

## PRODUCT SAFETY AND ENVIRONMENTAL AWARENESS

### SELF-DECLARATION

Information on product safety and environmental awareness related to white PVC cards products as described in the technical datasheet enclosed.

On the base of our actual knowledge and the MSDS datasheet from our unplasticized PVC film suppliers used for the production process of white cards, SELP declare the conformity of the white PVC cards with the actual standards of the industry.

Please find enclosed the following documents to accompany our declaration:

- technical datasheet of the white PVC card
- MSDS from our PVC suppliers

We remain at your disposal should you have any clarifications;

Best Regards,

  
Stephane GUILBAULT,  
CEO SELP SAS

**SELP S.A.S**

Capital 1 734 543,04 €  
RCS Périgueux n° B 351 667 928  
TVA n° FR 77 351 667 928  
contact@selp.fr  
www.selp.fr

**SELP - Angoulême**

SIRET n° 351 667 928 00052  
Rue Louis Pergaud  
16000 Angoulême, France  
Tel : +33 5 45 25 17 00  
Fax : +33 5 45 25 17 09

**SELP - Mareuil**

SIRET n° 351 667 928 00011  
Route de Ribérac  
24340 Mareuil-sur-Belle, France  
Tel : +33 5 53 60 84 44  
Fax : +33 5 53 60 84 45

**SELP - Paris**

SIRET n° 351 667 928 00037  
19 rue Bergère  
75009 Paris, France  
Tel : +33 1 42 81 48 02  
Fax : +33 1 42 81 21 12

# Technical Datasheet

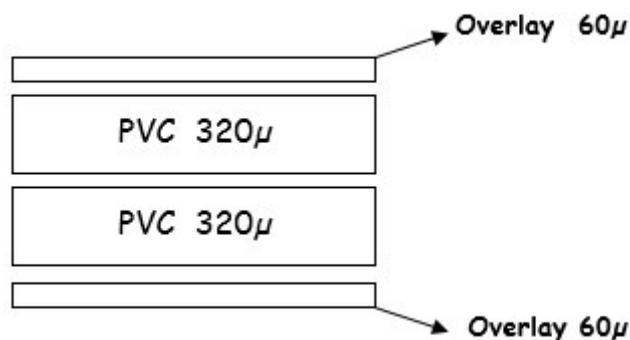
## Unprinted PVC cards 750µm packed by 50

(ref. CO000441)

### Principal characteristic:

- Material : white PVC mat films thickness 320µm, overlay films thickness 60µm non coated
- Dimensions : ISO 7813 ID-1, 85,60 × 53,98 mm
- Thickness : 760µm, ±80µm
- Product surface finish : Mirror
- Specific conditioning: 50 cards per box, 7 boxes per cardboard

### Structure



### Information related to the cards composition

#### Ecological information

Inert product in water. Non-biodegradable product.

#### Considerations related to the card disposal

This PVC material can be destroyed in plastics waste recycling. Comply with legal requirements: laws, decrees and orders.

#### Information related to transport

Not regulated as dangerous goods

#### Regulatory information

This product is not classified as hazardous according to national and international standards.

# INFORMATION on PRODUCT SAFETY and ENVIRONMENTAL AWARENESS

**Bilcare**  
Research

Unplasticized PVC film

Information on product safety and environmental awareness related to semi-finished and finished Bilcare products. Those products are "articles containing no intentionally released substances".

On the base of our actual knowledge, no obligation to supply Safety Data Sheets exists. (\*note 1)

## IDENTITY AND ADDRESS

Company: **Bilcare Research S.r.l.**  
Production facility: Via XXIV Maggio 1; 21043 Castiglione Olona; Varese - Italia  
Commercial office: Via XXIV Maggio 1; 21043 Castiglione Olona; Varese - Italia

## PRODUCT INFORMATION

Unplasticized PVC film named:

**SICOSMART: 227\_T, 237\_T, 287\_T, 307\_T, 307\_T1, 347\_T, 986\_T, 707\_T**  
**SICOFFSET: 207\_R1, 207\_R2, 223, 227, 227\_RC, 237, 277, 287, 288\_RA, 304\_R2, 306\_R, 307, 328, 347, 356, 785, 986**  
**SICOLEX: S04, S46, S66**  
**SICOREG: S00**  
**SICOPLAY: 307\_A4, 344\_A4, 605, 605\_A4, 768\_A4**  
**SICOPLAST: 147, 156\_R, 157, 157\_R1, 167, 167\_RF, 255, 735, 787**  
**SICOECO: H03, H37, H67**  
**PR: 315, 315\_4D, 316, 316\_4D**

are films for printing. In case of clear films: protective overlay for laminated cards.

## MAIN INGREDIENTS

Polyvinylchloride and/or copolymer vinyl chloride-vinyl acetate.  
Opaque and transparent coloured products contain colourants, pigments and/or mineral fillers.

## HANDLING – STORAGE - TRANSPORT

### Precautions for safe handling

Suitable precautionary measures must be taken to ensure that exposure levels are within the applicable limits  
Prevent dust formation during machining of finished product. During granulation avoid formation of dust  
If product forms dust, wear dust-protection mask.

