

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

#### 1.1. Product identifier

Product form : Mixture  
Trade name : Hyfloc XT154

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

##### 1.2.1. Relevant identified uses

Function or 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)

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 : Spills will produce extremely slippery surfaces in case of contact with water.

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 : Powder cationic polyacrylamide

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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]
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	≤2,5	Eye Irrit. 2, H319
Sulfamic acid	EC-No.: 226-218-8 REACH-no: 01-2119488633-28	≤2,5	Skin Irrit. 2, H315 Eye Irrit. 2, H319 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	: 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	: Go to the open air. In case of persistent trouble get medical attention and provide this Material Safety Data Sheet to your physician.
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 immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum).
First-aid measures after ingestion	: Do not induce vomiting. Rinse mouth out with water. Take medical advice.

### 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	: 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	: Some hazardous gases can be released, mainly: carbon oxides (Cox) and nitrogen oxides (Nox). In case of combustion in a poor oxygen atmosphere some vapors of hydrochloric acid and hydrocyanic acid can be formed.
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### 5.3. Advice for firefighters

Precautionary measures fire	: Fight fire with normal precautions from a reasonable distance.
Firefighting instructions	: In case of fire extinguishing all means are permitted. In case of water, careful not to get into drains, pipes or channels to ensure that water is not contaminated.
Protection during firefighting	: Self-contained breathing apparatus. Complete protective clothing.

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Other information : Spills produce extremely slippery surfaces.

### SECTION 6: Accidental release measures

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

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

Protective equipment : Do not step on the spill and avoid contact with water. The affected area, in contact with water, will become extremely slippery. Wear recommended personal protective equipment.

Emergency procedures : 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. 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.

Measures in case of dust release : No special precautions required.

##### 6.1.2. For emergency responders

Protective equipment : Use personal protective equipment. Keep away from people without protection. Slipping hazard if spilled load. Avoid contact with eyes and skin. Do not breathe vapors or spray mist. Personal protective equipment, see section 8.

Emergency procedures : Stop leak if safe to do so.

#### 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 : 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.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with eyes, skin and clothing. 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. Use normal personal hygiene and housekeeping measures when handling any chemical product.

Handling temperature : 5 – 35 °C

Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

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

Technical measures : Store in cool, dry, well ventilated place. Keep the product in its original containers tightly closed. Avoid static discharges.

Storage conditions : Keep in a covered place. Store in a well ventilated and cool place, away from heat and frost, in closed containers in accordance with safety standards. Instruct as storage standards.

Incompatible materials : Oxidising agents.

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.

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### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

##### 8.1.1. National occupational exposure and biological limit values

Adipic acid (124-04-9)	
Portugal - Occupational Exposure Limits	
Local name	Ácido adípico
OEL TWA	5 mg/m³
Spain - Occupational Exposure Limits	
Local name	Ácido adípico
VLA-ED (OEL TWA) [1]	5 mg/m³

##### 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:

Natural ventilation is adequate under normal handling conditions. Use local exhaust systems in case of mists and/or aerosols.

##### 8.2.2. Personal protection equipment

###### 8.2.2.1. Eye and face protection

###### Eye protection:

Safety glasses with side-shields. Do not use contact lenses

###### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing. Safety foot-wear

###### Hand protection:

Protective gloves made of PVC

###### Other skin protection

###### Materials for protective clothing:

Wear suitable protective clothing

###### 8.2.2.3. Respiratory protection

###### Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended

###### 8.2.2.4. Thermal hazards

No additional information available

##### 8.2.3. Environmental exposure controls

###### Environmental exposure controls:

Avoid release to the environment.

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### Consumer exposure controls:

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. 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. 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	: white.
Appearance	: White granulated solid.
Odour	: The product can hardly be detected by odor, earlier dust atmospheres will evicence their inappropriate presence. Take protective measures listed in section 8.2, find the cause and correct it.
Odour threshold	: Not available
Melting point	: > 100 °C
Freezing point	: Not available
Boiling point	: Not available
Flammability	: Formation of explosive atmospheres is not foreseen.
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	: > 200 °C
pH	: 2.5 – 4.5 (5 g/L solution)
pH solution	: Not available
Viscosity, kinematic	: Not applicable
Solubility	: Water soluble. Concentrations above 3% become very viscous. Product solubility limit depend on dissolution conditions (concentration, pH, temperature, preparation system - agitation).
Partition coefficient n-octanol/water (Log Kow)	: < 0
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: Not available
Relative density	: 0.6 – 0.9
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

#### 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.

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### 10.2. Chemical stability

Stable under normal handling and storage conditions.

### 10.3. Possibility of hazardous reactions

Strong oxidizers may cause exothermic reactions.

### 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

Oxidizing agent. 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

Some hazardous gases can be released, mainly: carbon oxides (Cox) and nitrogen oxides (Nox). In case of combustion in a poor oxygen atmosphere some vapors of hydrochloric acid and hydrocyanic acid can be formed.

