

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

#### 1.1. Product identifier

Product form : Mixture  
 Trade name : HYFLOC K533

#### 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 : 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)

Not classified

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

No additional information available

#### 2.2. Label elements

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

EUH-statements : EUH210 - Safety data sheet available on request.

#### 2.3. Other hazards

Other hazards which do not result in classification : None known. Full text of H-statements: see section 16.

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 : Diallyldimethylammonium copolymer in aqueous solution

# HYFLOC K533

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Cationic polymer	CAS-No.: proprietary	15-20	Aquatic Chronic 3, H412

Full text of H-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general	: Beware of possible existing spills of product. See previously the Safety Data Sheet and act accordingly. 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	: In case of trouble go to the open air.
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.
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.
First-aid measures after ingestion	: Not expected to be toxic. Do not induce vomiting. Rinse mouth out with water. Get medical advice/attention.

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

Symptoms/effects after inhalation	: None expected.
Symptoms/effects after skin contact	: Slight irritation of the repeatedly exposed area.
Symptoms/effects after eye contact	: May include: itching, pain, redness, tears.
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.
Chronic symptoms	: None known.

#### 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, powder, foam (carbon dioxide (CO <sub>2</sub> )).
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: nitrogen oxides (NO <sub>x</sub> ) and carbon oxides (CO <sub>x</sub> ).
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#### 5.3. Advice for firefighters

Precautionary measures fire	: Do not attempt to take action without suitable protective equipment. Fight fire with normal precautions from a reasonable distance.
Protection during firefighting	: Use a self-contained breathing apparatus and also a protective suit.

### SECTION 6: Accidental release measures

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

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

Protective equipment	: Avoid eyes and skin contact; use personal protective equipment.
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# HYFLOC K533

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Emergency procedures : Stop leak if safe to do so. Restrict access to area. Remove immediately contaminated clothes. Wash with plenty of water and soap the contaminated surfaces. Use safety goggles, PVC gloves and waterproof boots.

### 6.1.2. For emergency responders

Protective equipment : Avoid eyes and skin contact; use personal protective equipment.  
Emergency procedures : Restrict access to area as appropriate until clean-up operations are complete. Use personal protective equipment recommended in Section 8 (Exposure Controls/Personal Protection). Stop or reduce any leaks if it is safe to do so. Ventilate spill area if possible. Ensure clean-up is conducted by trained personnel only. Do not touch spilled material. Have emergency equipment (for fires, spills, leaks, etc.) readily available.

## 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

Methods for cleaning up : For small spills use inert absorbent materials and remove with a shovel; then flush the affected area with pressured water. For large spills contain them with absorbent material and pump out the product to adequate containers; then flush the affected area with pressured water.

## 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.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : We recommend handling the product in a well ventilated area. Ensure you have a safety shower and eye wash fountain available. Keep absorbent material as a precaution against spills.  
Handling temperature : 5 – 35 °C  
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 : Avoid extreme temperatures (below "Minimum temperature" and above "Maximum temperature"). Keep in a covered place, with the drum well closed and within the "Recommended temperature range". Protect from freezing. Protect from sunlight.  
Incompatible products : Strong oxidizing agents. Strong bases. As a general rule we recommend avoiding the contact with strong chemical reagents, such as acids, bases, reductors and oxidizers.  
Storage temperature : 0 – 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

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

# HYFLOC K533

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### 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:

Natural ventilation is adequate in open areas. Provide mechanical ventilation in confined spaces.

### 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 a chemical resistant apron or full protective equipment depending on the handling level and contact risks with the product

##### Hand protection:

Use latex gloves, or natural rubber gloves

##### Other skin protection

##### Materials for protective clothing:

Use your standard work clothes. Safety foot-wear

#### 8.2.2.3. Respiratory protection

##### Respiratory protection:

Not necessary under normal conditions and provided good general ventilation

#### 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.

#### Consumer exposure controls:

Wash your hands and anybody area that has resulted exposed to the product before drinking, eating, using the services and end of the work period. Take off contaminated clothing and wash before reuse.

