

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

1.1. Product identifier

Product form : Mixture
 Trade name : Hyfloc V21C

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

1.2.1. Relevant identified uses

Main use category : Product for water treatments

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

DERYPOL, S.A HQ:	Manufacturing:
C/Plató, n 6, Entlo, 5	C/Cal Gabatx, s/n
08021 Barcelona (Spain)	08520 Les Franqueses del Vallès (Spain)
Tel. +34 93 238 9090	Tel. +34 93 8496188
	regulatory@derypol.com

1.4. Emergency telephone number

Emergency number : +34 93 849 6188
 9:00-13:00 h 15:00-17:00 h (GMT + 1)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP] Mixtures/Substances: SDS EU > 2015: According to Regulation (EU) 2015/830, 2020/878 (REACH Annex II)

Skin corrosion/irritation, Category 2	H315
Serious eye damage/eye irritation, Category 1	H318
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	H335

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05 GHS07

Signal word (CLP) :

Danger

Contains :

Sodium bentonite; Calcium hydroxide

Hazard statements (CLP) :

H315 - Causes skin irritation.
 H318 - Causes serious eye damage.
 H335 - May cause respiratory irritation.

Precautionary statements (CLP) :

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P305+P351+P338+P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a

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POISON CENTER or doctor.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

EUH-statements

: EUH070 - Toxic by eye contact.

2.3. Other hazards

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments

: Multicomponent mixture of cationic polyacrylamide and inorganic compounds

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Aluminium Sulfate substance with national workplace exposure limit(s) (ES); substance with a Community workplace exposure limit	CAS-No.: 10043-01-3 EC-No.: 233-135-0 REACH-no: 01-2119531538-36	25 – 50	Met. Corr. 1, H290 Eye Dam. 1, H318
Sodium bentonite substance with national workplace exposure limit(s) (ES)	CAS-No.: 1302-78-9 EC-No.: 215-108-5	15 – 25	Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
Calcium hydroxide substance with national workplace exposure limit(s) (DE, ES, FR, PT)	CAS-No.: 1305-62-0 EC-No.: 215-137-3 REACH-no: 01-2119475151-45	10 – 15	Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335
Activated carbon substance with a Community workplace exposure limit	CAS-No.: 7440-44-0 EC-No.: 931-328-0 REACH-no: 01-211948889-16	1 – 3	Not classified
Adipic acid substance with national workplace exposure limit(s) (ES, PT)	CAS-No.: 124-04-9 EC-No.: 204-673-3 EC Index-No.: 607-144-00-9 REACH-no: 01-2119457561-38	< 0.1	Eye Irrit. 2, H319

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general

: Do not perform any action that poses a risk if proper training is not held. Use the personal protective equipment necessary in the circumstances prevailing in the place of intervention.

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact

: Rinse the skin affected with plenty of water. Then wash it again with water and soap. In case of irritation, if it persists, get medical advice. In case of stained clothes take them out and wash them before using again.

First-aid measures after eye contact

: Rinse thoroughly with plenty of water, also under eyelids, at least for 15 minutes. Get medical assistance. It is necessary having a safety shower in the work area.

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First-aid measures after ingestion : If swallowed, seek medical advice immediately and show this container or label. Rinse mouth out with water. Do not induce vomiting.

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

Symptoms/effects after inhalation : Slight irritation of the respiratory tract.
Symptoms/effects after skin contact : Causes skin irritation.
Symptoms/effects after eye contact : Causes serious eye damage.
Symptoms/effects after ingestion : Gastrointestinal discomfort. Repeated ingestion of the product is considered highly unlikely route of exposure if working in adequate sanitary and hygiene conditions.
Symptoms/effects upon intravenous administration : Likely routes of exposure: skin and eye.

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

Treat symptomatically. Any ingredient in significant proportion according to the criteria laid down in Regulation 1272/2008 is mentioned in paragraph 3.2 of this Safety Data Sheet. Get medical attention urgently.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water, water spray, dry powder, carbon dioxide (CO₂), foam.
Unsuitable extinguishing media : None.

5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Under fire conditions thermal decomposition may produce: carbon oxides (CO_x) and calcium oxides.

5.3. Advice for firefighters

Precautionary measures fire : Use self-contained breathing apparatus and chemically protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Do not step on the spill and avoid contact with water. The affected area, in contact with water, will become extremely slippery.

6.1.1. For non-emergency personnel

Protective equipment : Wear recommended personal protective equipment.

