



Material Safety Data Sheet

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200. Standard must be consulted for specific requirements.

U.S. Department of Labor
Occupational Safety and Health
Administration
(Non-Mandatory Form)
Form Approved
OMB No. 1218-0072



IDENTITY	ORACAL PVC-films
-----------------	-------------------------

Section I

Manufacturer's Name	Emergency Tel.: n.a.
ORAFOL-Klebetchnik GmbH	Tel. for information: 0049 3301 864 0
Am Biotop 2 D - 16515 Oranienburg	Date: 10.02.05
Germany	

Section II - Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH TLV	Other Limits Recommended	% (optional)
none				



Section III - Physical/Chemical Characteristics

Boiling Point	n.a.	Specific Gravity (H ₂ O = 1)	n.a.
Vapor Pressure (mm Hg)	n.a.	Melting Point	n.a.
Vapor Density (AIR = 1)	n.a.	Evaporation Rate (Butyl Acetate = 1)	n.a.
Solubility in Water		n.a.	
Appearance and Odor		n.a.	

Section IV - Fire and Explosion Hazard Data

Flash Point (Method Used)	Flammable Limits	LEL	UEL
Extinguishing Media		all types	
Special Fire Fighting Procedures		none	
Unusual Fire and Explosion Hazards		PVC-films develop gaseous HCl at flame temperatures	

(Reproduce locally)

OSHA 174, Sept. 1985

Section V - Reactivity Data

Stability	Unstable	no	Conditions to Avoid
	Stable	X	
Incompatibility (<i>Materials to Avoid</i>)			
Hazardous Decomposition or Byproducts			
Hazardous Polymerization	May Occur	no	Conditions to Avoid



	Will Not Occur	X	
--	----------------	---	--

Section VI - Health Hazard Data

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
Health Hazards (<i>Acute and Chronic</i>)		none	
Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
		none	
Signs and Symptoms of Exposure		none	
Medical Conditions Generally Aggravated by Exposure temperatures		PVC-films develop gaseous HCl at flame temperatures	
Emergency and First Aid Procedures		not necessary	

Section VII - Precautions for Safe Handling and Use

Steps to Be Taken in Case Material is Released or Spilled	
n.a.	
Waste Disposal Method: landfill or incinerate in a commercial facility	Dispose in a sanitary
Precautions to Be taken in Handling and Storing	



	not necessary
Other Precautions	not necessary



Section VIII - Control Measures

Respiratory Protection (<i>Specify Type</i>)		<i>n.a.</i>
Ventilation	Local Exhaust	Special
	Mechanical (<i>General</i>)	Other

Protective Gloves	<i>n.a.</i>	Eye Protection	<i>n.a.</i>
Other Protective Clothing or Equipment		<i>n.a.</i>	
Work/Hygienic Practices		not necessary	

* U.S.G.P.O.: 1986 - 491 - 529/45775

Description

Soft PVC film with matt surface.

Release paper

Silicone coated paper on one side, 137 g/m², which provides excellent waste-stripping properties. For white vinyl a light blue silicone paper is used to form a stronger contrast to lettering.

Adhesive

Polyacrylate, removable

Area of use

Very good suitable for the use on cutting plotter systems. For short- and medium-term marking, lettering and decoration in exhibition building.

Certificates

Applied to expanded PVC slab Vekaplan SF (3mm) material classification B1 according to DIN 4102 Part 1 and to test report no. 230006481 (MPA NRW). Only flame resistant (class DIN 4102-B1) in a distance of at least 40mm to equal or other plane building materials. Burning drip down. Smoke limit was exceeded.

Technical data

Thickness* (without protective paper and adhesive)	80 micron
Dimensional stability (FINAT TM 14)	adhered to steel, no measurable shrinkage in cross direction, in length 0.4 mm max.
Temperature resistance***	adhered to aluminium, -40°C to +80°C, no variation
Water resistance	adhered to aluminium, after 48h/23°C no variation
Adhesive power* (FINAT TM 1, after 24h, stainless steel)	7 N/25 mm
Tensile strength (DIN EN ISO 527)	
along	min. 19 MPa
across	min. 19 MPa
Elongation at break (DIN EN ISO 527)	
along	min. 130%
across	min. 150%
Shelf life**	2 years
Application temperature	> +10°C
Service life by specialist application under vertical outdoor exposure (normal climate of Central Europe)	3 years
Removability	within 2 years residueless removable from most surfaces

* average ** in original packaging, at 20°C and 50% relative humidity

*** normal climate of Central Europe

Attention:

Surfaces to which the material will be applied must be thoroughly cleaned from dust, grease or any contamination which could affect the adhesion of the material. Freshly lacquered or painted surfaces should be allowed to dry for at least three weeks and to completely cure respectively. The compatibility of selected lacquers and paints should be tested by the user, prior to application of the material. Furthermore the application information published by ORAFOL is to be considered. The batch traceability according to ISO 9001 is possible on the basis of the roll number.

The statements in this information sheet are based upon our knowledge and practical experience. This data is intended only as a source of information and is given without guarantee and does not constitute a warranty. Due to the wide variety of possible uses and applications customers should independently determine the suitability of this material for their specific purpose, prior to use.