### Measures for the environment

Make provision for adequate ventilation.  
In case of thermal treatment (hot processing) remove fumes, assure adequate ventilation and avoid inhalation of fumes/gases

### Measures to prevent aerosol and dust generation and fire

Avoid static electricity, particularly where explosive atmospheres exists. The static electricity maybe a problem when film is processed at high speeds (reels) or if used in environment at low humidity level.  
It is recommended that personnel handling statically-charged films should be protected.

### Storage – safe conditions

To be stored in the original packaging at temperatures >15 °C up to 30 °C and max relative humidity 40 - 60% . Avoid the exposure to moisture and direct sunlight. Re-wrapping of already used material to avoid dust and sun light.

### Special transport requirements (ONU Number, ADR/RID/RMP, IMO, IATA)

Not applicable

## FIRE MEASURES

PVC is weakly flammable

### Flammability / solubility

PVC Flash ignition point (FIT) ASTM D1929: 390 °C  
PVC Self ignition point (SIT) ASTM D1929: 450 °C  
PVC is soluble in cyclohexanone, tetrahydrofuran, dichloroethane

### Decomposition temperature

# INFORMATION on PRODUCT SAFETY and ENVIRONMENTAL AWARENESS

**Bilcare**  
Research

Unplasticized PVC film

Decomposition temperature PVC: > 120°C long term exposure; > 250°C short term exposure  
Thermal decomposition occurs very slowly at lower temperatures but accelerates at higher temperatures

## Suitable extinguishing media

Suitable extinguishing media: extinguishing powder, water spray, CO<sub>2</sub>, foam extinguishers

## Special protective equipment for fire-fighters

In case of fire, toxic gases may develop. Firemen should wear self-contained breathing apparatus.

After skin contact with molten film, seek medical advice.

No thermal decomposition when stored and handled correctly.

Hazardous decomposition products: caused by smouldering and incomplete combustion toxic fumes mainly consisting of: carbon monoxide CO, carbon dioxide CO<sub>2</sub>, hydrochloric acid, carbonized residues of combustion can be developed.

Do not discharge waste water from fire extinguishing into river, sea or lakes.

## Conditions and materials to avoid

PVC is normally:

- acid resistant (exception: sulphuric acid (>90%) and nitric acid (>50%)
  - basic aqueous solutions resistant up to 60°C; above this temperature, strong acids attack the polymer.
- Bromine and fluorine reacts with PVC at room temperature.

## Classification

Films are not considered dangerous according to Directive 1999/45/EEC and 67/548/EEC.

PVC is not harmful or hazardous.

Traces of vinyl chloride monomer (VCM) and vinyl acetate(VAM, if copolymer) are present: both substances are IARC classified. VCM is a gas that could be released in the work environment. Traces could be detectable.

---

## DISPOSAL CONSIDERATIONS

### Description of surplus or waste resulting from the foreseeable use and information on their safe handling

Recycling is recommended.

### Community provisions relating to waste

If utilization or recycling of the product is not possible, it should be disposed of according to the local regulations and laws.

This document has been prepared by Bilcare Research S.r.l. on the base of the actual knowledge available and given in good faith without warranty. It is intended as a technical guideline for the user.

Bilcare Research S.r.l. do not guarantee that every possible environmental and safety measure has been evaluated. Under special operational conditions, further measures may be needed.

The use of this information and conditions of use are not under the control of Bilcare Research S.r.l. : the final user must take the responsibility for safety conditions for the final application.

---

### Note 1:

The obligation to supply safety data sheets happens if:

Substances and preparations: According to REACH Regulation 1907/2006 *Article 31-Requirements for Safety Data Sheets*, the obligation to supply Safety data sheet happens if:

1. The supplier of a substance or a preparation shall provide the recipient of the substance or preparation with a safety data sheet compiled in accordance with Annex II:
  - (a) where a substance or preparation meets the criteria for classification as dangerous in accordance with Directives 67/548/EEC or 1999/45/EC; or
  - (b) where a substance is persistent, bioaccumulative and toxic or very persistent and very bioaccumulative in accordance with the criteria set out in Annex XIII; or
  - (c) where a substance is included in the list established in accordance with Article 59(1) for reasons other than those referred to in points (a) and (b).

Articles: According to REACH Regulation EC 1907/2006-*Article 33- Duty to communicate information on substances in articles:*

1. Any supplier of an article containing a substance meeting the criteria in Article 57 (Substances to be included in Annex XIV) and identified in accordance with Article 59(1) in a concentration above 0,1 % weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.
2. On request by a consumer any supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0,1 % weight by weight (w/w) shall provide the consumer with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.)

# INFORMATION on PRODUCT SAFETY and ENVIRONMENTAL AWARENESS



Unplasticized PVC film plain or coated

Information on product safety and environmental awareness related to semi-finished and finished Bilcare products. Those products are "articles containing no intentionally released substances".

