

## SAFETY DATA SHEET - SDS

### PET – (POLYETHYLENE TEREPHTHALATE)

In accordance to Regulations (CE) 1907/2006, (CE) 1272/2008 and (EU) 453/2010 (Annex I).

#### SECTION I – SUBSTANCE AND COMPANY IDENTIFICATION

<b>SUBSTANCE IDENTIFICATION</b>	POLYETHYLENE TEREPHTHALATE – PET
<b>PRODUCT IDENTIFICATION (CHEMICAL NAME):</b>	POLYETHYLENE TEREPHTHALATE
<b>CAS #:</b>	25038-59-9
<b>REACH#</b>	Polymer – Exempt from registration
<b>PRODUCT'S MAIN APPLICATIONS:</b>	Main raw-material for the manufacturing of PET bottles in the food industry.

**Manufacturer /Supplier:**

**COMPANHIA INTEGRADA TEXTIL DE PERNAMBUCO – CITEPE – PQS**

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**TELEPHONE NUMBER FOR EMERGENCIES:**

**Telephone Number for Emergencies:** + 55 (81) 3366 7777 – 24 hours / day

## SECTION II – IDENTIFICATION OF RISKS

### SUBSTANCE CLASSIFICATION IN ACCORDANCE TO REGULATION (CE) No. 1272/2008:

RISK CLASS	CLASS CODE AND RISK CATEGORY	RISK STATEMENT	RISK WARNING
Not Classified	Not Classified	Not Classified	Not Classified

### CLASSIFICATION IN ACCORDANCE TO THE DIRECTIVE 67/548/CEE:

Classification	Risk Symbol	Risk Phrases
Not Classified	Not Classified	Not Classified

### MAIN ADVERSE EFFECTS

**PHYSICAL-CHEMICAL EFFECTS:** No adverse physical-chemical effect is expected under normal usage conditions.

**INGESTION WITH EFFECTS TO HEALTH:** Unknown.

**EXPOSURE VIA INHALATION:** During combustion, produces gases which are toxic and irritating.

**SKIN CONTACT:** Contact with molten material causes thermal burns.

**EYE CONTACT:** May cause irritation by mechanical action.

**SENSITIZATION:** Not dangerous.

**ENVIRONMENTAL EFFECTS:** Inert material, not considered as dangerous. Does not present any particular risk to the environment, given that the recommendations presented under Section XIII related to the elimination, as well as national norms or local norms applicable to this purpose.

### LABELING ACCORDING TO REGULATION No. 1272/2008/EC:

<b>PICTOGRAM(S)</b>	Not provided.
<b>WARNING</b>	Not provided.
<b>RISK STATEMENT</b>	Not provided.

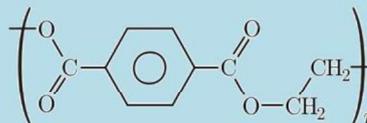
### OTHER RISKS (WHICH DO NOT RESULT IN CLASSIFICATION):

**CHEMICAL-PHYSICAL RISKS:** Non-oxidizing according to CEE criteria.

## SECTION III – COMPOSITION/INGREDIENT INFORMATION

<b>NAME OF THE COMPONENT</b>	<b>POLYETHYLENE TEREPHTHALATE - PET</b>
<b>CONCENTRATION</b>	Variable

#### STRUCTURAL FORMULA



#### CHEMICAL FORMULA

(C<sub>10</sub>H<sub>8</sub>O<sub>4</sub>)<sub>n</sub>

#### MOLECULAR WEIGHT

Variable

#### SUBSTANCE WITH COMMUNITY OEL

NO

#### CAS NAME

Polyethylene terephthalate

#### CAS NUMBER

25038-59-9

#### IUPAC NAME

Polyethylene terephthalate

#### EC NUMBER

No Applicable

#### IMPURITY/IMPURITIES (IF CLASSIFIED)

There are no impurities.

#### ADDITIVE/ADDITIVES (IF CLASSIFIED)

There are no additives.

#### RAW MATERIAL AND COMPOSITION

<u>MONOMER</u>	<u>COMPOSITION</u>	<u>CAS No.</u>	<u>REACH No.</u>
PTA - Purified Terephthalic Acid	82 – 86 %	100-21-0	01-2119485970-27-0058
MEG - Monoethylene Glycol	32 – 35 %	107-21-1	01-2119456816-28-0024
IPA - Isophthalic Acid	2 – 5 %	121-91-5	01-2119488938-12-0010
DEG - Diethylene Glycol	1 – 2 %	111-46-6	N/A

## SECTION IV – FIRST AID MEASURES

#### DESCRIPTION OF THE FIRST AID MEASURES:

##### CONTACT WITH THE EYES

If molten material gets in contact with the eyes, immediately wash with water in abundance. Seek medical help immediately.

