## Technical Safety Information Sheet for Nonwovens on a voluntary basis (TSIS)

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Freudenb

Date of revision : 16.02.2011

according to EC 1907/2006

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#### for product(s) :

T 1777

	Date of 1550e . 10.02.2011		
1.	Product and company identification	n	
	Product	Т 1777	
	Company	Freudenberg Vliesstoffe KG (D-79389 Neuenburg)	
	Telephone / Telefax	+49 7631 71-0 / +49 7631 73607	
	Informing department	Produktentwicklung Naßvliesstoffe	
	Telephone / Telefax	+49 7631 71-293 / +49 7631 7929054	
	E-mail address	rudolf.wagner@freudenberg-nw.com	
2.	Possible hazards	No hazardous product under normal conditions.	
	Special hazards information	Accidental thermal decomposition and/or (partially) melting state can present hazards, see pt. 10.	
3.	Composition / information on ingredients		
	This document provides safety-related information created on a voluntary basis. As nonwovens are generally not hazardous materials, a Material Safety Data Sheet (MSDS) is not legally requested or obligatory for such products. The TSIS is an alternative means of transferring essential hazard information (including information on handling, storage, transport and actions in case of emergency) from the supplier of the nonwoven product to the recipient. The information content is based on the EC regulation for MSDS (EC 1907/2006).		

The information of this TSIS has been developed by the supplier on express request of its customer and to the best of today's knowledge. The supplier does not assume any liability with respect to the correctness and / or completeness of this information. The TSIS does not release the customer from a possible duty to check all safety relevant properties of the nonwoven referring to official information on the local obligations.

#### **Chemical characterization (product)** Description Wet-laid nonwoven, chemically bonded Main components Fibre type(s) : C-glass Binder type(s) : Polyacrylate Fibre additives (e.g. spin finishes, delustrants, etc.) Side components, additives Process auxiliaries (e.g. dispersing agents, defoamer, etc.) Finishinas None Further information None • 4. First-aid measures Under normal conditions ... After inhalation ... not applicable ... no specific measures to be taken After skin contact After eye contact ... no specific measures to be taken After ingestion ... no specific measures to be taken : Information for the doctor ... no specific measures to be taken : 5. Fire-fighting measures Suitable extinguishing media All common extinguishing media (e.g. water, CO2, sand) Unsuitable extinguishing media : None Special hazards due to combustion products or emerging gases Ref. to formation of flammable and toxic combustion products, as well as skin contact with molten material, see pt. 10. Ref. to disposal of unburned residues and contaminated extinguishing media, see pt. 12. Special protective equipment In event of fire it is advisable to wear a self-contained breathing apparatus. Further information None

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6.	Accidental release measures				
	Personal precautions	:	No specific measures to be taken		
	Environmental precautions	:	No specific measures to be taken		
	Procedure for cleaning / absorption	:	No specific measures to be taken		
7.	Handling and storage				
	Handling	:	Ref. to exposure controls and personal protection in case of		
			mechanical-thermal treatment / processing, see pt. 8,		
			otherwise no specific measures to be taken.		
	Protection against fire and explosion	:	No specific measures to be taken		
	Storage	:	Storage under cool, dry and light-protected conditions is recommended (storage temperature max. 40°C, avoidance of high relative air humidity, formation of condensed water and direct solar		
			radiation).		
8.	Exposure controls and personal protection				
	Technical protective measures	:	During mechanical-thermal processing (e.g. grinding, cutting, laminating), irritant (fibre) dusts and traces of irritant volatile components may possibly be released. In these cases vacuum equipment should be present or at least proper ventilation should be implemented.		
	Components with workplace-related				
	exposure limits (to be monitored)	:	None		
	Personal protective equipment		If (fibre) dusts are released in higher extent during mechanical- thermal processing,		
1	Respiratory protection	:	the use of a respirator is recommended,		
	Hand protection	:	wearing of protective gloves or at least the application of a barrier cream is recommended,		
	Eye protection	:	wearing of safety glasses is recommended,		
	Skin protection	:	avoidance of intense skin contact is recommended,		
			otherwise no specific measures to be taken.		
	General safety and hygiene measures				
	Measures	:	Precautions similar to handling of chemicals are recommended.		
9.	Physical and chemical properties				
	Colour	:	white		
	Odour	:	Odourless		
	Boiling point resp. range (°C)	:	Not applicable		
	Melting point resp. range (°C)	:	Decomposition / Dissimilation (at least partially) above ca. $250^\circ C$		
	Flash point / Ignition temperature (°C)	:	Not easily inflammable / Not tested		
	Autoignition	:	Not tested		
	Explosion hazard / Explosion limits	:	Not liable to explode / Not applicable		
	Vapour pressure (mbar)		Not applicable		
	Density (g/cm <sup>3</sup> )	) :	ca. 0,1		
	Solubility in water	:	Not tested (Product contains traces of water-soluble ingredients)		
	Solubility in other solvents	:	Binder system is "soluble" / "softening" in styrene (resp. in common styrene containing resins for manufacturing of FRP parts)		
	pH value	:	Not applicable		
	Viscosity	:	Not applicable		
	Further information	:	None		

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10. Stability and reactivity	
Conditions to avoid	Product may (at least partially) melt and / or decompose at temperatures above ca. 250°C. Decomposition is enhanced resp. accelerated in case of contact with below mentioned substances to avoid.
Substances to avoid	: Strong alkalis, strong (oxidizing) acids
Hazardous decomposition products	: Under thermal-chemical decomposition resp. in case of fire flammable and toxic fumes may be generated (as e.g. carbon monoxide (CO)). Type and amount of decomposition and oxidation products are subjected to specific (fire) conditions.
Further information	: (Partially) molten product must not come in contact with the skin, because it may stick and cause strong burns.
11. Toxicological information	Under normal conditions
Acute toxicity	: not applicable / not known
Irritation effects	: not applicable / not known
Sensitization	: not applicable / not known
Subacute to chronic toxicity	: not applicable / not known
Carcinogenicity, mutagenicity,	
teratogenicity	: not applicable / not known
Experience from practise	: None
Further information	: Under thermal-chemical decomposition resp. in case of fire toxic substances may be generated, see pt. 10.
12. Ecological information	
Biodegradability	: Not biodegradable
Ecotoxicity	: No ecotoxic effects are to be expected for regular transportation, storage and duly use.
Further ecological information	<ul> <li>In event of fire, unburned residues as well as contaminated extinguishing media must be disposed of in compliance with existing regulations.</li> <li>Water pollution may be possible to a certain extend if components are (partially) washed / dissolved out.</li> </ul>
13. Disposal considerations	
General information	: Product can be disposed off as non hazardous solid waste in compliance with existing regulations (e.g. by incineration or landfill).
Disposal code no. / AVV-Code	: 040222
14. Transport information	
	Product is under normal conditions no hazardous good according to existing transport regulations.
15. Regulatory information	
Labelling according to EC regulations National regulations	<ul> <li>Product needs not be labelled according to existing EC regulations.</li> <li>Product is not subjected to special national regulations for duly use (e.g. German chemicals act or direction on hazardous materials).</li> </ul>
16. Other information	
	None

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All information mentioned above is based on the present state of our knowledge and experience. The TSIS describes the product with regard to general safety requirements. The information does not guarantee certain properties. Recipients of the product must take their own responsibility for observing existing (local) laws and regulations.

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