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**INFORMATION NOTE ABOUT PRODUCT SAFETY**

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**REPSOL RESISTEX®**  
**1810FEXP1,1810FGEXP2,1810FGEXP3,1810FGEXP4,1810FGEXP5,1810FGEXP**  
**6,1820FGEXP2,1835FEXP2,1835FEXP3,1835FEXP4**  
**MF1810N1EXP,MF1810N2EXP,MF1810N3EXP**

**SECTION 1. Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

|                                     |                                                                                                                                                                   |
|-------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Commercial name</b>              | REPSOL RESISTEX®<br>1810FEXP1,1810FGEXP2,1810FGEXP3,1810FGEXP4,1810FGEXP5,1810FGEXP6,1820FGEXP2,1835FEXP2,1835FEXP3,1835FEXP4 MF1810N1EXP,MF1810N2EXP,MF1810N3EXP |
| <b>Chemical name</b>                | Polyethylene.                                                                                                                                                     |
| <b>Synonyms</b>                     | N/A                                                                                                                                                               |
| <b>CAS</b>                          | N/A                                                                                                                                                               |
| <b>EC (EINECS)</b>                  | N/A                                                                                                                                                               |
| <b>Index No (annex VI)</b>          |                                                                                                                                                                   |
| <b>Regulation EC No (1272/2008)</b> | N/A                                                                                                                                                               |
| <b>Registration Number</b>          | N/A                                                                                                                                                               |
| <b>Authoritation Number</b>         | N/A                                                                                                                                                               |

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

Consult technical information.

**1.3 Details of the supplier of the information note about product safety**

|                       |                                         |
|-----------------------|-----------------------------------------|
| <b>Company</b>        | REPSOL QUÍMICA, S.A.                    |
| <b>Address</b>        | Méndez Álvaro, 44 28045 - MADRID, Spain |
| <b>Phone</b>          | +34 917538000/+34 917538100             |
| <b>Fax</b>            | +34 902303145                           |
| <b>e-mail address</b> | SDSChemicals@repsol.com                 |

**SECTION 2. Hazards identification**

|                                                       |                           |
|-------------------------------------------------------|---------------------------|
| <b>2.1 Classification of the substance or mixture</b> | <b>2.2 Label elements</b> |
|-------------------------------------------------------|---------------------------|

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| <b>CLASSIFICATION<br/>Reg.(CE)1272/2008(CLP)</b> | <b>LABELLING</b>                |     |
|--------------------------------------------------|---------------------------------|-----|
| N/A                                              | <b>Pictograms</b>               | N/A |
|                                                  | <b>Signal word</b>              | N/A |
|                                                  | <b>Hazard statements</b>        | N/A |
|                                                  | <b>Supplemental information</b> | N/A |
|                                                  | <b>Precautionary statements</b> | N/A |

- **Supplementary elements which must be displayed on the labels**

N/A

- **Special packaging requirements**

**Containers which must be provided with a child safety seal:**

Not applicable

**Tactile hazard warning:**

Not applicable

### 2.3 Other hazards

Results of the assessment of PBT and vPvB in the product, in accordance with the criteria set out in Annex XIII of REACH, can be found in Section 12.5 of this information note about product safety.

Please refer to Sections 5, 6 and 7 of this information note about product safety for information on other dangers, different from classification dangers but which may contribute to the overall hazards of the product.

## SECTION 3. Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Metallocene linear polyethylene.

| <b>Dangerous components Reg. (CE) 1272/2008 (CLP)</b> | <b>Concentration (%)</b> | <b>Hazard statements</b> |
|-------------------------------------------------------|--------------------------|--------------------------|
| N/A                                                   |                          |                          |

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### SECTION 4. First aid measures

#### 4.1. Description of first aid measures

**Inhalation:** Move the affected person to fresh air.  
Administer oxygen if necessary.

**Ingestion/Aspiration:** It is not frequent.  
Intestinal absorption is very low.

**Contact skin:** In case of burns from contact with melted product, quickly cool material with abundant water.  
Do not remove the solidified product from the burn.  
Seek medical care.

**Contact eyes:** In case of burns from contact with melted product, quickly cool material with abundant water.  
Do not remove the solidified product from the burn.  
Seek medical care.  
In case of eye contact with polymer powder, wash with plenty of water, keeping eyelids open for at least 15 minutes.

