

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

1.1. Product identifier

Product form : Mixture
Trade name : HYPOL DW211

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]

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- and EUH-statements: see section 16.

Contains no PBT and/or vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

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 substance(s) are 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 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Comments : Diallyldimethylammonium chloride homopolymer in aqueous solution

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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]
Poly(dimethyldiallylammonium chloride)	CAS-No.: 26062-79-3	<25	Aquatic Chronic 3, H412

Full text of H- and EUH-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. Beware of possible existing spills of product. See previously the Safety Data Sheet and act accordingly.
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 immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum).
First-aid measures after ingestion	: Not expected to be toxic. Do not induce vomiting. Rinse mouth. 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.

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 ₂)).
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	: Do not attempt to take action without suitable protective equipment. Use self-contained breathing apparatus and chemically protective clothing.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Avoid eyes and skin contact; use personal protective equipment.
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6.1.1. For non-emergency personnel

No additional information available

6.1.2. For emergency responders

No additional information 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

- For containment : 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.
- Other information : Dispose of materials or solid residues at an authorized site.

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

- Additional hazards when processed : Wear personal protective equipment. 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. Use normal personal hygiene and housekeeping measures when handling any chemical product.
- Handling temperature : 5 – 35 °C

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. 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 sunlight. Protect from freezing.
- 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

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

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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 and its dissolutions

Hand protection:

Use latex gloves, or natural 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

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. Avoid release to the environment.

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.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Not available
Appearance	: Colourless to yellowish transparent liquid.
Molecular mass	: Low 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
Explosive properties	: Product is not explosive.
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: The product is not easily ignited
Auto-ignition temperature	: Not available
Decomposition temperature	: > 150 °C

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pH	: 4 – 7
Viscosity, kinematic	: Not available
Viscosity, dynamic	: 500 – 2000 cP
Solubility	: Dilutable in all proportions.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Partition coefficient n-octanol/water (Log Pow)	: < 0
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: ≈ 1.1 g/cm ³
Relative density	: Not available
Relative vapour density at 20°C	: Not available
Particle characteristics	: 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. 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.

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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: 4 – 7
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Serious eye damage/irritation	: Though it is not classified as irritant we warn you that it may cause a slight irritation. pH: 4 – 7
Respiratory or skin sensitisation	: This product is not expected to be sensitizing.
Germ cell mutagenicity	: No information available on this specific product, however by analogy, the product is considered to be: Not mutagenic.
Carcinogenicity	: No information available on this specific product, however by analogy, the product is considered to be: Not carcinogenic.
Reproductive toxicity	: No information available on this specific product, however by analogy, the product is considered to be: It is not toxic for reproduction
STOT-single exposure	: No data available.
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

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

11.2.2. Other information

Potential adverse human health effects and symptoms : 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 : The most likely routes of exposure are skin and/or eye contact. Prolonged eye contact may cause temporary irritation. Flush eyes immediately. Follow the safety recommendations of paragraph 4, 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	: 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.

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LC50 - Fish [1]	10 – 100 mg/l (Danio reior, OECD 203)
EC50 - Crustacea [1]	10 – 100 mg/l (Daphnia magna)
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.

12.2. Persistence and degradability

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Persistence and degradability	This polymer is not expected to be 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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Poly(dimethyldiallylammonium chloride) (26062-79-3)

Persistence and degradability	Rapidly degradable
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12.3. Bioaccumulative potential

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Bioconcentration factor (BCF REACH)	≈ 0
Partition coefficient n-octanol/water (Log Pow)	< 0
Bioaccumulative potential	not bioaccumulable.

12.4. Mobility in soil

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Organic Carbon Normalized Adsorption Coefficient (Log Koc)	≈ 0
Ecology - soil	It may be easily removed by an abiotic process of adsorption.

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 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.

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

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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

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

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

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PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

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
	Adverse effects on the environment caused by endocrine disrupting properties	Added	
	Adverse health effects caused by endocrine disrupting properties	Added	
	Reproductive toxicity - comment	Modified	
	Germ cell mutagenicity - comment	Modified	
	Carcinogenicity - comment	Modified	
	SDS EU format	Added	
	Supersedes	Modified	
	Revision date	Modified	
	Issue date	Modified	
3	Composition/information on ingredients	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:

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

Safety Data Sheet (SDS), EU

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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.