6.1.2. For emergency responders

Protective equipment : Wear recommended personal protective equipment.

6.2. Environmental precautions

Avoid the ground to be contaminated, natural water courses and wastewater drainage. If contamination occurs inform the corresponding authorities immediately.

6.3. Methods and material for containment and cleaning up

For containment : Stop leak without risks if possible.
Methods for cleaning up : Clean up with a shovel and then with a brush and dustpan, avoid any rest of the product to remain in the spill area. Finally flush with pressured water and check the cleaning operation efficiency, otherwise the affected area will become extremely slippery.

6.4. Reference to other sections

See Section 8 to have information related to most appropriate personal protection equipment.

See Section 13 to have information related to waste management.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Avoid dust formation. Use local exhaust if dusting occurs. We recommend handling the product in a well ventilated area. Ensure you have a safety shower and eye wash fountain available.
- Hygiene measures : Use normal personal hygiene and housekeeping measures when handling any chemical product.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store under the local laws. Observe the label directions.
- Incompatible products : Oxidizing agent. Strong acids.
- Storage temperature : 5 – 35 °C

7.3. Specific end use(s)

For all the expected uses of the product the indications given above are considered appropriate.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1. National occupational exposure and biological limit values

Aluminium Sulfate (10043-01-3)

EU - Indicative Occupational Exposure Limit (IOEL)

IOEL TWA	2 mg/m ³ (calculated as Al)
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Activated carbon (7440-44-0)

EU - Indicative Occupational Exposure Limit (IOEL)

IOEL TWA	10 mg/m ³
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8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:

Use local exhaust systems if dusty atmospheres occur, otherwise general ventilation is sufficient.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:

Safety glasses with side-shields

8.2.2.2. Skin protection

Skin and body protection:

Use your standard work clothes. In case of long contact with the product and risk of splash of its dissolutions use full waterproof suit

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Hand protection:

Use latex gloves, or natural rubber gloves

8.2.2.3. Respiratory protection

Respiratory protection:

Use a complete face filter mask (mouth, nose and eyes) with a filter for particles

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:

Avoid spills that contaminate the underground, surface water streams and sewer system.

Other information:

You should always have a safety shower and eyewash in the area where the product is handled.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Colour	: Not available
Appearance	: Fine black powder.
Odour	: Almost odourless.
Odour threshold	: Not available
Melting point	: Not available
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Not flammable
Explosive limits	: Not applicable
Lower explosive limit (LEL)	: Not applicable
Upper explosive limit (UEL)	: Not applicable
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Not available
pH	: Not available
pH solution	: 0.3 (5 – 8) %
Viscosity, kinematic	: Not applicable
Solubility	: It forms water suspensions where some ingredients of the product are dissolved. There is no viscosity increase for increasing concentrations; the product flocculates on itself after a few minutes.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: Not available
Relative vapour density at 20 °C	: Not applicable
Particle size	: Not available
Particle size distribution	: Not available
Particle shape	: Not available
Particle aspect ratio	: Not available
Particle aggregation state	: Not available
Particle agglomeration state	: Not available
Particle specific surface area	: Not available
Particle dustiness	: Not available

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

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9.2.2. Other safety characteristics

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

This product does not present any dangerous reactivity if used, stored and handled in accordance with this MSDS recommendations.

10.2. Chemical stability

Stable under normal handling and storage conditions.

10.3. Possibility of hazardous reactions

No dangerous reaction known.

10.4. Conditions to avoid

None for safety reasons. For keeping the original properties of the product follow the recommendations given in Section 7.

10.5. Incompatible materials

Strong oxidizers may cause exothermic reactions. As a general rule we recommend avoiding the contact with strong chemical reagents, such as acids, bases, reductors and oxidizers.

10.6. Hazardous decomposition products

None under normal conditions. Thermal decomposition products (in case of fire) are indicated in Section 5.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral) : No data available.
Acute toxicity (dermal) : No data available.
Acute toxicity (inhalation) : No data available.

Aluminium Sulfate (10043-01-3)	
LD50 oral rat	2000 – 5000 mg/kg
LD50 dermal rabbit	> 5000 mg/kg
LC50 Inhalation - Rat	> 5 mg/l/4h

Calcium hydroxide (1305-62-0)	
LD50 oral rat	> 2000 mg/kg (OECD 425)
LD50 dermal rabbit	> 2500 mg/kg (OECD 402)

Adipic acid (124-04-9)	
LD50 oral rat	5560 mg/kg
LD50 dermal rabbit	7940 mg/kg
LC50 Inhalation - Rat (Dust/Mist)	> 7.7 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye damage.
Respiratory or skin sensitisation : This product is not expected to be sensitizing.
Germ cell mutagenicity : No data available.
Carcinogenicity : No data available.
Reproductive toxicity : No data available.