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

**Inhalation:** Powder low-density Polyethylene may cause irritation to throat and nose.  
Melted polymer vapors may cause irritation to the respiratory tract.  
LC50: 12g/m<sup>3</sup>/30min (inhalation-mouse) (Polyethylene).

**Ingestion/Aspiration:** This type of exposure is easy to prevent and infrequent.  
Not toxic if swallowed.

**Contact skin:** Contact with molten product may cause burns.

**Contact eyes:** Vapors from melted product and powdery material may be irritating to the eyes.  
Contact with molten product may cause burns.

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

Seek medical care.

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### SECTION 5. Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media:** AFFF foam, dry chemicals powder, CO<sub>2</sub>, and water spray.

**Unsuitable extinguishing media:** Water applied directly in jet stream may disperse the product.

#### 5.2. Special hazards arising from the substance or mixture

**Combustion products:** Complete combustion: CO<sub>2</sub>, H<sub>2</sub>O. Complete combustion: CO and other toxic gases.

**Special measures:** N/A

**Special hazards:** Molten polymer may spread fire. Fire may produce irritating gases.

#### 5.3. Advice for firefighters:

Clothing and gloves resistant to fire and SCBA.

### SECTION 6. Accidental release measures

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

**Personal precautions:** Avoid contact with melted product and inhalation of vapors.  
Prevent inhalation of the polymer powder.  
Keep unnecessary people away.

**Personal protection:** Use protective mask in presence of polymer powder.  
In case of high concentrations of vapors from melted product, respiratory protective mask is recommended.  
Wear safety goggles and waterproof gloves to avoid direct contact with melted product.

#### 6.2. Environmental precautions

Avoid spillage into sewers and public waterways.  
Avoid product dispersion.

#### 6.3. Methods and material for containment and cleaning up

To prevent slipping and sliding, spills should be collected with shovels or other means and placed into suitable containers.

#### 6.4. Reference to other sections

Section 8 contains more detailed advice on personal protective equipment and section 13 on

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waste disposal.

### SECTION 7. Handling and storage

#### 7.1. Precautions for safe handling

**General precautions:** Do not smoke, eat, or drink while handling product.  
Wear appropriate protective equipment in the areas of handling molten product.  
Remove all sources of ignition in the area of product handling and storage.  
Transport equipment should be properly grounded (static charge accumulation by friction).  
Ensure safe systems of work.

**Specific conditions:** Good local exhaust ventilation system.  
Protective mask in the presence of the polymer powder and molten product vapors.

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

**Temperature and decomposition products:** The product is stable under normal conditions.

**Dangerous reactions:** N/A

**Storage conditions:** Store at room temperature and protect it from sunlight, in cool and well-ventilated places, in properly labeled and sealed containers.  
Properly labeled and sealed containers.  
Protect against fire, and eliminate all potential sources of ignition.  
Polymer has a marked tendency to build up static charge when transferred by pneumatic transport, so proper grounding should be ensured.  
Never weld in storage areas without proper precautions.

**Incompatible materials:** Fluorides. Fuming sulfuric and nitric acids and other oxidizing agents attack it slowly. It should not be used for aggressive liquids in the presence of tension.

#### 7.3. Specific end use(s)

See section 1 or exposure scenario

### SECTION 8. Exposure controls/personal protection

#### 8.1 Control parameters

N/A

**DNEL**                      N/A

**PNEC**                      N/A

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### 8.2 Exposure controls

Local appropriate ventilation. Do not smoke and avoid all ignition sources. Avoid prolonged contact and inhalation of vapors.

#### Individual protection measures, such as personal protective equipment

**Respiratory protection:** Respiratory protective mask when melted product vapors or dust are present.

**Skin protection:** Gloves, appropriate footwear and clothing.

**Eye/face protection:** Safety goggles to avoid splashes when handling melted product.

**Other protective equipment:** Showers and eye-washers in the work area.

**Specific hygiene measures:** Good work practices and the adoption of good personal hygiene measures reduce unnecessary exposures. Showers should be used. Use soap and no other solvents. Use skin reconditioning cream after work.

