

# SAFETY DATA SHEET

TRINSEO ITALIA S.R.L.  
SOCIO UNICO, SED. LEGALE.

Safety Data Sheet according to Reg. (EU) No 2020/878

**Product name:** STYRON™ 678E Clear Polystyrene

**Revision Date:** 14.12.2022

**Version:** 1.1

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TRINSEO ITALIA S.R.L. SOCIO UNICO, SED. LEGALE. encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

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

### 1.1 Product identifier

Trade name : STYRON™ 678E Clear Polystyrene

Product code : 000000000000343536

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

Use of the Substance/Mixture : A polystyrene plastic -, For industrial conversion as a raw material for manufacture of articles or goods.

### 1.3 Details of the supplier of the safety data sheet

**COMPANY IDENTIFICATION**  
TRINSEO ITALIA S.R.L.  
SOCIO UNICO, SED. LEGALE.  
VIA GRANDE 110  
57123 LIVORNO LI  
ITALY

### Customer Information Number:

+31 115 67 2601  
SDSQuestion@trinseo.com

### 1.4 EMERGENCY TELEPHONE NUMBER

**24-Hour Emergency Contact:** +(1)-703-741-5970

**Local Emergency Contact:** +(39)-0245557031 / 800-789-767

**tel. Number Poison Control Centre, Niguarda Hospital (MI)::** 02-66101029

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## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### Classification (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### 2.2 Label elements

#### Labelling (REGULATION (EC) No 1272/2008)

Not a hazardous substance or mixture according to Regulation (EC) No. 1272/2008.

### 2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

This product is a mixture.

CASRN / EC-No. / Index-No.	REACH Registration Number	Concentration	Component	Classification: REGULATION (EC) No 1272/2008
CASRN 9003-53-6 EC-No. Polymer Index-No. -	-	>= 94,0 - <= 100,0 %	Styrene, polymers	Not classified
CASRN 8042-47-5 EC-No. 232-455-8 Index-No. -	-	<= 6,0 %	White mineral oil (petroleum)	Not classified

If present in this product, any not classified components disclosed above for which no country specific OEL value(s) is(are) indicated under Section 8, are being disclosed as voluntarily disclosed components.

## SECTION 4: First aid measures

### 4.1 Description of first aid measures

#### General advice:

First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection). If potential for exposure exists refer to Section 8 for specific personal protective equipment.

**Inhalation:** Move person to fresh air and keep comfortable for breathing; consult a physician.

**Skin contact:** Wash off with plenty of water. Seek first aid or medical attention as needed. If molten material comes in contact with the skin, do not apply ice but cool under ice water or running stream of water. DO NOT attempt to remove the material from skin. Removal could result in severe tissue damage. Seek medical attention immediately. Suitable emergency safety shower facility should be immediately available.

**Eye contact:** Flush eyes with plenty of water; remove contact lenses after the first 1-2 minutes then continue flushing for several minutes. Only mechanical effects expected. If effects occur, consult a physician, preferably an ophthalmologist.

**Ingestion:** If swallowed, seek medical attention. May cause gastrointestinal blockage. Do not give laxatives. Do not induce vomiting unless directed to do so by medical personnel.

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

Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

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

**Notes to physician:** If burn is present, treat as any thermal burn, after decontamination. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

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## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media : Water fog or fine spray.  
Dry chemical fire extinguishers.  
Carbon dioxide fire extinguishers.  
Foam.

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

Specific hazards during fire-fighting : Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, do not permit dust to accumulate.  
Dense smoke is produced when product burns.

Hazardous combustion products : During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating.  
Combustion products may include and are not limited to:  
Carbon dioxide  
Carbon monoxide

### 5.3 Advice for firefighters

Special protective equipment for firefighters : Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves) If protective equipment is not available or not used, fight fire from a protected location or safe distance

Further information : Keep people away. Isolate fire and deny unnecessary entry  
Soak thoroughly with water to cool and prevent re-ignition.  
If material is molten, do not apply direct waterstream. Use fine water spray or foam.  
Cool surroundings with water to localize fire zone.  
Hand held dry chemical or carbon dioxide extinguishers may be used for small fires.

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## SECTION 6: Accidental release measures

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

Personal precautions : Spilled material may cause a slipping hazard.  
Keep unnecessary and unprotected personnel from entering

the area.

Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

## 6.2 Environmental precautions

Environmental precautions : Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

## 6.3 Methods and material for containment and cleaning up

Methods for cleaning up : Contain spilled material if possible.  
Sweep up.  
Collect in suitable and properly labeled containers.  
See Section 13, Disposal Considerations, for additional information.

**6.4 Reference to other sections:** References to other sections, if applicable, have been provided in the previous sub-sections.

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## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Advice on safe handling : No smoking, open flames or sources of ignition in handling and storage area.  
Good housekeeping and controlling of dusts are necessary for safe handling of product.  
Avoid breathing process fumes.  
Use with adequate ventilation.  
When appropriate, unique handling information for containers can be found on the product label.  
Workers should be protected from the possibility of contact with molten resin.  
Do not get molten material in eyes, on skin or clothing.  
Keep away from heat, sparks and flame.  
Pneumatic conveying and other mechanical handling operations can generate combustible dust. To reduce the potential for dust explosions, electrically bond and ground equipment and do not permit dust to accumulate. Dust can be ignited by static discharge.  
See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

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

Requirements for storage areas and containers : Store in a dry place. Store in accordance with good manufacturing practices.

**7.3 Specific end use(s):** See the technical data sheet on this product for further information.

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## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

If exposure limits exist, they are listed below. If no exposure limits are displayed, then no values are applicable.

Although some of the additives used in this product may have exposure guidelines, these additives are encapsulated in the product and no exposure would be expected under normal handling conditions.

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## 8.2 Exposure controls

**Engineering controls:** Use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

### Individual protection measures

**Eye/face protection:** Use safety glasses (with side shields). Safety glasses (with side shields) should be consistent with EN 166 or equivalent. If there is a potential for exposure to particles which could cause eye discomfort, wear chemical goggles. Chemical goggles should be consistent with EN 166 or equivalent. If exposure causes eye discomfort, use a full-face respirator (meeting standard EN 136) with organic vapor cartridge (meeting standard EN 14387).

### Skin protection

**Hand protection:** Chemical protective gloves should not be needed when handling this material. Consistent with general hygienic practice for any material, skin contact should be minimized. Use gloves to protect from mechanical injury. Selection of gloves will depend on the task. Use gloves with insulation for thermal protection (EN 407), when needed.

**Other protection:** No precautions other than clean body-covering clothing should be needed.

**Respiratory protection:** Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. Use an approved air-purifying respirator when vapors are generated at increased temperatures or when dust or mist is present.

Use the following CE approved air-purifying respirator: When dust/mist are present use a/an Particulate filter, type P2 (meeting standard EN 143). When combinations of vapors, acids, or dusts/mists are present use a/an Organic vapor cartridge with a particulate pre-filter, type AP2 (meeting standard EN 14387).

### Environmental exposure controls

See SECTION 7: Handling and storage and SECTION 13: Disposal considerations for measures to prevent excessive environmental exposure during use and waste disposal.

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## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance	:	Granules.
Colour	:	Clear
Odour	:	Odorless
Odour Threshold	:	No test data available
pH	:	Not applicable
Melting point/range	:	No test data available
Freezing point	:	Not applicable
Boiling point/boiling range	:	Not applicable
Flash point	:	Method: closed cup Not applicable
Evaporation rate	:	No test data available

Flammability (solid, gas)	:	Not expected to form explosive dust-air mixtures. Method: Literature
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Vapour pressure	:	Not applicable
Relative vapour density	:	Not applicable
Solubility(ies) Water solubility	:	negligible
Partition coefficient: n-octanol/water	:	No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).
Auto-ignition temperature	:	No test data available
Decomposition temperature	:	No test data available
Viscosity Viscosity, kinematic	:	Not applicable
Explosive properties	:	No test data available
Oxidizing properties	:	No test data available

## 9.2 Other information

Flammability (liquids)	:	Not expected to be a static-accumulating flammable liquid. Method: Literature
Molecular weight	:	No test data available
Particle size	:	Not determined
Self-ignition	:	Method: Literature The substance or mixture is not classified as pyrophoric.

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## SECTION 10: Stability and reactivity

**10.1 Reactivity:** No data available

**10.2 Chemical stability:** Stable under recommended storage conditions. See Storage, Section 7.

**10.3 Possibility of hazardous reactions:** Polymerization will not occur.

**10.4 Conditions to avoid:** Avoid temperatures above 300 °C  
Exposure to elevated temperatures can cause product to decompose.