On the base of our actual knowledge, no obligation to supply Safety Data Sheets exists. (\*note 1)

## IDENTITY AND ADDRESS

Company: **Bilcare Research S.r.l.**  
Production facility: Via XXIV Maggio 1; 21043 Castiglione Olona; Varese - Italia  
Commercial office: Via XXIV Maggio 1; 21043 Castiglione Olona; Varese - Italia

## PRODUCT INFORMATION

Unplasticized PVC film plain or coated named:

**COATED SICOPLAST : 147\_B, 156\_B1, 157\_B, 157\_BC, 167\_B, 167\_BA, 167\_BD, 207\_B1, 255\_B, 787\_B, 735\_B coated with COATING TYPES: N1L1, S1L1, HP1L1, HU1L1, U1L1, S1L2, LT2L1, HP2L1, LT2L1, M3L1**  
**COATED SICOFFSET: 227\_B7, 287\_B7 coated with COATING TYPES: DPC1L1**  
**COATED SICOECO: H67\_B coated with COATING TYPES: N1L1, S1L1, HP1L1, U1L1, S1L2, LT2L1, HP2L1, LT2L1, M3L1**

are films for printing. In case of clear films: protective overlay for laminated cards.

## MAIN INGREDIENTS

Polyvinylchloride and/or copolymer vinyl chloride-vinyl acetate  
Opaque and transparent coloured products contain colourants, pigments and/or mineral fillers.  
If COATED: surface treatment with special resin (polyamide)

## HANDLING – STORAGE - TRANSPORT

### Precautions for safe handling

Suitable precautionary measures must be taken to ensure that exposure levels are within the applicable limits  
Prevent dust formation during machining of finished product. During granulation avoid formation of dust  
If product forms dust, wear dust-protection mask.

### Measures for the environment

Make provision for adequate ventilation.  
In case of thermal treatment (hot processing) remove fumes, assure adequate ventilation and avoid inhalation of fumes/gases

### Measures to prevent aerosol and dust generation and fire

Avoid static electricity, particularly where explosive atmospheres exist. The static electricity may be a problem when film is processed at high speeds (reels) or if used in environment at low humidity level.  
It is recommended that personnel handling statically-charged films should be protected.

### Storage – safe conditions

To be stored in the original packaging at temperatures >15 °C up to 30 °C and max relative humidity 40 - 60% . Avoid the exposure to moisture and direct sunlight. Re-wrapping of already used material to avoid dust and sun light.

### Special transport requirements (ONU Number, ADR/RID/RMP, IMO, IATA)

Not applicable

## FIRE MEASURES

PVC is weakly flammable

### Flammability / solubility

PVC Flash ignition point (FIT) ASTM D1929: 390 °C  
PVC Self ignition point (SIT) ASTM D1929: 450 °C  
PVC is soluble in cyclohexanone, tetrahydrofuran, dichloroethane

### Decomposition temperature

Decomposition temperature PVC: > 120°C long term exposure; > 250°C short term exposure  
Thermal decomposition occurs very slowly at lower temperatures but accelerates at higher temperatures

# INFORMATION on PRODUCT SAFETY and ENVIRONMENTAL AWARENESS



Unplasticized PVC film plain or coated

## Suitable extinguishing media

Suitable extinguishing media: extinguishing powder, water spray, CO<sub>2</sub>, foam extinguishers

## Special protective equipment for fire-fighters

In case of fire, toxic gases may develop. Firemen should wear self-contained breathing apparatus.

After skin contact with molten film, seek medical advice.

No thermal decomposition when stored and handled correctly.

Hazardous decomposition products: caused by smouldering and incomplete combustion toxic fumes mainly consisting of: carbon monoxide CO, carbon dioxide CO<sub>2</sub>, hydrochloric acid, carbonized residues of combustion can be developed.

Do not discharge waste water from fire extinguishing into river, sea or lakes.

## Conditions and materials to avoid

PVC is normally:

- acid resistant (exception: sulphuric acid (>90%) and nitric acid (>50%)
- basic aqueous solutions resistant up to 60°C; above this temperature, strong acids attack the polymer.

Bromine and fluorine reacts with PVC at room temperature.

## Classification

Films are not considered dangerous according to Directive 1999/45/EEC and 67/548/EEC.

PVC is not harmful or hazardous.

Traces of vinyl chloride monomer (VCM) and vinyl acetate(VAM, if copolymer) are present: both substances are IARC classified.

VCM is a gas that could be released in the work environment. Traces could be detectable.

---

## DISPOSAL CONSIDERATIONS

### Description of surplus or waste resulting from the foreseeable use and information on their safe handling

Recycling is recommended.

### Community provisions relating to waste

If utilization or recycling of the product is not possible, it should be disposed of according to the local regulations and laws.

This document has been prepared by Bilcare Research S.r.l. on the base of the actual knowledge available and given in good faith without warranty. It is intended as a technical guideline for the user.

Bilcare Research S.r.l. do not guarantee that every possible environmental and safety measure has been evaluated. Under special operational conditions, further measures may be needed.

The use of this information and conditions of use are not under the control of Bilcare Research S.r.l. : the final user must take the responsibility for safety conditions for the final application.

---

### Note 1:

The obligation to supply safety data sheets happens if:

Substances and preparations: According to REACH Regulation 1907/2006 *Article 31-Requirements for Safety Data Sheets*, the obligation to supply Safety data sheet happens if:

1. The supplier of a substance or a preparation shall provide the recipient of the substance or preparation with a safety data sheet compiled in accordance with Annex II:

(a) where a substance or preparation meets the criteria for classification as dangerous in accordance with Directives 67/548/EEC or 1999/45/EC; or

(b) where a substance is persistent, bioaccumulative and toxic or very persistent and very bioaccumulative in accordance with the criteria set out in Annex XIII; or

(c) where a substance is included in the list established in accordance with Article 59(1) for reasons other than those referred to in points (a) and (b).