**Medical Conditions Aggravated by Exposure:** N/A

#### Environmental exposure controls:

Product should not reach the environment through wastewater or sewage. Measures to take in case of accidental release can be found in Section 6 of this information note about product safety.

## SECTION 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance: Solid (pellets).

Odour: Odorless.

Odour threshold: N/A (\*)

Colour: N/A (\*)

pH: N/A (\*)

Melting point/freezing point: 110-140 °C

Initial boiling point and boiling range: N/A (\*)

Flash point: >300 °C (polyethylene)

Evaporation rate: N/A (\*)

Flammability (solid, gas): N/A (\*)

Upper/lower flammability or explosive limits: N/A (\*)

Vapour pressure: N/A (\*)

Vapour density: N/A (\*)

Density: 0.9-1.0 g/cm<sup>3</sup>

Solubility(ies): At temperatures near to melting point the product is soluble in benzene, xylene, toluene, trichloroethylene, tetrachloromethane (Polyethylene).

Partition coefficient: n-octanol/water: N/A (\*)

Auto-ignition temperature: N/A (\*)

Decomposition temperature: N/A (\*)

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Viscosity: N/A (\*)  
Explosive properties: N/A (\*)  
Oxidising properties: N/A (\*)

### 9.2 Other information

Water solubility: Insoluble

(\*) No data available at the time of writing or because it is not applicable due to the nature and danger of the product.

## SECTION 10. Stability and reactivity

**10.1. Reactivity:** N/A

**10.2. Chemical stability:** Stable material at room temperature. PEBD has a high resistance to water and aqueous solutions of organic salts, as well as to diluted acids and alkalis. Below 60°C PEBD is insoluble in organic solvents, but it absorbs hydrocarbons and their chlorinated derivatives.

**10.3. Possibility of hazardous reactions:** Fluorides. Fuming sulfuric acid, nitric acid and other oxidizing agents can attack it slowly, particularly at high temperatures. It should not be used for aggressive liquids in the presence of tension.

**10.4. Conditions to avoid:** N/A

**10.5. Incompatible materials:** N/A

**10.6. Hazardous decomposition products:** Decomposition products: At temperatures over 300°C the product decomposes emitting toxic and irritating fumes and occasionally small amounts of acrolein and formaldehyde may appear. Complete combustion: CO<sub>2</sub>, and H<sub>2</sub>O. Incomplete combustion: CO, soot, aldehydes, ketones, hydrocarbons and volatile fatty acids.

## SECTION 11. Toxicological information

### 11.1. Information on toxicological effects

The provided toxicological information results from the application of Annexes VII to XI of Regulation 1907/2006 (REACH).

**Acute toxicity:** N/A

**Skin corrosion/irritation:** N/A

**Serious eye damage/irritation:** N/A

**Respiratory or skin sensitisation:** N/A

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**Germ cell mutagenicity:** N/A

**Carcinogenicity:** IARC classification: Group 3 (The product is not classifiable as to its carcinogenicity to humans).

Product rating corresponds to the comparison of the results from the toxicological studies with the criteria set out in Regulation (EC) No 1272/2008 for CMR, categories 1A and 1B.

**Reproductive toxicity:** No evidence of reproductive toxicity in mammals.

**STOT-single exposure:** N/A

**STOT-repeated exposure:** N/A

**Aspiration hazard:** N/A

### SECTION 12. Ecological information

**12.1. Toxicity:** No data on toxicity to aquatic organisms.

**12.2. Persistence and degradability:** Low density polyethylene has insoluble long chain hydrocarbons. This causes it not to biodegrade and have a high persistence.

**12.3. Bioaccumulative potential:** There are no data.

**12.4. Mobility in soil:** There are no data.

**12.5. Results of PBT and vPvB assessment:** This mixture contains no substance considered to be PBT or vPvB.

**12.6. Other adverse effects:** N/A

### SECTION 13. Disposal considerations

#### 13.1. Waste treatment methods

**Disposal:** Recycle material when possible. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with fume treatment.

**Handling:** Labeled and sealed containers.

**Provisions:** Establishments and companies which recover, dispose, store, transport or handle waste should comply with Dir. 2008/98/EC on waste, or other local, national or community provisions.