**10.5 Incompatible materials:** None known.

**10.6 Hazardous decomposition products:** Decomposition products depend upon temperature, air supply and the presence of other materials.. Processing may release fumes and other decomposition

products. At temperatures exceeding melt temperatures, polymer fragments can be released. Fumes can be irritating.. Decomposition products can include trace amounts of: Combustible gases..

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## SECTION 11: Toxicological information

*Toxicological information appears in this section when such data is available.*

### 11.1 Information on toxicological effects

**Acute toxicity (represents short term exposures with immediate effects - no chronic/delayed effects known unless otherwise noted)**

#### **Acute oral toxicity**

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. May cause choking if swallowed.

Single dose oral LD50 has not been determined.

Typical for this family of materials.  
LD50, Rat, > 5 000 mg/kg Estimated.

#### **Information for components:**

##### **Styrene, polymers**

Single dose oral LD50 has not been determined.

##### **White mineral oil (petroleum)**

LD50, Rat, male and female, > 5 000 mg/kg OECD Test Guideline 401

#### **Acute dermal toxicity**

No adverse effects anticipated by skin absorption.

The dermal LD50 has not been determined.

Typical for this family of materials.  
LD50, Rabbit, > 2 000 mg/kg Estimated.

#### **Information for components:**

##### **Styrene, polymers**

The dermal LD50 has not been determined.

##### **White mineral oil (petroleum)**

LD50, Rabbit, male and female, > 2 000 mg/kg OECD Test Guideline 402 No deaths occurred at this concentration.

#### **Acute inhalation toxicity**

Dust may cause irritation to upper respiratory tract (nose and throat). Vapors released during thermal processing may cause respiratory irritation.

The LC50 has not been determined.,

#### **Information for components:**

##### **Styrene, polymers**

Dust may cause irritation to upper respiratory tract (nose and throat). Vapors released during thermal processing may cause respiratory irritation.

The LC50 has not been determined.

##### **White mineral oil (petroleum)**

LC50, Rat, male and female, 4 Hour, dust/mist, > 5 mg/l OECD Test Guideline 403  
No deaths occurred at this concentration.

#### **Skin corrosion/irritation**

Prolonged contact is essentially nonirritating to skin.

Mechanical injury only.

Under normal processing conditions, material is heated to elevated temperatures; contact with the material may cause thermal burns.

#### **Information for components:**

##### **Styrene, polymers**

Essentially nonirritating to skin.

Mechanical injury only.

##### **White mineral oil (petroleum)**

Essentially nonirritating to skin.

#### **Serious eye damage/eye irritation**

Solid or dust may cause irritation or corneal injury due to mechanical action.

Elevated temperatures may generate vapor levels sufficient to cause eye irritation. Effects may include discomfort and redness.

#### **Information for components:**

##### **Styrene, polymers**

Solid or dust may cause irritation or corneal injury due to mechanical action.

Elevated temperatures may generate vapor levels sufficient to cause eye irritation. Effects may include discomfort and redness.

##### **White mineral oil (petroleum)**

May cause slight eye irritation.

#### **Sensitization**

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

#### **Information for components:**

##### **Styrene, polymers**

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

##### **White mineral oil (petroleum)**

Did not cause allergic skin reactions when tested in guinea pigs.

For respiratory sensitization:

No relevant data found.

#### **Specific Target Organ Systemic Toxicity (Single Exposure)**

The substance or mixture is not classified as specific target organ toxicant, single exposure.

#### **Information for components:**

##### **White mineral oil (petroleum)**



Evaluation of available data suggests that this material is not an STOT-SE toxicant.

#### **Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

#### **Information for components:**

##### **Styrene, polymers**

Based on physical properties, not likely to be an aspiration hazard.

##### **White mineral oil (petroleum)**

Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

#### **Chronic toxicity (represents longer term exposures with repeated dose resulting in chronic/delayed effects - no immediate effects known unless otherwise noted)**

#### **Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Additives are encapsulated in the product and are not expected to be released under normal processing conditions or foreseeable emergency.

#### **Information for components:**

##### **Styrene, polymers**

Based on available data, repeated exposures are not anticipated to cause significant adverse effects.

