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

1.1. Product identifier

Product form : Mixture
Trade name : Hyfloc FIC850

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 : Process aid industrial applications

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:
C/Plató, n 6, Entlo, 5
08021 Barcelona (Spain)
Tel. +34 93 238 9090

Manufacturing:
C/Cal Gabatx, s/n
08520 Les Franqueses del Vallès (Spain)
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 : Cationic acrylamide copolymer in hydrocarbon based emulsion.

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C12-C15, n-alkanes, isoalcanes <2%. aromatic substance with national workplace exposure limit(s) (ES); substance with a Community workplace exposure limit	EC-No.: 920-107-4 REACH-no: 01-2119453414-43	15 – 50	Asp. Tox. 1, H304
Isotridecanol, ethoxylated	CAS-No.: 69011-36-5 EC-No.: 500-241-6	< 5	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318

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 : Go to the open air and lie down on one side the affected person till he/she recovers. If difficult breathing persists get medical attention immediately.

First-aid measures after skin contact : Remove the maximum amount of product by using absorbent paper and then rinse with plenty of water. In case of persistent irritation get medical advise.

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 : Do not induce vomiting. Rinse mouth. Call a physician immediately.

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

Symptoms/effects after inhalation : No acute effects are expected, except for an allergic reaction to any of the individual product ingredients.

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 : May cause irritation of the digestive tract.

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, powder, foam (carbon dioxide (CO2)).

Unsuitable extinguishing media : Jet of Water.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Cool the containers with sprayed water. Avoid exposure to smoke and vapour provoked by the heating or combustion of the product.

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.

5.3. Advice for firefighters

Precautionary measures fire : Fight fire with normal precautions from a reasonable distance.

Firefighting instructions	:	In case of fire: stop leak if safe to do so. Do not enter fire area without proper protective equipment, including respiratory protection.
Protection during firefighting	:	Use self-contained breathing apparatus and chemically protective clothing.
Other information	:	Spills produce extremely slippery surfaces.

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.

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 es 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.

6.1.2. 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.

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 : Avoid contact with skin and eyes. Handle product in areas with suitable conditions and equipment. Foresee the possibility of a spill and take preventive measures, including: having absorbent material nearby, establish working conditions (racking circuit arrangement, valve position, clearwork area, etc..) to avoid that, in case of spillage, contamination of collectors, water courses or soil occurs.

Handling temperature : 5 – 30 °C

Hygiene measures : Use normal personal hygiene and housekeeping measures when handling any chemical product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : 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". On long storage periods at low temperatures (see "Critical temperature range") the product may undergo an emulsion degradation process. If this occurs we recommend mixing the product and moving it to a warmer storage zone.

Storage conditions : 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 products	:	Oxidizing agent. As a general rule we recommend avoiding the contact with strong chemical reagents, such as acids, bases, reductors and oxidizers.
Storage temperature	:	5 – 35 °C
Heat and ignition sources	:	Protect from freezing. Protect from sunlight. Keep away from ignition sources.

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

Hydrocarbons, C12-C15, n-alkanes, isoalcanes <2%. aromatic	
EU - Indicative Occupational Exposure Limit (IOEL)	
IOEL TWA	1200 mg/m³
Spain - Occupational Exposure Limits	
VLA-ED (OEL TWA) [1]	200 mg/m³
VLA-EC (OEL STEL)	10 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

Hyfloc FIC850	
DNEL/DMEL (additional information)	
Additional information	No information available
PNEC (additional information)	
Additional information	No information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

No additional information available

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection			
Type	**Field of application**	**Characteristics**	**Standard**
Safety glasses			EN 166

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 and its dissolutions.
Safety foot-wear

Hand protection:
Use latex gloves, or natural rubber gloves. Protective gloves made of PVC. Nitrile rubber gloves

Other skin protection

Materials for protective clothing:
Use your standard work clothes

8.2.2.3. Respiratory protection

Respiratory protection:
Not necessary under normal conditions and provided good general ventilation. If necessary use a face mask with a filter E2-P3. 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 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	:	Whitish opaque liquid.
Molecular mass	:	High molecular weight.
Odour	:	Hidrocarbon odor.
Odour threshold	:	Not available
Melting point	:	< 5 °C
Freezing point	:	Not available
Boiling point	:	> 100 °C
Flammability	:	Not available
Explosive properties	:	None expected.
Explosive limits	:	Not available
Lower explosive limit (LEL)	:	Not available
Upper explosive limit (UEL)	:	Not available
Flash point	:	Not flammable.
Auto-ignition temperature	:	Not available
Decomposition temperature	:	> 150 °C
pH	:	Not applicable
Viscosity, kinematic	:	> 20.5 mm²/s (40 ºC)
Viscosity, dynamic	:	500 – 2500 cP
Solubility	:	Water soluble. Solution concentration will be limited by its own viscosity.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	2.3 kPa (20 ºC)
Vapour pressure at 50 °C	:	Not available
Density	:	1 – 1.2 g/cm³
Relative density	:	Not available
Relative vapour density at 20 °C	:	0.804 (20 ºC)
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

Strong oxidizers may cause exothermic reactions.

10.4. Conditions to avoid

Protect from frost, heat and sunlight.

10.5. Incompatible materials

Strong oxidizers. Strong acids. Strong bases. 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) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : The product is not expected to be toxic by inhalation.

Hyfloc FIC850	
LD50 oral rat	> 5000 mg/kg (estimated value)
LD50 dermal rat	> 5000 mg/kg (estimated value)

Hydrocarbons, C12-C15, n-alkanes, isoalcanes <2%. aromatic	
LD50 oral rat	> 5000 mg/kg (OCDE 401)
LD50 dermal rat	> 5000 mg/kg (OCDE 402)
LC50 Inhalation - Rat	> 4.951 mg/l/4h (OCDE 403)

Isotridecanol, ethoxylated (69011-36-5)	
LD50 oral rat	500 – 2000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg

Skin corrosion/irritation : Not irritating to skin
pH: Not applicable

Serious eye damage/irritation : Not irritant. (OECD 437 method)
pH: Not applicable

Respiratory or skin sensitisation : Not sensitizing.