##### CONTACT WITH THE SKIN

In case of burns with molten material, immediately wash with water in abundance and soap. Do not remove the material from the skin. This type of burn shall be treated as a thermal burn.

##### INGESTION

The absorption of this material is not expected by the digestive system, thus, it is not necessary to cause vomiting.

##### INHALATION

Does not apply specifically.

#### MOST IMPORTANT SYMPTOMS AND EFFECTS (ACUTE AND LATE):

**ACUTE AND LATE EFFECTS**

Not provided.

**INDICATION OF ANY IMMEDIATE MEDICAL CARE AND SPECIAL TREATMENT NECESSARY:**

**MEDICAL MONITORING**

In case of contact with molten material, cool the product with water; never remove from the skin. The emergency treatment as well as the medical treatment after super-exposure must be directed towards the control of the entire patient condition for all symptoms and the patient's clinical condition.

**ANTIDOTES, IF SUCH ARE KNOWN**

Unknown

**CONTRAINDICATION**

Unknown

**IMMEDIATE TREATMENT AT THE WORK SITE**

Not provided

## SECTION V – FIREFIGHTING MEASURES

**APPROPRIATE FIRE EXTINGUISHING METHODS:**

Water, foam, CO2, dry powder.

**NON-APPROPRIATE FIRE EXTINGUISHING METHODS:**

Do not use water jet / water based fire extinguisher.

**COMBUSTION SUBSTANCES:**

Carbon dioxide, carbon monoxide. The smoke can also contain combustible products from different compositions, presenting risks of explosions when in contact with air.

**SPECIAL PROCEDURES:**

The material, as a powder, may compose explosive combinations with air.

**FIREFIGHTER'S PROTECTION:**

Independent breathing equipment and proper protective clothing must be used when extinguishing the fire.

## SECTION VI – MEASURES FOR ACCIDENTAL SPILL

**PERSONAL PRECAUTIONS:**

Ventilation: good general ventilation is sufficient for all foreseen operational processes.

Breathing Protection: no protection is necessary under normal conditions. In dusty atmospheres, use breathing equipment with dust filter.

Eye protection / face: use protective goggles.

Skin Protection: use thermal insulating gloves when handling molten material.

Decontamination recommended measure: washing the eyes.

<b>ENVIRONMENTAL PRECAUTIONS:</b>	Collect in proper receptacles and treat as non-dangerous industrial residue.
	Avoid spreading the product. Prevent that the product or water from emergency sources contaminate water streams, gully, culverts or sewage systems.
<b>CLEANING METHODS:</b>	Collect spilled material and transfer it to proper recipients for final disposal as reprocessing material or residue. Be careful once such spills may be very slippery.

## SECTION VII – HANDLING AND CONSERVATION

### PRECAUTIONS FOR THE SAFE HANDLING:

<b>HANDLING RECOMMENDATIONS</b>	Does not require specific or special technical measures. When opening the packaging, protect the body and face. Personal protective equipment (PPE) must be worn during handling.
<b>PERSONAL HYGIENE RECOMMENDATIONS</b>	Handle the material respecting general safety rules and industrial hygiene. Avoid any sort of physical or chemical contamination.

### CONDITION FOR THE SAFE CONSERVATION INCLUDING ANY INCOMPABILITIES:

Stability: stable under normal conditions.  
 Avoid heating / excessive heat.  
 Avoid any sort of contamination.  
 Avoid exposure to the elements, which causes packaging and product degradation by the action of humidity and UV rays. Store product at room temperature, in well ventilated and dry location. Protect from direct and indirect heat sources.

### RISK MANAGEMENT MEASURES RELATED TO:

<b>POTENTIAL IGNITION SOURCES</b>	Do not expose product to high temperatures and heat sources.
<b>ENVIRONMENTAL CONDITIONS</b>	Do no expose to the elements.
<b>ENVIRONMENTAL PRESSURE</b>	No restriction procedure is expected.
<b>TEMPERATURE</b>	Do not expose the product to temperatures above 260°C, once it degrades the product with properties loss.
<b>SUNLIGHT</b>	Do not expose the product to direct sunlight.
<b>HUMIDITY</b>	Do not store in humid location.
<b>VIBRATION</b>	No restriction procedure is expected.

**MATERIAL TO SUSTAIN SUBSTANCE'S INTEGRITY:**

<b>STABILIZERS</b>	Usage of stabilizers is not expected.
<b>ANTI-OXIDIZING</b>	Usage of anti-oxidizing is not expected.
<b>OTHER RECOMMENDATIONS:</b>	
<b>REQUIREMENTS REGARDING VENTILATION</b>	General good ventilation is sufficient for all expected operational processes.
<b>WAREHOUSE SPECIFIC PROJECT</b>	Not requested based on the classification.
<b>PACKAGING COMPATIBILITY</b>	Please, check Section X.
<b>SPECIFIC FINAL USE:</b>	There are no specific recommendations.