Articles: According to REACH Regulation EC 1907/2006-*Article 33- Duty to communicate information on substances in articles*:

1. Any supplier of an article containing a substance meeting the criteria in Article 57 (Substances to be included in Annex XIV) and identified in accordance with Article 59(1) in a concentration above 0,1 % weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.

2. On request by a consumer any supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0,1 % weight by weight (w/w) shall provide the consumer with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.)

# Safety information for articles

acc. to the regulation REACH 1907/2006/EC



**Polymer name: Rigid PVC films  
K, L, M, N, R or T types 201 to 298 or 403 to 480  
(except M222, M223)**

<b>1.</b>	<b>Substance/Preparation and Company Identification</b>  Polymer: Rigid PVC films <b>K, L, M, N, R or T types 201 to 298 or 403 to 480</b> (except M222, M223)  Company name: Klöckner Pentaplast GmbH P.O. Box 12 06, 84505 Burgkirchen Industriepark Werk Gendorf, Kraftwerkstr. 1, 84508 Burgkirchen Germany  Information about material/preparation: Phone: +49 8679 7 2222 (identical with emergency information)
<b>2.</b>	<b>Composition/Information on Ingredients</b>  Chemical description: Polyvinyl Chloride Dangerous components: None
<b>3.</b>	<b>Hazard Identification</b>  Not applicable
<b>4.</b>	<b>Emergency and First Aid Procedures (only necessary when handled without care)</b>  Inhalation: If PVC decomposes due to overheating or in contact with fire: Remove affected persons to fresh air. In case of irritation of respiratory system or if feeling unwell after prolonged exposure, get medical attention.  Skin contact: If contact with hot (melt) product occurs: Wash with plenty of water, treat as for thermal burn.  Eye contact: After contact with hot (melt) product: Immediately flush eyes with water for several minutes at least, get medical attention.  Ingestion: To avoid mechanical irritation; get medical advice.  Advises for the doctor: After inhalation of decomposed products: Symptomatic treatment (decontamination, vital functions), if necessary action against irritations of the mucous membranes by HCl.

The statements contained herein are for informational purposes only and are true and accurate to the best of our scientific and technical knowledge. This information does not constitute a guarantee or warranty, express or implied, nor does it establish a legally valid contractual relationship. It is the customer's responsibility to determine the suitability of this product for the customer's intended use, and Klöckner Pentaplast does not assume any liability for the customer's use of this product or the information contained herein.  
made / revised: 06 / 06.03.2015

T:\Technische\_Datenblaetter\ORIGINALE\SICHERHEITSDATEN\Englisch\PVC\_techn\_kpGendorf\_06-20150306\_en

Klöckner Pentaplast Europe GmbH & Co. KG  
P.O. Box 1165, 56401 Montabaur  
Industriestrasse 3-5, 56412 Heiligenroth, Germany  
Phone: +49.2602.915.0, Fax: +49.2602.915.297  
kpinfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast of America, Inc.  
P.O. Box 500, 3585 Klöckner Road,  
Gordonsville, Virginia, USA 22942  
Phone: +1.540.832.3600, Fax: +1.540.832.5656  
kpainfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast (Suzhou) Specialty Materials Co., Ltd  
12 Xia Sheng Road, Suzhou Industrial Park  
Suzhou 215126, P.R. China  
Phone: +86.(0)512.6260 9991, Fax: +86.(0)512.6260 9992  
kpinfo-CN@kpfilms.com, kpfilms.com

# Safety information for articles

acc. to the regulation REACH 1907/2006/EC



<b>5.</b>	<b>Fire Fighting Procedures</b>  Suitable extinguishing media: Water spray, powder, carbon dioxide Unsuitable extinguishing media: None Burning may release: Carbon Dioxide (CO <sub>2</sub> ) Water vapour (H <sub>2</sub> O) Hydrochloric gas (HCl) If the burning material cannot get enough air, release of carbon monoxide, soot, and other gases and vapors is possible. Special protective equipment: If necessary, use air-bottled or air circulating apparatus for fire fighters. Further information: PVC-U does not burn without a slave flame (self extinguishing). Observe local regulations when contaminated water and burning waste are removed.
<b>6.</b>	<b>Spill or Leak Procedures</b>  Personal precautions: Not applicable Environmental precautions: Not applicable Methods of cleaning: Pick up by mechanical means for disposal or reuse
<b>7.</b>	<b>Handling and Storage Precautions</b>  Handling: Avoid overheating the material, it decomposes to gaseous components (see also 5.). Thermal degradation does not occur at low temperatures, but becomes faster at higher temperatures.  Decomposition: >150°C (long-term contact) >200°C (short-term contact/i.e., warm forming) It is advisable to install local exhaust ventilation in the vicinity of processing machines in all areas where melt or high temperature processing is carried out (Germany: observe TRGS 402).  Fire and Explosion Protection: Take precautionary measures against static discharge (i.e., using proper grounding techniques) when handling rolls or sheets in dry rooms (especially to avoid harm to people). According to VDI 2263, page 1, paragraph 2.1.2.3 (dd May 1990), PVC is not dust explosive as delivered by Klöckner Pentaplast.  Storage: Take precautionary measures to avoid fire hazard. Store in normal room conditions without direct exposure to sunlight.