Germ cell mutagenicity : Not mutagenic.

Carcinogenicity : Not carcinogenic.

Reproductive toxicity : It is not toxic for reproduction

Hydrocarbons, C12-C15, n-alkanes, isoalcanes <2%. aromatic	
NOAEL (animal/male, F0/P)	300 mg/kg (OCDE 421)

STOT-single exposure : No known effect.

STOT-repeated exposure : No known effect.

Aspiration hazard : Due to its viscosity, this product does not represent any danger when aspired. No aspiration hazard is expected in normal use.

Hyfloc FIC850	
Viscosity, kinematic	> 20.5 mm²/s (40 °C)

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties : No data available

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 effects whatsoever related to exposure to the product are known,No symptoms expected if the product is properly handled,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) : No data available.

Additional information : At the habitual doses of this product no harm is expected for the microorganisms present in secondary treatments in waste water treatment plants.

Hyfloc FIC850	
LC50 - Fish [1]	10 – 100 mg/l (estimated value)
EC50 - Crustacea [1]	10 – 100 mg/l (estimated value)
EC50 72h - Algae [1]	Algal inhibition tests are not appropiate. The flocculating characteristics of the product inerfere directly in the test medium preventing homogenous distribution which invalides the test.

Hydrocarbons, C12-C15, n-alkanes, isoalcanes <2%. aromatic	
LC50 - Fish [1]	> 1000 mg/l (Oncorhynchus mykiss, OECD 203)
EC50 - Crustacea [1]	> 1000 mg/l (Daphnia magna, OECD 202)
EC50 72h - Algae [1]	> 1000 mg/l (Pseudokirchneriella subcapiata, OECD 201 method)
NOEC chronic fish	> 1000 mg/l (Oncorhyncus mykiss, 28 d)

Hydrocarbons, C12-C15, n-alkanes, isoalcanes <2%. aromatic	
NOEC chronic crustacea	> 1000 mg/l (Daphnia magna, 21 d)
NOEC chronic algae	> 1000 mg/l (Tetrahymena pyriformis, 48 h)

Isotridecanol, ethoxylated (69011-36-5)	
LC50 - Fish [1]	1 – 10 mg/l (OECD 203 method)
EC50 - Crustacea [1]	1 – 10 mg/l (OECD 202 method)
EC50 72h - Algae [1]	1 – 10 mg/l (OECD 201 method)
ErC50 algae	1 – 10 mg/l (OECD 201 method)
NOEC (chronic)	> 1 mg/l (OECD 202 method)

12.2. Persistence and degradability

Hyfloc FIC850	
Persistence and degradability	Readily biodegradable. Hydrolysis derivates are not harmful to aquatic organisms.
Biodegradation	> 70 % (pH > 6, 28 d)

Hydrocarbons, C12-C15, n-alkanes, isoalcanes <2%. aromatic	
Persistence and degradability	This product is not rapidly biodegradable. This product does not hydrolyse.

Isotridecanol, ethoxylated (69011-36-5)	
Persistence and degradability	Hardly biodegradable. This product does not hydrolyse.
Biodegradation	> 60 % (OECD 301B method)

12.3. Bioaccumulative potential

Hyfloc FIC850	
Bioaccumulative potential	The product is not expected to bioaccumulate.

Hydrocarbons, C12-C15, n-alkanes, isoalcanes <2%. aromatic	
Partition coefficient n-octanol/water (Log Pow)	3 – 6

Isotridecanol, ethoxylated (69011-36-5)	
Partition coefficient n-octanol/water (Log Pow)	> 3

12.4. Mobility in soil

Hyfloc FIC850	
Ecology - soil	No information available.

Isotridecanol, ethoxylated (69011-36-5)	
Partition coefficient n-octanol/water (Log Koc)	> 5000

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

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. Empty containers may be reused if properly clean. This operation is an exclusive responsability of the final customer of the product. 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.

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

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 ≥ 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 1, Slightly 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 giftige stoffen – Borstvoeding	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid	:	None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling	:	None of the components are listed

15.2. Chemical safety assessment

A chemical safety assessment has been carried out

SECTION 16: Other information

Indication of changes

Section	Changed item	Change	Comments
	Hazardous to the aquatic environment, long-term (chronic) - comment	Added	

Indication of changes			
Section	**Changed item**	**Change**	**Comments**
	Adverse effects on the environment caused by endocrine disrupting properties	Added	
	Adverse health effects caused by endocrine disrupting properties	Added	
	Acute toxicity (inhalation) - comment	Added	
	STOT-repeated exposure - comment	Added	
	SDS EU format	Added	
	Aspiration hazard - comment	Modified	
	Supersedes	Modified	
	Revision date	Modified	
	Issue date	Modified	
4.3	Other medical advice or treatment	Modified	
6.1	Emergency procedures	Modified	
7.2	Incompatible products	Modified	
7.2	Heat and ignition sources	Modified	
8.1	DNEL/DMEL (additional information)	Added	
8.1	PNEC (additional information)	Added	
8.2	Respiratory protection	Modified	
9.1	Explosive properties	Added	
9.1	pH	Modified	
9.1	Density	Modified	
10.3	Possibility of hazardous reactions	Modified	
11.1	LD50 oral rat	Modified	
12.1	LC50 fish 1	Modified	
12.1	EC50 Daphnia 1	Modified	
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	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H318	Causes serious eye damage.
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.