#### Other information:

You should always have a safety shower and eyewash in the area where the product is handled. Be aware of your exposure to products used in your workplace and act responsibly to avoid contaminating other areas. Try to develop good health habits, check with your company responsible for help.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Colour	: Not available
Appearance	: Yellowish to whitish translucent liquid.
Molecular mass	: High molecular weight.
Odour	: Almost odourless.
Odour threshold	: Perceptible only if you are very close to the product. When this happens take precautions as indicated in section 8.2 and find the source of odor and correct the situation.
Melting point	: < 0 °C
Freezing point	: Not available
Boiling point	: > 100 °C
Flammability	: Not available

# HYFLOC K533

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

Oxidising properties	: Not flammable.
Explosive limits	: Not available
Lower explosive limit (LEL)	: Not available
Upper explosive limit (UEL)	: Not available
Flash point	: > 200 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: > 100 °C
pH	: 3.4 – 6.5
Viscosity, kinematic	: < 15000 mm <sup>2</sup> /s
Viscosity, dynamic	: < 15000 cP
Solubility	: Dilutable in all proportions.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: < 0 (estimated value)
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 1.1 – 1.2 g/cm <sup>3</sup>
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle size	: Not applicable
Particle size distribution	: Not applicable
Particle shape	: Not applicable
Particle aspect ratio	: Not applicable
Particle aggregation state	: Not applicable
Particle agglomeration state	: Not applicable
Particle specific surface area	: Not applicable
Particle dustiness	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 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

There is no risk of polymerization.

### 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. Strong bases may provoke exothermic reactions.

### 10.6. Hazardous decomposition products

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

# HYFLOC K533

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### SECTION 11: Toxicological information

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

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: The product is not expected to be toxic by inhalation.

HYFLOC K533	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
Skin corrosion/irritation	: Although the product is not classified as irritant we note that prolonged contact may cause mild irritation. pH: 3.4 – 6.5
Serious eye damage/irritation	: Though it is not classified as irritant we warn you that it may cause a slight irritation. pH: 3.4 – 6.5
Respiratory or skin sensitisation	: This product is not expected to be sensitizing.
Germ cell mutagenicity	: No information available
Carcinogenicity	: No information available
Reproductive toxicity	: No information available
STOT-single exposure	: No information available
STOT-repeated exposure	: No information available
Aspiration hazard	: No aspiration hazard is expected in normal use.

HYFLOC K533	
Viscosity, kinematic	< 15000 mm <sup>2</sup> /s

#### 11.2. Information on other hazards

##### 11.2.1. Endocrine disrupting properties

##### 11.2.2. Other information

Potential adverse human health effects and symptoms	: The most likely routes of exposure are skin and/or eye contact, No symptoms expected if the product is properly handled, No effects whatsoever related to exposure to the product are known, Through our experience and according to the information available, the product is not harmful to health if handled correctly according to the recommendations given.
Other information	: No additional hazard is expected owing to the blend of the constituent ingredients of this product.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified
Additional information	: If water is contaminated with less than 1% of product we do not expect an irreversible effect on the primary and/or secondary water treatment. With further dilution this effect will be clearly reduced. Then the treatment will need to be adjusted to the new water characteristics. In case of spill follow the recommendation given in Section 13. AOX information: Product contains no organic halogens.

HYFLOC K533	
LC50 - Fish [1]	> 10 mg/l (Danio rerio, OECD 203)
EC50 - Crustacea [1]	10 mg/l (Daphnia magna, OECD 202)
EC50 72h - Algae [1]	Algal inhibition tests are not appropriate. The flocculating characteristics of the product interfere directly in the test medium preventing homogenous distribution which invalides the test.

# HYFLOC K533

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

### 12.2. Persistence and degradability

#### HYFLOC K533

Persistence and degradability	This product is not rapidly biodegradable. This product does not hydrolyse. In aqueous solution this product may be eliminated by flocculation and precipitation. It is easily removed from the aqueous media in presence of suspended matter.
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### 12.3. Bioaccumulative potential

#### HYFLOC K533

Partition coefficient n-octanol/water (Log Pow)	< 0 (estimated value)
Bioaccumulative potential	not bioaccumulable.

### 12.4. Mobility in soil

#### HYFLOC K533

Ecology - soil	It may be easily removed by an abiotic process of adsorption.
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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. Drums and residual product may be rinsed out with water. Use washing water in the process where the product is applied as dilution water.. Then the empty container will be disposed taking into account Section 13.1. Furthermore, the user must consider the possible national/local regulations.
Additional information	: Keep the same recommendations provided in Sections 7 and 8 of this MSDS. Refer to Section 2 of this Safety Data Sheet.

## 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

### 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

# HYFLOC K533

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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

## 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

Contains no REACH Annex XIV substances



# HYFLOC K533

## Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878

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	

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	
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
H412	Harmful to aquatic life with long lasting effects.
EUH210	Safety data sheet available on request.

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.