The statements contained herein are for informational purposes only and are true and accurate to the best of our scientific and technical knowledge. This information does not constitute a guarantee or warranty, express or implied, nor does it establish a legally valid contractual relationship. It is the customer's responsibility to determine the suitability of this product for the customer's intended use, and Klöckner Pentaplast does not assume any liability for the customer's use of this product or the information contained herein.

made / revised: 06 / 06.03.2015

T:\Technische\_Datenblaetter\ORIGINALE\SICHERHEITSDATEN\Englisch\PVC\_techn\_kpGendorf\_06-20150306\_en

Klöckner Pentaplast Europe GmbH & Co. KG  
P.O. Box 1165, 56401 Montabaur  
Industriestrasse 3-5, 56412 Heiligenroth, Germany  
Phone: +49.2602.915.0, Fax: +49.2602.915.297  
kpinfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast of America, Inc.  
P.O. Box 500, 3585 Klöckner Road,  
Gordonsville, Virginia, USA 22942  
Phone: +1.540.832.3600, Fax: +1.540.832.5656  
kpainfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast (Suzhou) Specialty Materials Co., Ltd  
12 Xia Sheng Road, Suzhou Industrial Park  
Suzhou 215126, P.R. China  
Phone: +86.(0)512.6260 9991, Fax: +86.(0)512.6260 9992  
kpinfo-CN@kpfilms.com, kpfilms.com

# Safety information for articles

acc. to the regulation REACH 1907/2006/EC



<b>8.</b>	<b>Exposure Control/Personal Protection</b>  Additional advice for design of machines: See item 7  Components with limits to be observed (depending upon work station): PVC is recognized as safe. However, it may contain trace amounts of: Vinylchloride monomer VCM, CAS-No. 75-01-4, EINECS-No. 2008310 MAK-Value: 2ppm (5 mg/m <sup>3</sup> ) (Germany as TRK-value acc. to TRGS 102) <b>For Penta brand films, a VCM value of ≤ 0,5 ppm is guaranteed.</b>  Protection: Given the special precautions mentioned under "7. Handling," these traces present no toxic risk to the processing personnel. Gloves should be worn when handling hot material. Safety glasses are normally recommended for all industrial workplaces when handling hot material.
<b>9.</b>	<b>Physical and Chemical Properties</b>  Form: Mono films Color: From clear to black as required Smell: Odorless under normal conditions, melt material has a specific odor know as "plastic." Change of state: Softening temperature (DIN EN ISO 306): 60-90°C Glass transition temperature: approx 80°C Ignition temperature: see point 7 Density (DIN EN ISO 1183-2): 1,25 - 1,60 g/cm <sup>3</sup> Solubility of PVC: Soluble in: tetrahydrofuran and cyclohexanone Partly soluble in: different aromatic hydrocarbons Not soluble in: water, diluted acids and bases Fire supporting properties: PVC products are not easily combustible without a slave flame source
<b>10.</b>	<b>Stability and Reactivity</b>  Conditions to avoid: Thermal degradation by overheating (see 7.)

The statements contained herein are for informational purposes only and are true and accurate to the best of our scientific and technical knowledge. This information does not constitute a guarantee or warranty, express or implied, nor does it establish a legally valid contractual relationship. It is the customer's responsibility to determine the suitability of this product for the customer's intended use, and Klöckner Pentaplast does not assume any liability for the customer's use of this product or the information contained herein.  
made / revised: 06 / 06.03.2015

T:\Technische\_Datenblaetter\ORIGINALE\SICHERHEITSDATEN\Englisch\PVC\_techn\_kpGendorf\_06-20150306\_en

Klöckner Pentaplast Europe GmbH & Co. KG  
P.O. Box 1165, 56401 Montabaur  
Industriestrasse 3-5, 56412 Heiligenroth, Germany  
Phone: +49.2602.915.0, Fax: +49.2602.915.297  
kpinfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast of America, Inc.  
P.O. Box 500, 3585 Klöckner Road,  
Gordonsville, Virginia, USA 22942  
Phone: +1.540.832.3600, Fax: +1.540.832.5656  
kpainfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast (Suzhou) Specialty Materials Co., Ltd  
12 Xia Sheng Road, Suzhou Industrial Park  
Suzhou 215126, P.R. China  
Phone: +86.(0)512.6260 9991, Fax: +86.(0)512.6260 9992  
kpinfo-CN@kpfilms.com, kpfilms.com