**SECTION VIII – EXPOSURE CONTROLS / PERSONAL PROTECTION**

**CONTROL PARAMETERS:**

<b>EUROPEAN / NATIONAL WORK EXPOSURE LIMITS</b>	Limit Value (Brazil, Ordinance MTE (sic) 3.214/78 NR 15 – Annex 11)
<b>OTHER EUROPEAN / NATIONAL WORK EXPOSURE LIMITS</b>	Limits not established
<b>EUROPEAN (BEI) / NATIONAL BIOLOGICAL LIMITS</b>	Limits not established
<b>OTHER EUROPEAN (BEI) / NATIONAL BIOLOGICAL LIMITS</b>	Limits not established
<b>RECOMMENDED MONITORING PROCEDURES</b>	Limits not established
<b>DNEL VALUES (acronym in English, level derived from exposure without effects)</b>	Limits not established
<b>PNEC VALUES (acronym in English, probable concentration without effects)</b>	Limits not established

**EXPOSURE CONTROLS:**

**PROPER ENGINEERING CONTROLS:** The adoption of proper engineering controls is also based on the Risk Assessment performed by the employer under its working conditions (substance's usage), mainly when a standardized exposure scenario is not available.

**Personal Protection Measures, for example, Personal Protective Equipment (PPE):** If the risk assessment results performed in accordance to Directive 98/24/EEC demonstrate that the collective and general measures for risk management are not sufficient to reduce risks and, if the exposure to the substance may not be reduced by other contaminant means, the proper personal protective equipment (PPE) must be

	adopted in accordance to the appointed in the EN guidance.
<b>FACE AND EYES PROTECTION</b>	Anti-impact hermetic safety goggles for chemical products or face protection.
<b>SKIN PROTECTION</b>	
<b>HANDS PROTECTION</b>	Leather waterproof gloves or PVC gloves
<b>OTHERS – BODY PROTECTION</b>	Select proper protection equipment based on the usage activity and possible exposure.
<b>BREATHING PROTECTION</b>	No protection is necessary under normal conditions. In dusty atmospheres, use suitable breather with filter for fine dust.
<b>THERMAL RISKS</b>	Not foreseen for standard use.
<b>ENVIRONMENTAL CONTROL EXPOSURE:</b>	Environmental controls are not necessary.

## SECTION IX – PHYSICAL AND CHEMICAL PROPERTIES

<b>PHYSICAL STATE:</b>	Solid
<b>COLOR:</b>	Varies according to the formula
<b>ODOR:</b>	Odorless
<b>pH:</b>	Does not apply (product is not soluble in water).
<b>BOILING POINT:</b>	There is no relevant information available.
<b>FUSION POINT:</b>	22° C - 260° C
<b>IGNITION POINT:</b>	There is no relevant information available.
<b>AUTO-IGNITION TEMPERATURE:</b>	There is no relevant information available.
<b>EXPLOSIVE PROPERTIES:</b>	There is no relevant information available.
<b>STEAM PRESSURE:</b>	There is no relevant information available.
<b>DENSITY:</b>	> 1 g/cm <sup>3</sup>
<b>WATER SOLUBILITY:</b>	Insoluble
<b>VOLATILE MATERIAL (%):</b>	There is no relevant information available.
<b>COMPOSTOS ORGÂNICOS VOLÁTEIS:</b>	There is no relevant information available.
<b>OUTRAS INFORMAÇÕES:</b>	There is no relevant information available.

## SECTION X – STABILITY AND REACTIVITY

<b>CHEMICAL STABILITY:</b>	Stable under normal usage conditions.
<b>POLYMERIZATION RISKS:</b>	There is no relevant information available.
<b>CONDITIONS TO BE AVOIDED:</b>	Keep away from strong oxidizing agents.
<b>INCOMPATIBLE SUBSTANCES OR MATERIAL:</b>	There is no relevant information available.
<b>DECOMPOSITION HARMFUL PRODUCTS</b>	At high temperatures, volatile organic components may be released from product.

## SECTION XI – TOXICOLOGICAL INFORMATION

<b>CONTACT WITH THE EYES:</b>	Product considered as not dangerous according to the European Union Directive Norms.
<b>CONTACT WITH THE SKIN:</b>	Product considered as not dangerous according to the European Union Directive Norms.
<b>INHALATION:</b>	Product considered as not dangerous according to the European Union Directive Norms.
<b>INGESTION:</b>	Product considered as not dangerous according to the European Union Directive Norms.
<b>CHRONIC EFFECT ON HUMAN BEINGS:</b>	Product considered as not dangerous according to the European Union Directive Norms.

