naked flames. Keep containers closed. Wash contaminated clothes.

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### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment.

### 6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Consult "Material-handling" to select material of containers. Plug the leak, cut off the supply.

Methods for cleaning up : Take up liquid spill into absorbent material. Take up liquid spill into absorbent material, e.g.: dry lime or soda (sodium carbonate). Scoop absorbed substance into closing containers. See "Material-handling" for suitable container materials. Clean contaminated surfaces with an excess of water. Wash clothing and equipment after handling.

Other information : Dispose of materials or solid residues at an authorized site.

### 6.4. Reference to other sections

For further information refer to section 13.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Comply with the legal requirements. Remove contaminated clothing immediately. Thoroughly clean/dry the installation before use. Keep away from naked flames/heat. Observe strict hygiene. Keep container tightly closed. Measure the concentration in the air regularly. Carry operations in the open/under local exhaust/ventilation or with respiratory protection.

Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in a well-ventilated place. Keep cool.

Heat and ignition sources : KEEP SUBSTANCE AWAY FROM: heat sources.

Information on mixed storage : KEEP SUBSTANCE AWAY FROM: metals.

Storage area : Store in a dry area. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing, correctly labelled, meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: plastics. MATERIAL TO AVOID: steel, aluminium.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Personal protective equipment : Gloves, shoulder length. Protective goggles. Protective clothing. Safety Boots. Insufficient ventilation: wear respiratory protection.

Hand protection : Gloves, shoulder length

Eye protection : Protective goggles

Skin and body protection : Protective clothing

Respiratory protection : High gas/vapour concentration: gas mask with filter type B



Environmental exposure controls : Avoid release to the environment.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state : Liquid

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Appearance	: Liquid.
Molecular mass	: 133.34 g/mol
Colour	: Clear to pale yellow.
Odour	: Mild odour.
Odour threshold	: No data available
pH	: 2 – 4
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: < 0 °C
Boiling point	: 75 – 100 °C
Flash point	: > 100 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20°C	: No data available
Relative density	: (20 °C)
Density	: 1.15 (≥ 1.18) kg/l (20 °C)
Solubility	: Miscible with water. Soluble in water. Water: > 1000 g/l (20 °C)
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

Other properties : Substance has acid reaction.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

On burning: release of toxic and corrosive gases/vapours (hydrogen chloride). No data available.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

Slowly corrodes metals. Corrosion tests were done using Polyaluminium Chloride and the Corrosion Rate was 3,08 mm/year which is less than the max of 6.25 mm/year, above which a product is classified as corrosive.

### 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

SUDFLOC 3170 (12042-91-0)	
LD50 oral rat	> 2000 mg/kg bodyweight (Rat; OECD 423: Acute Oral Toxicity – Acute Toxic Class Method; Experimental value)
LD50 dermal rat	> 2000 mg/kg bodyweight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)

Skin corrosion/irritation : Not classified  
pH: 2 – 4

Serious eye damage/irritation : Causes serious eye irritation.  
pH: 2 – 4

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Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

### SUDFLOC 3170 (12042-91-0)

Viscosity, kinematic	No data available
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## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
Ecology - air	: Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009).
Ecology - water	: Maximum concentration in drinking water: 0.200 mg/l (aluminium) (Directive 98/83/EC); 250 mg/l (chloride) (Directive 98/83/EC). Toxic to fishes. Harmful to invertebrates. pH shift. Inhibition of activated sludge.

### SUDFLOC 3170 (12042-91-0)

LC50 - Fish [1]	> 200 mg/l
LC50 - Other aquatic organisms [1]	> 8 mg/l
EC50 - Crustacea [1]	98 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Semi-static system; Fresh water; Experimental value)
EC50 - Crustacea [2]	42 mg/l (EC10; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Semi-static system; Fresh water; Experimental value)

### 12.2. Persistence and degradability

#### SUDFLOC 3170 (12042-91-0)

Persistence and degradability	Biodegradability: not applicable. No (test) data on mobility of the components available.
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### 12.3. Bioaccumulative potential

#### SUDFLOC 3170 (12042-91-0)

Bioaccumulative potential	No bioaccumulation data available.
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### 12.4. Mobility in soil

#### SUDFLOC 3170 (12042-91-0)

Surface tension	0.0736 N/m (20 °C; 1 g/l)
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### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Precipitate/make insoluble. Remove to an authorized dump (Class I). Treat using the best available techniques before discharge into drains or the aquatic environment.
Additional information	: LWCA (the Netherlands): KGA category 01. Hazardous waste according to Directive 2008/98/EC.
European List of Waste (LoW) code	: 16 03 03* - inorganic wastes containing dangerous substances

## SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

### 14.1. UN number

UN-No. (ADR)	: Not applicable
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UN-No. (IMDG) : Not applicable  
UN-No. (IATA) : Not applicable

### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : Not applicable  
Proper Shipping Name (IMDG) : Not applicable  
Proper Shipping Name (IATA) : Not applicable

### 14.3. Transport hazard class(es)

**ADR**  
Transport hazard class(es) (ADR) : Not applicable

**IMDG**  
Transport hazard class(es) (IMDG) : Not applicable

**IATA**  
Transport hazard class(es) (IATA) : Not applicable

### 14.4. Packing group

Packing group (ADR) : Not applicable  
Packing group (IMDG) : Not applicable  
Packing group (IATA) : Not applicable

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Not applicable

#### - Transport by sea

Not applicable

#### - Air transport

Not applicable

### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

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

#### 15.1.1. EU-Regulations

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)  
Contains no substance(s) listed on the REACH Candidate List  
Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

Full text of H- and EUH-statements:

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Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
H319	Causes serious eye irritation.

### SDS ImproChem Test

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