# Safety information for articles

acc. to the regulation REACH 1907/2006/EC



<p><b>11.</b></p>	<p><b>Information about Toxicity</b></p> <p>PVC is recognized as safe and biologically inert. Klöckner Pentaplast certifies that its rigid films comply with the most recent package requirements for heavy metals of the Toxic Packaging Clearing House (TPCH, formerly CONEG) legislation and the latest March 9, 2005, requirements of Directive 2013/2/EU, as well as the Commission Decision of 2011/534/EU amending the Directive 2002/95/EC [RoHS-Reduction of Hazardous Substances] in their actual valid version.</p>
<p><b>12.</b></p>	<p><b>Ecological Information</b></p> <p>PVC is not soluble in water (WKG 0, by supplier self declaration); PVC is harmless in contacts with fish and bacteria. In a water treatment plant, PVC can be separated mechanically.</p>
<p><b>13.</b></p>	<p><b>Disposal Considerations</b></p> <p>Klöckner Pentaplast guarantees the recycling of customers' material (=100% kp material). Recycling of printed or other used material is also possible, but this depends on the degree of impurities.</p> <p>Uncontaminated material is normally used as material for recycling, but can also be treated as household or incineration waste in accordance with local regulations.</p> <p>European Waste-Catalogue: code 200139 for plastics.</p> <p>Klöckner Pentaplast certifies that its rigid films comply to the European Packaging Directive EU 94/62, as well as its actual valid amendments.</p>
<p><b>14.</b></p>	<p><b>Transport</b></p> <p>No hazardous material according to transport regulations (ADR, RID, ADNR, IMDG, IATA).</p>
<p><b>15.</b></p>	<p><b>Regulatory Information</b></p> <p>EEC labelling acc. Regulation (EC) 1272/2008 (Directive 67/548/EEC) as well as its actual valid amendments: Not applicable</p> <p>National legislation acc. to § 4a GefStoffV: Not applicable</p> <p>NB: This means PVC films are not considered hazardous materials</p>
<p><b>16.</b></p>	<p><b>Further Information</b></p> <p>Klöckner Pentaplast rigid films do not contain any Ozone depleting substances, including those listed in the 1990 Clean Air Act Amendments.</p> <p>The information and recommendations contained herein are based upon present data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein.</p>

The statements contained herein are for informational purposes only and are true and accurate to the best of our scientific and technical knowledge. This information does not constitute a guarantee or warranty, express or implied, nor does it establish a legally valid contractual relationship. It is the customer's responsibility to determine the suitability of this product for the customer's intended use, and Klöckner Pentaplast does not assume any liability for the customer's use of this product or the information contained herein.

made / revised: 06 / 06.03.2015

T:\Technische\_Datenblaetter\ORIGINALE\SICHERHEITSDATEN\Englisch\PVC\_techn\_kpGendorf\_06-20150306\_en

Klöckner Pentaplast Europe GmbH & Co. KG  
P.O. Box 1165, 56401 Montabaur  
Industriestrasse 3-5, 56412 Heiligenroth, Germany  
Phone: +49.2602.915.0, Fax: +49.2602.915.297  
kpinfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast of America, Inc.  
P.O. Box 500, 3585 Klöckner Road,  
Gordonsville, Virginia, USA 22942  
Phone: +1.540.832.3600, Fax: +1.540.832.5656  
kpainfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast (Suzhou) Specialty Materials Co., Ltd  
12 Xia Sheng Road, Suzhou Industrial Park  
Suzhou 215126, P.R. China  
Phone: +86.(0)512.6260 9991, Fax: +86.(0)512.6260 9992  
kpinfo-CN@kpfilms.com, kpfilms.com

# Safety information for articles

acc. to the regulation REACH 1907/2006/EC



**Polymer name: Rigid PVC films  
L, M, N or R types 201 to 298 or 403 to 480  
(except M222, M223)**

<b>1.</b>	<b>Substance/Preparation and Company Identification</b>
	<p>Polymer: Rigid PVC films <b>L, M, N or R types 201 to 298 or 403 to 480</b> (except M222, M223)</p> <p>Company name: Klöckner Pentaplast GmbH P.O. Box 11 65 56401 Montabaur Germany</p> <p>Information about material/preparation: Phone: +49 2602 915 0 (identical with emergency information)</p>
<b>2.</b>	<b>Composition/Information on Ingredients</b>
	<p>Chemical description: Polyvinyl Chloride</p> <p>Dangerous components: None</p>
<b>3.</b>	<b>Hazard Identification</b>
	<p>Not applicable</p>
<b>4.</b>	<b>Emergency and First Aid Procedures (only necessary when handled without care)</b>
	<p>Inhalation: If PVC decomposes due to overheating or in contact with fire: Remove affected persons to fresh air. In case of irritation of respiratory system or if feeling unwell after prolonged exposure, get medical attention.</p> <p>Skin contact: If contact with hot (melt) product occurs: Wash with plenty of water, treat as for thermal burn.</p> <p>Eye contact: After contact with hot (melt) product: Immediately flush eyes with water for several minutes at least, get medical attention.</p> <p>Ingestion: To avoid mechanical irritation; get medical advice.</p> <p>Advises for the doctor: After inhalation of decomposed products: Symptomatic treatment (decontamination, vital functions), if necessary action against irritations of the mucous membranes by HCl.</p>

The statements contained herein are for informational purposes only and are true and accurate to the best of our scientific and technical knowledge. This information does not constitute a guarantee or warranty, express or implied, nor does it establish a legally valid contractual relationship. It is the customer's responsibility to determine the suitability of this product for the customer's intended use, and Klöckner Pentaplast does not assume any liability for the customer's use of this product or the information contained herein.

made / revised: 23 / 06.03.2015

T:\Technische Datenblätter\ORIGINALE\SICHERHEITSDATEN\Englisch\PVC techn. kpM\_23-20150306\_en