## SECTION XII – ECOLOGICAL INFORMATION

<b>ECOTOXICITY:</b>	No harmful/ adverse effect for the environment was reported
<b>PERSISTENCE AND DEGRADATION:</b>	No harmful/ adverse effect for the environment was reported
<b>MOBILITY:</b>	No harmful/ adverse effect for the environment was reported
<b>BIOACCUMULATION:</b>	No harmful/ adverse effect for the environment was reported
<b>OTHER HARMFUL EFFECTS:</b>	No harmful/ adverse effect for the environment was reported

## SECTION XIII – FINAL DISPOSAL INFORMATION

### **TREATMENT METHODS AND PRODUCT FINAL DISPOSITION, RESIDUE AND USED PACKAGING**

Recycle the product to the maximum. If necessary to recycle, use a crushing and agglomeration operation. Take all necessary precautions to avoid creating dust / fine powder. The non-recycled product may be disposed as other general plastics. Incinerate only in proper facilities. Eliminate residue according to the local applicable legislation.

## SECTION XIV – TRANSPORT INFORMATION

Not classified for transport in accordance to the Regulation RID/ADR, IMO/IMDG, ICAO/IATA.

Transport in great quantities according to Annex II from MARPOL 73/78 and IBC Code: Not Applicable.

## SECTION XV – REGULATION INFORMATION

All other information regarding regulations are recorded if not presented under other sections / subsections from the Safety Data Sheet.

### **REGULATION / SAFETY, HEALTH AND ENVIRONMENTAL LEGISLATION SPECIFIC FOR THE SUBSTANCE**

European Label Declaration: handle in accordance to the good practices for industrial health and hygiene.

European Inventory for Chemical Substances Available in the Market (EINECS): this product is not currently listed.

## SECTION XVI – OTHER INFORMATION

**BIBLIOGRAPHIC SOURCES:** There is no relevant information available.

**ACRONYM:**

- ACGIH: American Conference of Industrial Hygienists  
(Conferência Americana de Higienistas Industriais e Governamentais)
- ADR: Agreement over the transportation of harmful substances on roads/highways  
(Acordo sobre o transporte de mercadorias nocivas por Estrada)
- BCF: Bioconcentration Factor (Fator bioacumulado)
- BEI: Biological Exposure Index (Indici di esposizione biologica)  
Índices de Exposição Biológica (Indici di esposizione biologica)
- CAS: Chemical Abstract Service ( American Chemistry Society)  
Serviço Abstrato Químico (divisão da Sociedade Americana de Química)
- CLP: Classification, Labeling and Packaging (Classificação, Rotulagem e Empacotamento)
- CMR: Carcinogenic, Mutagenic, Toxic for reproduction (Carcinogênico, Mutagênico, Tóxico para a reprodução)
- EINECS: European Inventory of Existing Commercial chemical Substances  
(Inventário Europeu sobre as Substâncias Comerciais existentes)
- EPA: US Environmental Protection Agency (Agência de Proteção Ambiental dos EUA)
- GHS: Global Harmonized System (Sistema Globalmente Harmonizado)
- IARC: International Agency for Research on Cancer (Agência Internacional para Pesquisa sobre o Câncer)
- IATA: International Air Transport Association Code (Código da Associação Internacional de Transporte Aéreo)
- IMDG: International Maritime Dangerous Goods Code (Código Marítimo Internacional de Mercadorias Nocivas)
- IUPAC: International Union of Pure and Applied Chemistry (União Internacional de Química Pura e Aplicada)
- LOEL: Lowest Observed Effect Level (Menor Nível de Efeito Observado)
- N.A.: No Applicable
- N.A.: No Available
- NOAEL: no observed adverse effect level (Nenhum Nível de Efeito Adverso Observado)
- NTP: National Toxicology Program (Programa Nacional de Toxicologia)
- OEL: Occupational Exposure Limit (Limite de Exposição Ocupacional)
- OSHA: Occupational Safety and Health Administration (Administração de Segurança e Saúde Ocupacional)
- PPE: Personal Protection Equipment (Equipamento de Proteção Pessoal)
- PBT: Persistent, bioaccumulative and toxic substances (Substâncias Tóxicas, Biocumulativas e Persistentes)
- RID: Regulations Concerning the International Transport of Dangerous Goods by Rail (Regulamento relativo ao transporte internacional ferroviário de mercadorias nocivas)
- TLV/TWA: Threshold Limit Value-Time-Weighted Average (Valor Limite/ Limite de Tolerância)
- vPvB: Very Persistent, Very Bioaccumulative (muito persistente, muito bioacumulado)

***ALL INFORMATION CONTAINED HEREIN ATTEMPT TO DESCRIBE THE PRODUCT FROM THE SAFETY REQUIREMENTS POINT OF VIEW ACCORDING TO MSDS (ACRONYM IN ENGLISH FOR MATERIAL SAFETY DATA SHEETS) FROM THE MANUFACTURER.***