

Information Sheet

SECTION 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product identifier

Product name: **HYDROLENE® LTF/LJ**

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

Intended use: Product intended primarily for the plastics and packaging industries.

1.3. Details of the supplier of the safety data sheet

Name: **ECOPOL SPA**
Full address: **Polo Industriale Sergio Marchionne,1**
District and Country: **51013 Chiesina Uzzanese (Pistoia)**
ITALY
Tel. +39 0572 28 60 00

E-mail address of the competent person responsible for the Safety Data Sheet: **info@ecopol.com**

1.4. Emergency telephone number

For urgent inquiries refer to: **ECOPOL SPA**
Tel. +39 0572 28 60 00

SECTION 2: Hazards Identification

2.1. Classification of the substance or mixture

The product in the form of granules is not classified as hazardous pursuant to provisions set forth in EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements), nor it requires an SDS according to Article 31 of Regulation (EC) 1907/2006 (REACH).

The product marketed in the form of film is considered "article" under REACH (Reg. (EC) 1907/2006), therefore it is not subject to the obligation of the safety data sheet (Article 31 of the REACH Reg.), neither classification and labeling in accordance with Regulation 1272/2008 (CLP).

2.2. Label elements

Hazard pictograms: None

Signal words: None

Hazard statements: None

Precautionary statements: None

2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

SECTION 3 : Composition/Information on Ingredients

3.1. Substances

Information not relevant.

3.2. Mixtures

The product is mainly made of fully- and/or partially-hydrolyzed polyvinyl alcohol (CAS 9002-89-5; 25213-24-5); other components fall within the category of polyol plasticizers and process additives of organic and inorganic nature.

SECTION 4: First Aid Measures

4.1. Description of first aid measures

Not specifically necessary. Observance of good industrial hygiene is recommended.

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

No episodes of damage to health ascribable to the product have been reported.

4.3. Indication of any immediate medical attention and special treatment needed

Information not available.

SECTION 5: Firefighting Measures

5.1. Extinguishing media

SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

5.2. Special hazards arising from the substance or mixture

HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

5.3. Advice for firefighters

GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal firefighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

SECTION 6: Accidental Release Measures

6.1. Personal precautions, protective equipment and emergency procedures

Use breathing equipment if fumes or powders are released into the air. These indications apply for both processing staff and those involved in emergency procedures.

6.2. Environmental precautions

Avoid discharge into drains, water courses or onto the ground

6.3. Methods and material for containment and cleaning up

Confine using earth or inert material. Collect as much material as possible and eliminate the rest using jets of water. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

6.4. Reference to other sections

Any information on personal protection and disposal is given in sections 8 and 13.

SECTION 7: Handling and Storage

7.1. Precautions for safe handling

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

Make sure that the operator's hands are dry when handling. The product tends to reach the hygrometric balance with the surrounding environment, or to absorb the humidity of the environment where it is located. The product characteristics are strongly influenced by the amount of moisture absorbed.

7.2. Conditions for safe storage, including any incompatibilities

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

Hydrolene® products must be stored in dry, ventilated places where the temperature is kept at $20 \pm 10^{\circ}\text{C}$ and the relative humidity is kept at $40 \pm 10\%$. Temperature and humidity variations should be minimized in order to prevent shrinkage/deformation; the products must not get in contact with water or wet items as well as with any dissolving or reacting substance. The products must be used within 6 months from the delivery date.

The supplied product packaging must be kept intact until use. The best product performances are guaranteed with $40 \pm 5\%$ of relative humidity and with a film temperature of $23 \pm 2^{\circ}\text{C}$. If some film is leftover on the reel, or not in use during the operation, it should be repacked with the original packaging to maintain intact the product properties.

7.3. Specific end use(s)

Information not available.

SECTION 8: Exposure Controls/Personal Protection

8.1. Control parameters

Information not available.

8.2. Exposure controls

Comply with the safety measures usually applied when handling chemical substances.

General industrial hygiene practice. Because of the significant hygroscopic characteristic of the material, when brought to the plasticizing temperature (about 130°), it releases a certain amount of water vapor that can also develop at the exit of the machines such as the extrusion die as well as the packaging machine. The water vapor can also drag with it small amounts of plasticizers polyol contained in the material. In order to avoid condensation of fumes and vapors in the work environment, in compliance with the environmental hygiene standards, it is recommended the use of appropriate aspirators placed close to the emission source. Aspirated fumes and vapors can be condensed through water traps or dispersed outdoor if the local regulations permit. The amount of the emitted vapors may reach 3% of the weight of the extruded product.

HAND PROTECTION

None required.

SKIN PROTECTION

None required.

EYE PROTECTION

None required.

RESPIRATORY PROTECTION

None required, unless indicated otherwise in the chemical risk assessment.

ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Solid (film or granules)
Colour	White to light yellow; colored on request
Odour	Slight acetic acid odor
Odour threshold	Not available
pH	Not available
Melting point / freezing point	Not available
Initial boiling point	Not applicable
Boiling range	Not available
Flash point	Not applicable
Evaporation rate	Not available
Flammability of solids and gases	Not available
Lower inflammability limit	Not available
Upper inflammability limit	Not available
Lower explosive limit	Not available
Upper explosive limit	Not available
Vapour pressure	Not available
Vapour density	Not available
Relative density	1,15 – 1,35 g/cm ³
Solubility	Soluble in water
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available
Viscosity	Not available
Explosive properties	Not explosive
Oxidising properties	Not oxidising

9.2. Other information

Information not available.

SECTION 10: Stability and Reactivity

10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

10.2. Chemical stability

The product is stable in normal conditions of use and storage.

10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

10.4. Conditions to avoid

Contact with flames and strong oxidizing agents. Exposure to direct sunlight can affect the quality of the product.

Temperature and humidity variations should be minimized in order to prevent shrinkage/deformation; the products must not get in contact with water or wet items as well as with any dissolving or reacting substance.

10.5. Incompatible materials

Strong oxidizing agents. Avoid contact with components that may negatively affect the product's solubility :Borates; Cupric salts; Aluminium and Zinc salts; Titanium salts and Esters; Chromates, Dichromates, Vanadates; Germanates; Tripolyphosphates, Sodium phosphate; Sodium metasilicates; Isocyanuric acid ; Sodium sulfate ; Sodium hypochlorite ; Dicarboxylic acids; isocyanates; Anhydrides (e.g. Tetrahydrophthalic anhydride); Aromatic aldehydes; Acetaldehyde, Butyraldehyde, Benzaldehyde, Glyoxal and Glutaraldehyde; Chloroaldehydic acids; Formamide and Dimethylformamide; Catechol, Resorcinol and derivatives.

10.6. Hazardous decomposition products

Information not available.

SECTION 11: Toxicological Information

11.1. Information on toxicological effects

According to currently available data, this product has not yet produced health damages. Anyway, it must be handled according to good industrial practices.

SECTION 12: Ecological Information

Use this product according to good working practices.

12.1. Toxicity

Aquatic organism / Test method	Result
Algae (<i>Pseudokirchneriella Subcapitata</i>) / OECD-201	EC50 (72h) > 2700 mg/L
Daphnia (<i>Daphnia Magna</i>) / OECD-202	EC50 (48h) > 5000 mg/L
Fish (<i>Brachydanio Rerio</i>) / OECD-203	LC50 (96h) > 5000 mg/L

12.2. Persistence and degradability

Test method	Biodegradability result
OECD 301-B	> 70% after 28 days and fulfilled 10-d windows for ready biodegradability

12.3. Bioaccumulative potential

Information not available.

12.4. Mobility in soil

Information not available.

12.5. Results of PBT and vPvB assessment

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

12.6. Other adverse effects

Information not available.

SECTION 13: Disposal Considerations

13.1. Waste treatment methods

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorized waste management firm, in compliance with national and local regulations.

Solid residues may be suitable for disposal in an authorized landfill site.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

SECTION 14: Transport Information

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

Not applicable.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Not applicable.

14.6. Special precautions for user

Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Information not relevant.

SECTION 15: Regulatory information

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

Seveso category	None
Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006	None
Substances in Candidate List (Art. 59 REACH)	None
Substances subject to authorization (Annex XIV REACH)	None
Substances subject to exportation reporting pursuant to (EC) Reg. 649/2012	None
Substances subject to the Rotterdam Convention	None
Substances subject to the Stockholm Convention	None.
Healthcare controls	Information not available
German regulation on the classification of substances hazardous to water (VwVwS 2005).	WGK 1: Low hazard to waters

15.2. Chemical safety assessment

No chemical safety assessment has been processed for the mixture and the substances it contains.

SECTION 16: Other information

LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- EC50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level

- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German)

GENERAL BIBLIOGRAPHY:

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
 2. Regulation (EU) 1272/2008 (CLP) of the European Parliament
 3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
 4. Regulation (EU) 2015/830 of the European Parliament
 5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
 6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
 7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
 8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
 9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
 10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
 11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
 12. Regulation (EU) 2016/1179 (IX Atp. CLP)
 13. Regulation (EU) 2017/776 (X Atp. CLP)
- The Merck Index. - 10th Edition
 - Handling Chemical Safety
 - INRS - Fiche Toxicologique (toxicological sheet)
 - Patty - Industrial Hygiene and Toxicology
 - N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
 - IFA GESTIS website
 - ECHA website
 - Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product. This document must not be regarded as a guarantee on any specific product property. The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses. Provide appointed staff with adequate training on how to use chemical products.

Changes from the previous revision.

Changes have been made to the following sections:

01/06/07/09/10/12/16