##### **White mineral oil (petroleum)**

In animals, effects have been reported on the following organs:

Liver

Lymph nodes.

#### **Carcinogenicity**

No relevant data found.

#### **Information for components:**

##### **Styrene, polymers**

Available data are inadequate to evaluate carcinogenicity.

##### **White mineral oil (petroleum)**

Did not cause cancer in laboratory animals.

#### **Teratogenicity**

No relevant data found.

#### **Information for components:**

##### **Styrene, polymers**

No relevant data found.

##### **White mineral oil (petroleum)**

Did not cause birth defects or any other fetal effects in laboratory animals.

#### **Reproductive toxicity**

No relevant data found.

#### **Information for components:**

##### **Styrene, polymers**

Available data are inadequate to determine effects on reproduction.

**White mineral oil (petroleum)**

In animal studies, did not interfere with reproduction.

**Mutagenicity**

No relevant data found.

**Information for components:****Styrene, polymers**

In vitro genetic toxicity studies were negative.

**White mineral oil (petroleum)**

In vitro genetic toxicity studies were negative. Animal genetic toxicity studies were negative.

**11.2 Information on other hazards****Endocrine disrupting properties**

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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**SECTION 12: Ecological information**

*Ecotoxicological information appears in this section when such data is available.*

**12.1 Toxicity****Acute toxicity to fish**

Not expected to be acutely toxic, but material in pellet or bead form may mechanically cause adverse effects if ingested by waterfowl or aquatic life.

**12.2 Persistence and degradability**

**Biodegradability:** This water-insoluble polymeric solid is expected to be inert in the environment. Surface photodegradation is expected with exposure to sunlight. No appreciable biodegradation is expected.

**12.3 Bioaccumulative potential**

**Bioaccumulation:** No bioconcentration is expected because of the relatively high molecular weight (MW greater than 1000).

**12.4 Mobility in soil**

In the terrestrial environment, material is expected to remain in the soil.  
In the aquatic environment, material will sink and remain in the sediment.

**12.5 Results of PBT and vPvB assessment**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

No relevant data found.

**12.6 Endocrine disrupting properties**

Endocrine disrupting potential : The substance/mixture does not contain components considered to have endocrine disrupting properties according

to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

#### 12.7 Other adverse effects

No relevant data found.

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### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods

For uncontaminated material the disposal options include mechanical and chemical recycling or energy recovery. In some countries landfill is also allowed. For contaminated material the options remain the same, although additional evaluation is required. For all countries the disposal methods must be in compliance with national and provincial laws and any municipal or local by-laws. All disposal methods must be in compliance with the EU framework Directives 2008/98/EC and their subsequent adaptations, as implemented in National Laws and Regulations, as well as EU Directives dealing with priority waste streams. Transboundary shipment of wastes must be in compliance with Regulation (EC) No 1013/2006 and subsequent modifications. For non-EU countries, transboundary shipments of wastes must be in compliance with the Basel Convention, as implemented nationally. As a service to our customers, we can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Please contact our Customer Information Group (telephone number in Section 1 of this document) for further details.

The definitive assignment of this material to the appropriate EWC group and thus its proper EWC code will depend on the use that is made of this material. Contact the authorized waste disposal services.

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### SECTION 14: Transport information

#### 14.1 UN number

Not regulated as a dangerous good

#### 14.2 UN proper shipping name

Not regulated as a dangerous good

#### 14.3 Transport hazard class(es)

Not regulated as a dangerous good

#### 14.4 Packing group

Not regulated as a dangerous good

#### 14.5 Environmental hazards

Not regulated as a dangerous good

#### 14.6 Special precautions for user

Not applicable

#### 14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

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### SECTION 15: Regulatory information

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

##### REACH Regulation (EC) No 1907/2006

This product contains only components that have been either registered, are exempt from registration, are regarded as registered or are not subject to registration according to Regulation (EC) No.

1907/2006 (REACH)., Polymers are exempted from registration under REACH. All relevant starting materials and additives have been either registered, or are exempt from registration according to Regulation (EC) No. 1907/2006 (REACH)., The aforementioned indications of the REACH registration status are provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. It is the buyer's/user's responsibility to ensure that his/her understanding of the regulatory status of this product is correct.

