

acc. to 2001/58/EC

Rigid PVC-films: K or M, types 203 to 205

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mad	le / revised: 01 / 21.11.:	2006					
1.	Substance / Preparation and Company Identification						
	<u>Trade mark:</u>	Rigid PVC-films					
		K or M, types 203 to 205	CKNER PENTAPLAST GmbH & Co. KG striepark Werk Gendorf 14504 Burgkirchen				
	<u>Company:</u>	KLÖCKNER PENTAPLAST (Industriepark Werk Gendorf D – 84504 Burgkirchen GERMANY					
	information about ma	<i>formation about material/preparation:</i> Tel.: +49 / (0)8679 7 2222 (for emergency use also)					
2.	Composition / Information on Ingredients						
	<u>Chemical Description</u> Composition of Polyvinylchloride acc. to DIN ISO 7728: PVC-U						
	Dangerous compone Di-Antimony trioxide		Concentration:< 10 %CAS-Number:001 309-64-4Hazard symbol:XnRisk phrases:40				
3.	Hazard Identification not applicable						
4.	Emergency and First Aid Procedures						
	(only necessary when handled without care)						
	Inhalation:	Remove affected perso	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 occur: 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 ir	To avoid mechanical irritation, get medical advice.				
	Advices for the docto	treatment (decontami	After inhalation of decomposed products: Symptomatic treatment (decontamination, vital functions), if necessary action against irritations of the mucous membranes by HCI.				



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5.	<i>Fire-Fighting Procedures</i> Suitable extinguishing media: Water spray, Powder, Carbon dioxide				
	PVC-U does not burn without a slave flame (self-extinguishing).				
	Unsuitable extinguishing media: Burning may release:	none Carbon dioxide(CO ₂) Water vapour(H ₂ O) Hydrochloric gas(HCI) Antimony halides/oxy-halides (chlorides)			
	If the burning material cannot get enough air, release of carbon monoxide, soot and other gases and vapours is possible.				
	Special protective equipment:	If necessary, use air-botteled or air-circulating apparatus for fire-fighters.			
	Further information:	Observe local regulations when contamined water and burning waste are removed.			
6.	Spill or Leak Procedures				
	Personal Precautions: Environmental Precautions: Methods of Cleaning:	not applicable not applicable Pick up by mechanical means for disposal or reuse.			
7.	Handling and Storage Precautions <u>Handling</u> Avoid overheating the material, it decomposes to gaseous components (see also 5.). The degradation does not occur at low temperatures, but becomes faster at higher temperatu				
	Decomposition:	> 150 °C at long term contact > 250 °C at short term contact (e.g. 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)				
	<i>Fire and explosion protection</i> Take precautionary measures against static discharge, e.g. by using proper grounding techniques, when handling rolls or sheets in dry rooms (esp. to avoid damage to personnel!). Acc. to VDI 2263, page 1, par. 2.1.2.3 (dd. May 1990) PVC is not dust explosive as delivered by KLÖCKNER PENTAPLAST GmbH.				
	<u>Storage:</u> Take precautionary measures to avoid fire hazard. Store in normal room conditions, without direct exposure to sunlight.				



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8.	Exposure Control / Personal Protection <u>Additional advices tips for design of machines:</u> see item 7					
	Components with limits to be observed (depending on work station)					
	PVC is recognized as safe. However, it may contain trace amounts of Vinyl chloride monomer VCM CAS-Nr. 75-01-4 EINECS-Nr. 2008310					
	MAK-Value: (Germany, as TRK-Value acc. to TRGS 102): 2 ppm (5 mg/m ³)					
	For PENTA-films a VCM value lower than 1 ppm is guaranteed.					
	Given the special precautions ment risk to the processing personnel.	entioned under 7. HANDLING, these traces present no toxic				
	<u>Protection</u> Gloves should be worn when handling hot material. Safety lasses are normally recommende for all industrial workplaces, e.g. when handling melts material.					
9.	Physical and Chemical Properties					
	Form: Colour: Smell:	mono films from clear to black, as required odourless under normal conditions, melt material has a specific odour known as "plastic".				
	Change of state:	Softening temperature (DIN EN ISO 306): Glass transition temperature: Ignition temperature: Density (DIN 53479) :	60 90°C approx. 80 °C see point 7 1,251,45 g/cm ³			
	Solubility PVC:	soluble in:	e.g. tetrahydrofurane and cyclohexanone			
		partly soluble in:	different aromatic hydrocarbons			
		not soluble in:	water, diluted acids and bases			
	Fire supporting properties:	none PVC products are also <u>not easily combustible</u> without fire protecting equipment.				
10.	Stability and Reactivity <u>Conditions to avoid</u> Thermal degradation by overheatin	g (see point 7.).				

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11.	Information about Toxicity <u>acute toxicity</u> PVC is recognised as safe and biologically inert.					
	The films do not contain the following heavy metals: cadmium (Cd), lead (Pb), mercury (Hg), nickel (Ni), cobalt (Co) or chromium-VI (Cr ^{VI}).					
12.	Ecological Information					
	PVC is not soluble in water (WGK 0, by supplier self declaration); PVC is harmless in contact with fishes and bacteria. In water treatment plant PVC can be separated mechanically					
13.	Disposal considerations KLÖCKNER PENTAPLAST GMBH & CO. KG guarantees the recycling of customer's clean and pure PVC (= 100% KP-material). Recycling of printed or other used material is also possible, but it depends on the degree of impurities.					
	European Waste catalogue 75/442/EEC: 200103 (for small pieces of plastic) 200106 (for other pieces of plastic)					
14.	Transport PVC is not considered as a hazardous material: German regulations (GefStoffV) No hazardous material acc. to transport regulations (ADR; RID; ADNR; IMDG; IATA).					
15.	Regulations					
	EEC labelling:No declaration required acc. to 67/548/EEC and its updated versions.National legislation acc. to § 4 a GefStoffV:not applicable					
	NB: This means PVC-film are not considered as hazardous materials.					
16.	Other Declaration					
	All PENTA-films are produced under the regulations of Quality Management System DIN EN ISO 9001:2000. Further more our Environmental Management System is certified according to the EN ISO 14001:2004					
	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					