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### SECTION 14. Transport information

**14.1. UN number:** N/A

**14.2. UN proper shipping name:**  
N/A

**14.3. Hazard classes for transportation:** N/A

**14.4. Packing group**

**ADR/RID:** N/A

**IATA-DGR:** N/A

**IMDG:** N/A

**14.5. Environmental hazards**

**ADR/RID:** N/A

**IATA-DGR:** N/A

**IMDG:** N/A

**14.6. Special precautions for user**

Stable at room temperature during transport. To avoid spilling, transport in secure, properly sealed containers.

**14.7. Transport in bulk in accordance with appendix II of the Marpol agreement and the IBC code**

No category assigned for the IBC code.

### SECTION 15. Regulatory information

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

COMMISSION REGULATION (EU) No 2015/830.

Globally Harmonized System of Classification and Labelling of Chemicals (GHS).

Regulation (EC) No 1272/2008 of the European Parliament and the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures (CLP).

Regulation (EC) No 1907/2006 concerning Registration, Evaluation, Authorization and Restriction of Chemicals (REACH).

European Agreement concerning the international carriage of dangerous goods by road (ADR).

Regulation on the international transport of dangerous goods on the railway. (RID)

International maritime code of dangerous goods. (IMDG)

International Air Transport Association (IATA) regulation pertaining to air shipment.

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International Bulk Chemical Code (IMSBC Code), MARPOL 73/78.

### **Commission Regulation Other hazards**

Polyethylene (CAS# 9002-88-4) is listed in Chemical Inventory TSCA (EPA, June 1993).

### **15.2. Chemical safety assessment**

A chemical safety assessment has not been carried out.

## **SECTION 16. Other information**

### **Glossary**

MSDS: Material safety data sheet  
CAS: Chemical Abstract Service  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists.  
TLV: Threshold Limit Value  
TWA: Time Weighted Average  
STEL: Short-term Exposure Level  
REL: Recommendable Exposure Limit  
PEL: Permissible Exposure Limit  
INSHT: Instituto Nacional de Seguridad e Higiene en el Trabajo.  
VLA-ED: Environmental limit value - daily exposure  
VLA-EC: Limit environmental value - short exposure  
DNEL/DMEL: Derived no-effect level / Derivation of minimal effects levels  
PNEC: Predicted No Effect Concentration  
LD50: Lethal Dose Medium  
LC50: Lethal Concentration Medium  
EC50: Effective Concentration Medium  
IC50: Inhibitory Concentration Medium  
BOD: Biological Oxygen Demand.  
NOAEL: No observable adverse effect level  
NOEL: No observed effect level  
NOAEC: No observed adverse effect concentration  
NOEC: No observed effect concentration  
N/A: Not applicable  
|| - | : Changes from the last revision

### **Data Bases consulted**

EINECS: European Inventory of Existing Commercial Substances.  
TSCA: Toxic Substances Control Act, US Environmental Protection Agency.  
HSDB: US National Library of Medicine.  
RTECS: US Dept. of Health & Human Services.  
EINECS: European Inventory of Existing Commercial Substances.  
TSCA: Toxic Substances Control Act, US Environmental Protection Agency.  
HSDB: US National Library of Medicine.  
RTECS: US Dept. of Health & Human Services.

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### **Hazard Class-and-Category shown in the document**

N/A: Not applicable

Purchasing companies have an obligation to ensure that their employees are properly trained on the safe handling and use of the product in accordance with the guidelines contained in this information note about product safety.

Furthermore, companies purchasing this product are required to inform their employees, and individuals who could manipulate or use it within their facilities, about all indications included in the INFORMATION NOTE ABOUT PRODUCT SAFETY, in particular those relating to the product's risks to the health and safety of people and to the environment.

Safety Information Sheet/Fact Sheet prepared in compliance with Article 32 of Regulation (EC) 1907/2006 (REACH), in order to communicate information down the supply chain for substances on their own or in mixtures for which a safety data sheet is not required in the SDS format. Therefore, this document does not constitute a Material Safety Data Sheet (MSDS/SDS) according to Article 31 of REACH, given that for the purposes of REACH, it is not compulsory to provide a MSDS/SDS for the substance or mixture covered under this Safety Information Sheet/Fact Sheet.

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