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Aluminium Sulfate (10043-01-3)	
NOAEL (animal/female, F1)	90 mg/kg bodyweight (calculated as Al) OECD TG422
STOT-single exposure	: May cause respiratory irritation.
Sodium bentonite (1302-78-9)	
STOT-single exposure	May cause respiratory irritation.
Calcium hydroxide (1305-62-0)	
STOT-single exposure	May cause respiratory irritation.
STOT-repeated exposure	: No data available.
Aspiration hazard	: No aspiration hazard is expected in normal use.

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

11.2.2. Other information

Potential adverse human health effects and symptoms	: No symptoms expected if the product is properly handled.
Other information	: Through our experience and according to the information available, the product is not harmful to health if handled correctly according to the recommendations given.

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: No data available.
Hazardous to the aquatic environment, long-term (chronic)	: No data available.

Aluminium Sulfate (10043-01-3)	
LC50 - Fish [1]	> 1000 mg/l Danio rerio
EC50 - Crustacea [1]	> 160 mg/l Daphnia magna
EC50 72h - Algae [1]	24 mg/l Pseudokirchneriella subcapitata / OECD TG 201 (calculated as Al)
Calcium hydroxide (1305-62-0)	
LC50 - Fish [1]	50.6 mg/l freshwater fish
LC50 - Fish [2]	457 mg/l freshwater fish
LC50 - Other aquatic organisms [2]	158 mg/l seawater invertebrates
EC50 - Other aquatic organisms [1]	49.1 mg/l freshwater invertebrates
EC50 72h - Algae [1]	184.57 mg/l freshwater algae
NOEC (chronic)	32 mg/l (sea water invertebrates, 14 days)
NOEC chronic algae	48 mg/l freshwater algae
Adipic acid (124-04-9)	
LC50 - Fish [1]	> 1000 mg/l Danio rerio
EC50 - Crustacea [1]	46 mg/l Daphnia magna (OCDE 202)
NOEC (chronic)	6.3 mg/l Daphnia magna (21 days)

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12.2. Persistence and degradability

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Persistence and degradability	No data available.
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Activated carbon (7440-44-0)

Persistence and degradability	Not biodegradable.
Biochemical oxygen demand (BOD)	0.001 – 0.002 g O ₂ /g substance
Chemical oxygen demand (COD)	2 g O ₂ /g substance

Adipic acid (124-04-9)

Biodegradation	70 % (28 days, OECD 301 D)
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12.3. Bioaccumulative potential

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Bioaccumulative potential	No data available.
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Adipic acid (124-04-9)

Partition coefficient n-octanol/water (Log Pow)	0.093 25 °C, pH 3.3
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12.4. Mobility in soil

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Ecology - soil	No information available.
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Other adverse effects : None to mention.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : If this product must be disposed as a waste the final user must do it accordingly with the European, national and local regulations. Use only authorised companies.

Additional information : Keep the same recommendations provided in Sections 7 and 8 of this MSDS. Furthermore, the user must consider the possible national/local regulations.

SECTION 14: Transport information

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

14.1. UN number or ID number

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

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14.2. UN proper shipping name

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

ADN

Transport hazard class(es) (ADN) : Not applicable

RID

Transport hazard class(es) (RID) : Not applicable

14.4. Packing group

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

Inland waterway transport

Not applicable

Rail transport

Not applicable

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

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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 REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list $\geq 0,1\%$ / SCL

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

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

Indication of changes			
Section	Changed item	Change	Comments
	SDS EU format according to COMMISSION REGULATION (EU) 2020/878	Added	
9.1	pH solution	Added	
9.1	Appearance	Modified	
16	Other information	Modified	

Other information : The latest version of the MSDS of this product can be obtained through the link <https://www.derypol.com/en/technical-documentation/>.

Full text of H- and EUH-statements	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Met. Corr. 1	Corrosive to metals, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H290	May be corrosive to metals.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
EUH070	Toxic by eye contact.

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]		
Skin Irrit. 2	H315	Calculation method
Eye Dam. 1	H318	Calculation method

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Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]

STOT SE 3	H335	Calculation method
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Safety Data Sheet applicable for regions : GB

Safety Data Sheet (SDS), EU

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.