**Seveso III: Directive 2012/18/EU of the European Parliament and of the Council on the control of major-accident hazards involving dangerous substances.**

Listed in Regulation: Not applicable

**Further information**

Take note of Directive 92/85/EEC regarding maternity protection or stricter national regulations, where applicable.

**15.2 Chemical safety assessment**

Not applicable

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**SECTION 16: Other information**

**Full text of other abbreviations**

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road; AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA - European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

### Further information

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

IT / EN



# DOW™ LDPE PT 7007

## The Dow Chemical Company - Low Density Polyethylene Resin

Sunday, December 29, 2024

### General Information

#### Product Description

DOW LDPE PT 7007 Polyethylene Resin is a low density polyethylene suitable designed for extrusion coating applications. DOW LDPE PT 7007 Polyethylene Resin has been designed to offer minimum volatile organic carbon (VOC) levels for use in extrusion coating, contributing to low factory emissions and optimal sensory performance.

DOW LDPE PT 7007 Polyethylene Resin exhibits:

- Excellent draw down.
- Good edge stability.
- Low neck-in.

Note: DOW LDPE PT 7007 Polyethylene Resin should comply with U.S. FDA CFR 177.1520(c)2.2 and with EU, No 10/2011 when used unmodified and processed according to good manufacturing practices for food contact applications. Please contact your nearest office regarding food contact compliance statements. The purchaser remains responsible for determining whether the use complies with all relevant regulations.

Applications:

- Paper.
- Board and foil coatings for packaging.
- Food and non-food.

#### General

Material Status	• Commercial: Active
Availability	• Europe
Agency Ratings	• EU No 10/2011                      • FDA 21 CFR 177.1520(c) 2.2
Forms	• Pellets
Processing Method	• Extrusion Coating

### ASTM & ISO Properties <sup>1</sup>

Physical	Nominal Value	Unit	Test Method
Density / Specific Gravity	0.920		ASTM D792
Melt Mass-Flow Rate (MFR) (190°C/2.16 kg)	7.5	g/10 min	ISO 1133
Mechanical	Nominal Value	Unit	Test Method
Tensile Stress (Yield)	1160	psi	ISO 527-2
Tensile Stress (Break)	1450	psi	ISO 527-2
Tensile Strain (Break)	400	%	ISO 527-2
Films	Nominal Value	Unit	Test Method
Seal Initiation Temperature <sup>2</sup>	221	°F	Internal Method
Water Vapor Transmission <sup>3</sup>	17	g/100 in <sup>2</sup> /24 hr	ASTM E398-83
Thermal	Nominal Value	Unit	Test Method
Vicat Softening Temperature	192	°F	ISO 306/A

customer is responsible for determining whether products and the information in this document are appropriate for customer's use and for ensuring that customer's workplace and disposal practices are in compliance with applicable laws and other governmental enactments. seller assumes no obligation or liability for the information in this document. **no warranties are given; all implied warranties of merchantability or fitness for a particular purpose are expressly excluded.**

# DOW™ LDPE PT 7007

## The Dow Chemical Company - Low Density Polyethylene Resin

### Processing Information

Extrusion	Nominal Value	Unit	Test Method
Melt Temperature	518 to 635	°F	
Minimum Coating Weight <sup>4</sup>	3.1	lb/ream	Internal Method
Neck-in			Internal Method
-- <sup>5</sup>	2.6	in	
-- <sup>6</sup>	2.8	in	
-- <sup>7</sup>	3.0	in	

#### Notes

<sup>1</sup> Typical properties: these are not to be construed as specifications.

<sup>2</sup> Temperature required to reach 3 N/15 mm for a 25 g/m<sup>2</sup> coating of LDPE PT 7007 Polyethylene Resin onto paper.

<sup>3</sup> 23°C, 90% RH

Divide by coating weight in g/m<sup>2</sup> to obtain actual WVTR, e.g. at 20 g/m<sup>2</sup> LDPE PT 7007 Polyethylene Resin the WVTR is 378/20= 18.9 g/m<sup>2</sup> day

<sup>4</sup> At 320°C set temperature.

<sup>5</sup> 100 m/min, 25 g/m<sup>2</sup> coatings at 290°C set temperature.

<sup>6</sup> 200 m/min, 25 g/m<sup>2</sup> coatings at 290°C set temperature.

<sup>7</sup> 300 m/min, 25 g/m<sup>2</sup> coatings at 290°C set temperature.