Klöckner Pentaplast Europe GmbH & Co. KG  
P.O. Box 1165, 56401 Montabaur  
Industriestrasse 3-5, 56412 Heiligenroth, Germany  
Phone: +49.2602.915.0, Fax: +49.2602.915.297  
kpinfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast of America, Inc.  
P.O. Box 500, 3585 Klöckner Road,  
Gordonsville, Virginia, USA 22942  
Phone: +1.540.832.3600, Fax: +1.540.832.5656  
kpainfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast (Suzhou) Specialty Materials Co., Ltd  
12 Xia Sheng Road, Suzhou Industrial Park  
Suzhou 215126, P.R. China  
Phone: +86.(0)512.6260 9991, Fax: +86.(0)512.6260 9992  
kpinfo-CN@kpfilms.com, kpfilms.com

# Safety information for articles

acc. to the regulation REACH 1907/2006/EC



<b>5.</b>	<b>Fire Fighting Procedures</b>  Suitable extinguishing media: Water spray, powder, carbon dioxide Unsuitable extinguishing media: None Burning may release: Carbon Dioxide (CO <sub>2</sub> ) Water vapour (H <sub>2</sub> O) Hydrochloric gas (HCl) If the burning material cannot get enough air, release of carbon monoxide, soot, and other gases and vapors is possible. Special protective equipment: If necessary, use air-bottled or air circulating apparatus for fire fighters. Further information: PVC-U does not burn without a slave flame (self extinguishing). Observe local regulations when contaminated water and burning waste are removed.
<b>6.</b>	<b>Spill or Leak Procedures</b>  Personal precautions: Not applicable Environmental precautions: Not applicable Methods of cleaning: Pick up by mechanical means for disposal or reuse
<b>7.</b>	<b>Handling and Storage Precautions</b>  Handling: Avoid overheating the material, it decomposes to gaseous components (see also 5.). Thermal degradation does not occur at low temperatures, but becomes faster at higher temperatures.  Decomposition: >150°C (long-term contact) >200°C (short-term contact/i.e., warm forming) It is advisable to install local exhaust ventilation in the vicinity of processing machines in all areas where melt or high temperature processing is carried out (Germany: observe TRGS 402).  Fire and Explosion Protection: Take precautionary measures against static discharge (i.e., using proper grounding techniques) when handling rolls or sheets in dry rooms (especially to avoid harm to people). According to VDI 2263, page 1, paragraph 2.1.2.3 (dd May 1990), PVC is not dust explosive as delivered by Klöckner Pentaplast.  Storage: Take precautionary measures to avoid fire hazard. Store in normal room conditions without direct exposure to sunlight.

The statements contained herein are for informational purposes only and are true and accurate to the best of our scientific and technical knowledge. This information does not constitute a guarantee or warranty, express or implied, nor does it establish a legally valid contractual relationship. It is the customer's responsibility to determine the suitability of this product for the customer's intended use, and Klöckner Pentaplast does not assume any liability for the customer's use of this product or the information contained herein.

made / revised: 23 / 06.03.2015

T:\Technische Datenblätter\ORIGINALE\SICHERHEITSDATEN\Englisch\PVC\_tech\_n\_kpM\_23-20150306\_en

Klöckner Pentaplast Europe GmbH & Co. KG  
P.O. Box 1165, 56401 Montabaur  
Industriestrasse 3-5, 56412 Heiligenroth, Germany  
Phone: +49.2602.915.0, Fax: +49.2602.915.297  
kpinfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast of America, Inc.  
P.O. Box 500, 3585 Klöckner Road,  
Gordonsville, Virginia, USA 22942  
Phone: +1.540.832.3600, Fax: +1.540.832.5656  
kpainfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast (Suzhou) Specialty Materials Co., Ltd  
12 Xia Sheng Road, Suzhou Industrial Park  
Suzhou 215126, P.R. China  
Phone: +86.(0)512.6260 9991, Fax: +86.(0)512.6260 9992  
kpinfo-CN@kpfilms.com, kpfilms.com

# Safety information for articles

acc. to the regulation REACH 1907/2006/EC



<b>8.</b>	<b>Exposure Control/Personal Protection</b>  Additional advice for design of machines: See item 7  Components with limits to be observed (depending upon work station): PVC is recognized as safe. However, it may contain trace amounts of: Vinylchloride monomer VCM, CAS-No. 75-01-4, EINECS-No. 2008310 MAK-Value: 2ppm (5 mg/m <sup>3</sup> ) (Germany as TRK-value acc. to TRGS 102) <b>For Penta brand films, a VCM value of ≤ 0,5 ppm is guaranteed.</b>  Protection: Given the special precautions mentioned under "7. Handling," these traces present no toxic risk to the processing personnel. Gloves should be worn when handling hot material. Safety glasses are normally recommended for all industrial workplaces when handling hot material.
<b>9.</b>	<b>Physical and Chemical Properties</b>  Form: Mono films Color: From clear to black as required Smell: Odorless under normal conditions, melt material has a specific odor know as "plastic." Change of state: Softening temperature (DIN EN ISO 306): 60-90°C Glass transition temperature: approx 80°C Ignition temperature: see point 7 Density (DIN EN ISO 1183-2): 1,25 - 1,60 g/cm <sup>3</sup> Solubility of PVC: Soluble in: tetrahydrofuran and cyclohexanone Partly soluble in: different aromatic hydrocarbons Not soluble in: water, diluted acids and bases Fire supporting properties: PVC products are not easily combustible without a slave flame source
<b>10.</b>	<b>Stability and Reactivity</b>  Conditions to avoid: Thermal degradation by overheating (see 7.)