## 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 XT154

LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 5000 mg/kg
<b>Adipic acid (124-04-9)</b>	
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	: Not irritant. pH: 2.5 – 4.5 (5 g/L solution)
Serious eye damage/irritation	: Testing conducted according to the Draize technique showed the material produces no corneal or iridial effects and only slight transitory conjunctival effects similar to those which all granular materials have on conjunctivae. pH: 2.5 – 4.5 (5 g/L solution)
Respiratory or skin sensitisation	: This product is not expected to be sensitizing.
Germ cell mutagenicity	: Not mutagenic.
Carcinogenicity	: Not carcinogenic.
Reproductive toxicity	: It is not toxic for reproduction
STOT-single exposure	: No known effect.
STOT-repeated exposure	: No known effect.
Aspiration hazard	: No aspiration hazard is expected in normal use.

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: No data available
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#### 11.2.2. Other information

Potential adverse human health effects and symptoms	: Through our experience and according to the information available, the product is not harmful to health if handled correctly according to the recommendations given.
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### 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

Hyfloc XT154	
LC50 - Fish [1]	5 – 10 mg/l (OECD 203 method)
EC50 - Crustacea [1]	20 – 50 mg/l (OECD 202 method)
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.

#### 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)

#### 12.2. Persistence and degradability

Hyfloc XT154	
Persistence and degradability	The product is expected to be readily biodegradable based on degradation data of the components. Abiotic degradation: Hydrolysis > 70% (28 days, pH 6 - 8, OECD 111). It is equivalent to a rapid biodegradability in accordance with Directive 67/548/CE, Annex VI. Data for a representative polymer. Hydrolysis derivatives are not harmful to aquatic organisms.

#### Adipic acid (124-04-9)

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

Hyfloc XT154	
Partition coefficient n-octanol/water (Log Kow)	< 0
Bioaccumulative potential	The product is not expected to bioaccumulate.

#### 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

Hyfloc XT154	
Ecology - soil	No information available.

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties : No data available

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### 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.

## 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

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



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### 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  $\geq 0,1\%$  / 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

##### Germany

Water hazard class (WGK)

: WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)

Hazardous Incident Ordinance (12. BImSchV)

: Is not subject of the Hazardous Incident Ordinance (12. BImSchV)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen

: None of the components are listed

SZW-lijst van mutagene stoffen

: None of the components are listed

NIET-limitatieve lijst van voor de voortplanting

: None of the components are listed

giftige stoffen – Borstvoeding

NIET-limitatieve lijst van voor de voortplanting

: None of the components are listed

giftige stoffen – Vruchtbaarheid

NIET-limitatieve lijst van voor de voortplanting

: None of the components are listed

giftige stoffen – Ontwikkeling

### 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
	Adverse effects on the environment caused by endocrine disrupting properties	Added	

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Indication of changes			
Section	Changed item	Change	Comments
	Adverse health effects caused by endocrine disrupting properties	Added	
	Acute toxicity (inhalation) - comment	Added	
	STOT-single exposure - comment	Added	
	STOT-repeated exposure - comment	Added	
	Skin corrosion/irritation - comment	Added	
	Respiratory or skin sensitisation - comment	Added	
	Reproductive toxicity - comment	Added	
	Germ cell mutagenicity - comment	Added	
	Carcinogenicity - comment	Added	
	Aspiration hazard - comment	Added	
	SDS EU format	Added	
	Flammability (solid, gas)	Added	
	Supersedes	Modified	
	Revision date	Modified	
	Issue date	Modified	
1.1	Trade name	Modified	
3	Composition/information on ingredients	Modified	
4.1	First-aid measures after skin contact	Modified	
4.1	First-aid measures after ingestion	Modified	
4.1	First-aid measures after eye contact	Modified	
4.2	Symptoms/effects after ingestion	Modified	
4.2	Symptoms/effects after eye contact	Modified	
4.3	Other medical advice or treatment	Modified	
5.1	Suitable extinguishing media	Modified	
5.2	Hazardous decomposition products in case of fire	Added	
5.3	Precautionary measures fire	Added	
6.1	Emergency procedures	Modified	
6.1	Emergency procedures	Modified	
6.3	Methods for cleaning up	Modified	
7.1	Precautions for safe handling	Modified	
7.1	Hygiene measures	Added	
7.2	Incompatible materials	Added	
7.2	Technical measures	Modified	
8.2	Environmental exposure controls	Added	
8.2	Consumer exposure controls	Added	
9.1	pH	Added	
10.3	Possibility of hazardous reactions	Modified	

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Indication of changes			
Section	Changed item	Change	Comments
10.5	Incompatible materials	Modified	
11.1	Potential adverse human health effects and symptoms	Added	
12.1	EC50 Daphnia 1	Modified	
12.1	LC50 fish 1	Modified	
12.2	Persistence and degradability	Modified	
12.3	Bioaccumulative potential	Added	
12.4	Ecology - soil	Added	
12.6	Other adverse effects	Added	
13.1	Additional information	Added	
15.1	Water hazard class (WGK)	Modified	
15.2	Chemical safety assessment	Added	
16	Other information	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
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H412	Harmful to aquatic life with long lasting effects.
EUH210	Safety data sheet available on request.

Safety Data Sheet applicable for regions : DE;DK;ES;FI;FR;IT;NL;PL;PT;GB;RU;SE

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.