

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

1.1. Product identifier

Product form : Mixture
Trade name : Hyfloc FIC9700

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:	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]

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]

No labelling applicable

2.3. Other hazards

Other hazards not contributing to the classification : Spills will produce extremely slippery surfaces in case of contact with water.

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Comments : Cationic acrylamide copolymer in hydrocarbons based emulsion

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrocarbons, C12-C15, n-alkanes, isoalkanes <2%. aromatic	(EC no) 920-107-4 (REACH-no) 01-2119453414-43	20-30	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

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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. 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 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 out with water. Get immediate medical advice/attention.

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

Symptoms/injuries after inhalation	: None expected.
Symptoms/injuries after skin contact	: None expected.
Symptoms/injuries after eye contact	: redness, itching, tears.
Symptoms/injuries after ingestion	: Ingestion unlikely.
Symptoms/injuries 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. The main ingredients of the product are: hydrocarbon solvent, water, cationic polymer (soluble in water) and anionic and/or non-ionic surfactants. 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.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Water, hazy water, powder, foam (carbon dioxide (CO ₂)).
Unsuitable extinguishing media	: Jet of Water.

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 (CO _x) and nitrogen oxides (NO _x). 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

Firefighting instructions	: Evacuate area. Eliminate all ignition sources if safe to do so. Prevent fire-fighting water from entering environment.
Protection during firefighting	: Self-contained breathing apparatus.
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	: 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.

6.1.2. 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	: 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. Notify appropriate government, occupational health and safety and environmental authorities.

6.2. Environmental precautions

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

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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 : Provide adequate ventilation. 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".

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. Protect from freezing.

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 : 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

No additional information available

8.2. Exposure controls

Appropriate engineering controls:

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

Materials for protective clothing:

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

Hand protection:

Chemical resistant PVC gloves (to European standard EN 374 or equivalent)

Eye protection:

Safety glasses with side-shields

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

Respiratory protection:

Not necessary under normal conditions and provided good general ventilation

Environmental exposure controls:

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

Consumer exposure controls:

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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. 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
Appearance	: Whitish opaque liquid.
Colour	: Whitish opaque liquid.
Odour	: Aliphatic odour.
Odour threshold	: No data available
pH	: 3.5 - 6.5 (5 g/L)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: < 5 °C
Freezing point	: No data available
Boiling point	: > 100 °C
Flash point	: > 70 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: > 150 °C
Flammability (solid, gas)	: No data available
Vapour pressure	: 2.3 kPa (20 °C)
Relative vapour density at 20 °C	: 0.804 (20 °C)
Relative density	: 1 - 1.2
Density	: ≈ 1.03 g/cm ³
Solubility	: Water soluble. Solution concentration will be limited by its own viscosity.
Log Pow	: No data available
Viscosity, kinematic	: > 20.5 mm ² /s (40°C)
Viscosity, dynamic	: 500 - 2000 cP
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

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

Oxidizing agent.

10.6. Hazardous decomposition products

Thermal decomposition may produce : Hydrogen chloride. Nitrogen oxides. Carbon oxides (CO, CO₂). Ammonia solution. hydrogen cyanide, hydrocyanic acid.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

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

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LD50 oral rat	> 5000 mg/kg (estimated value)
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LD50 dermal rat	> 5000 mg/kg (estimated value)
Hydrocarbons, C12-C15, n-alkanes, isoalkanes <2%. aromatic	
LD50 oral rat	> 5000 mg/kg (OCDE 401)
LD50 dermal rat	> 5000 mg/kg (OCDE 402)
LC50 inhalation rat (mg/l)	> 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 irritant. pH: 3.5 - 6.5 (5 g/L)
Serious eye damage/irritation	: Not irritant. (OECD 437 method) pH: 3.5 - 6.5 (5 g/L)
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, isoalkanes <2%. aromatic	
NOAEL (animal/male, F0/P)	300 mg/kg (OCDE 421)
Specific target organ toxicity (single exposure)	: No known effect.
Specific target organ toxicity (repeated exposure)	: No known effect.
Aspiration hazard	: Due to its viscosity, this product does not represent any danger when aspired.
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Viscosity, kinematic	> 20.5 mm ² /s (40°C)
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

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified

Hyfloc FIC9700	
LC50 fish 1	10 - 100 mg/l (Results obtained on a similar product)
EC50 Daphnia 1	10 - 100 mg/l (Results obtained on a similar product)
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.
Hydrocarbons, C12-C15, n-alkanes, isoalkanes <2%. aromatic	
LC50 fish 1	> 1000 mg/l (Oncorhynchus mykiss, OECD 203)
EC50 Daphnia 1	> 1000 mg/l (Daphnia magna, OECD 202)
EC50 72h algae (1)	> 1000 mg/l (Pseudokirchneriella subcapitata, OECD 201 method)
NOEC chronic fish	> 1000 mg/l (Oncorhynchus mykiss, 28 d)
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 Daphnia 1	1 - 10 mg/l (OECD 202 method)
ErC50 (algae)	1 - 10 mg/l (OECD 201 method)
NOEC (chronic)	> 1 mg/l (OECD 202 method)

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12.2. Persistence and degradability

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Persistence and degradability	This product is rapidly biodegradable. Hydrolysis derivatives are not harmful to aquatic organisms.
Biodegradation	> 70 % (pH>6, 28d)

Hydrocarbons, C12-C15, n-alkanes, isoalkanes <2%. aromatic

Persistence and degradability	This product is not rapidly biodegradable. This product does not hydrolyse.
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Isotridecanol, ethoxylated (69011-36-5)

Persistence and degradability	This product is rapidly biodegradable.
Biodegradation	> 60 % (OECD 301B method)

12.3. Bioaccumulative potential

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Bioaccumulative potential	This is a high molecular weight, for this reason it will not permeate the membrane cell. There will be no bio-accumulation.
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Hydrocarbons, C12-C15, n-alkanes, isoalkanes <2%. aromatic

Log Pow	3 - 6
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Isotridecanol, ethoxylated (69011-36-5)

Log Pow	> 3
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12.4. Mobility in soil

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Ecology - soil	No information available.
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Isotridecanol, ethoxylated (69011-36-5)

Log Koc	> 5000
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12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other adverse effects : None to mention.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Residues must not be discharged into the sewage system and water conduits. Incinerate through a Licensed Site. Dispose of in accordance with Local Authority Regulations. Empty containers and residual product must not be washed out with water, this would provoke an inappropriate dissolution of the product and it would increase the amount of waste to dispose. Exhaust as much as possible the product and dispose the empty container 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.

SECTION 14: Transport information

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

14.1. UN 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
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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. Transport in bulk according to Annex II of MARPOL and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

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

Contains no REACH Annex XIV substances

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Indication of changes:

Section	Changed item	Change	Comments
2.1	Classification according to Regulation (EC) No. 1272/2008	Modified	

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	[CLP]		
2.2	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Modified	
11.1	Serious eye damage/irritation - comment	Added	

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

Safety Data Sheet applicable for regions : GB

SDS EU (REACH Annex II)

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