The statements contained herein are for informational purposes only and are true and accurate to the best of our scientific and technical knowledge. This information does not constitute a guarantee or warranty, express or implied, nor does it establish a legally valid contractual relationship. It is the customer's responsibility to determine the suitability of this product for the customer's intended use, and Klöckner Pentaplast does not assume any liability for the customer's use of this product or the information contained herein.

made / revised: 23 / 06.03.2015

T:\Technische Datenblätter\ORIGINALE\SICHERHEITSDATEN\Englisch\PVC\_tech\_n\_kpM\_23-20150306\_en

Klöckner Pentaplast Europe GmbH & Co. KG  
P.O. Box 1165, 56401 Montabaur  
Industriestrasse 3-5, 56412 Heiligenroth, Germany  
Phone: +49.2602.915.0, Fax: +49.2602.915.297  
kpinfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast of America, Inc.  
P.O. Box 500, 3585 Klöckner Road,  
Gordonsville, Virginia, USA 22942  
Phone: +1.540.832.3600, Fax: +1.540.832.5656  
kpainfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast (Suzhou) Specialty Materials Co., Ltd  
12 Xia Sheng Road, Suzhou Industrial Park  
Suzhou 215126, P.R. China  
Phone: +86.(0)512.6260 9991, Fax: +86.(0)512.6260 9992  
kpinfo-CN@kpfilms.com, kpfilms.com

# Safety information for articles

acc. to the regulation REACH 1907/2006/EC



<b>11.</b>	<b>Information about Toxicity</b>  PVC is recognized as safe and biologically inert.  Klöckner Pentaplast certifies that its rigid films comply with the most recent package requirements for heavy metals of the Toxic Packaging Clearing House (TPCH, formerly CONEG) legislation and the latest March 9, 2005, requirements of Directive 2013/2/EU, as well as the Commission Decision of 2011/534/EU amending the Directive 2002/95/EC [RoHS-Reduction of Hazardous Substances] in their actual valid version.
<b>12.</b>	<b>Ecological Information</b>  PVC is not soluble in water (WKG 0, by supplier self declaration); PVC is harmless in contacts with fish and bacteria. In a water treatment plant, PVC can be separated mechanically.
<b>13.</b>	<b>Disposal Considerations</b>  Klöckner Pentaplast guarantees the recycling of customers' material (=100% kp material). Recycling of printed or other used material is also possible, but this depends on the degree of impurities.  Uncontaminated material is normally used as material for recycling, but can also be treated as household or incineration waste in accordance with local regulations.  European Waste-Catalogue: code 200139 for plastics.  Klöckner Pentaplast certifies that its rigids comply to the European Packaging Directive EU 94/62, as well as its actual valid amendments.
<b>14.</b>	<b>Transport</b>  No hazardous material according to transport regulations (ADR, RID, ADNR, IMDG, IATA).
<b>15.</b>	<b>Regulatory Information</b>  EEC labelling acc. Regulation (EC) 1272/2008 (Directive 67/548/EEC) as well as its actual valid amendments: Not applicable  National legislation acc. to § 4a GefStoffV: Not applicable  NB: This means PVC films are not considered hazardous materials
<b>16.</b>	<b>Further Information</b>  Klöckner Pentaplast rigid films do not contain any Ozone depleting substances, including those listed in the 1990 Clean Air Act Amendments.  The information and recommendations contained herein are based upon present data believed to be correct. However, no guarantee or warranty of any kind expressed or implied is made with respect to the information contained herein.

The statements contained herein are for informational purposes only and are true and accurate to the best of our scientific and technical knowledge. This information does not constitute a guarantee or warranty, express or implied, nor does it establish a legally valid contractual relationship. It is the customer's responsibility to determine the suitability of this product for the customer's intended use, and Klöckner Pentaplast does not assume any liability for the customer's use of this product or the information contained herein.  
made / revised: 23 / 06.03.2015

T:\Technische Datenblätter\ORIGINALE\SICHERHEITSDATEN\Englisch\PVC\_tech\_n\_kpM\_23-20150306\_en

Klöckner Pentaplast Europe GmbH & Co. KG  
P.O. Box 1165, 56401 Montabaur  
Industriestrasse 3-5, 56412 Heiligenroth, Germany  
Phone: +49.2602.915.0, Fax: +49.2602.915.297  
kpinfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast of America, Inc.  
P.O. Box 500, 3585 Klöckner Road,  
Gordonsville, Virginia, USA 22942  
Phone: +1.540.832.3600, Fax: +1.540.832.5656  
kpainfo@kpfilms.com, kpfilms.com

Klöckner Pentaplast (Suzhou) Specialty Materials Co., Ltd  
12 Xia Sheng Road, Suzhou Industrial Park  
Suzhou 215126, P.R. China  
Phone: +86.(0)512.6260 9991, Fax: +86.(0)512.6260 9992  
kpinfo-CN@kpfilms.com, kpfilms.com