

SAFETY DATA SHEET

Date of issue: 21.05.2007

Date to update : 09.10.2007

Number: SB_8_61

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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**1.1. Identification of the preparation:** SPECTRAL H6525 HARDENER**1.2. Use of the preparation:** This product is the second essential component for hardening acryl fillers: SPECTRAL UNDER 355 and SPECTRAL UNDER 335. The product is the solution of poliisocyanates resin in organic solvents.**1.3. Company/undertaking identification:** NOVOL Sp. z o.o. Tel: (061) 810-98-00
ul. Żabikowska 7/9 Fax: (061) 810-98-09
62-052 Komorniki www.novol.pl
Emergency tel: (061) 810-98-00**2. HAZARD IDENTIFICATION****HEALTH HAZARDS:** Harmful product. Harmful by inhalation and in contact with skin. Irritating to eyes and skin. May cause sensitization by skin contact.**DANGEROUS PROPERTIES:** Flammable liquid; avoid contact with strong oxidants.**OTHER:** CO₂ is generated in reaction with water.**3. COMPOSITION / INFORMATION ON INGREDIENTS**

EEC No.	Name of the substance	WE No.	CAS No.	Classification of the substance	Marking of the substance	Composition
--	Hexamethylene diisocyanate, oligomers	--	28182-81-2	Xi; R43	Xi R: 43 S: (2-)-24/25	35-45%
607-195-00-7	2-Methoxy-1-methylethyl acetate	203-603-9	108-65-6	R10 Xi; R36	Xi R: 10-36 S: (2-)25	25-45%
607-025-00-1	Butyl acetate	204-658-1	123-86-4	R10 R66-67	R: 10-66-67 S: (2-)25	<5%
601-022-00-9	Xylene	215-535-7	1330-20-7	R10 Xn, R20/21 Xi, R38	Xn R: 10-20/21-38 S: (2-)25	10-30%

4. FIRST AID MEASURES**GENERAL INFORMATION:** See 11 point Product Data Sheet.**INHALATION:** Take the casualty into the fresh air and keep warm irregular breathing/no breathing artificial respiration call a physician.**SKIN:** Take off soiled clothes. Wash off with plenty of lukewarm water (at least 15 minutes). Consult a doctor in the event of skin reaction.**EYES:** Hold the eyes open and rinse immediately with plenty of lukewarm water (at least 15 minutes). Contact with ophthalmologist.**ALIMENTARY TRACT:** Do not provoke vomiting (risk of choking). Medical help is required.**5. FIRE-FIGHTING MEASURES****FIRE EXTINGUISHING SUBSTANCES:** Powder, foam resistant to alcohols, carbon dioxide, watermist.**SPECIAL HAZARDS:** Fire may cause the generation of carbon monoxide, nitric oxides, isocyanate fumes and trace amounts of hydrogen cyanide. Penetration of contaminated extinguishing underground water or surface water must be prevented.**PROTECTIVE EQUIPMENT:** Firemen have to wear self-contained breathing apparatus and protective clothing.**OTHER INFORMATION:** Cool adjacent tanks by spraying water from a safe distance.

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6. ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: Eliminate sources of ignition. Ensure sufficient ventilation in this room. Avoid direct contact with the released substance. Avoid contact with skin and eyes. Put on protective equipment see chapter 8.

PROTECTION OF THE ENVIRONMENT: Prevent to get through to the sewage system, to the surface water, underground water, to the soil. In case of a major spillage the affected area should be separated with bounds.

ACTION IN CASE OF SPILLAGE: Stop the spillage (close the flow of the liquid, seal the gaps). Remove the substance mechanically. The remaining quantity should be covered with a layer of humid material suitable for fixing liquids (e.g. wood flour, preparation for fixing chemicals based on hydrated calcium silicate, sand). After approx. 1 hour collect the covering layer into a waste container. Do not close the container (CO₂ is being released). Leave for several days in a secure place outdoors while maintaining the material in a humid condition. For further disposal measures: see chapter 13.

7. HANDLING AND STORAGE

HANDLING RULES: Keep away from heat and sources of fire. Do not smoke. Do not inhale vapours. Avoid contact with skin and eyes. Take precautionary measures against electrostatic loading. Attention – in the reaction with moisture CO₂ is generated and increase pressure in the container. Use only in well ventilated place. Put on protective equipment-see chapter 8.

STORAGE: Keep in sealed containers in cool, well ventilated rooms. Storage in the vicinity of a large quantity of organic peroxides or strong oxidants is prohibited.

PECULIAR APPLICATION: See the technical product data sheet.

8. EXPOSURE CONTROLS/ PERSONAL PROTECTION

LIMIT VALUES:

for Xylene CAS 1330-20-7 according to:

- *TRGS 900:* MAK: 100ppm, MAK: 440 mg/m³, 2(II),DFG, H
 - Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]: TWA 50 mg/m³, 220mg/m³, STEL 100ppm, 441 mg/m³, Sk, BMGV
- for 2-methoxy-1-methylethyl acetate CAS 108-65-6 according to:
- *TRGS 900:* MAK: 50ppm, MAK: 270 mg/m³, 1(I),DFG, EU, Y
 - Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]: TWA 50 ppm, 274 mg/m³, STEL 100ppm, 548 mg/m³, Sk
- for Butyl acetate CAS 123-86-4 according to:
- Adopted National Exposure Standards for Atmospheric Contaminants in the Occupational Environment [NOHSC:1003(1995)]: TWA 150 ppm, 724 mg/m³, STEL 200ppm, 966 mg/m³

RESPIRATORY TRACT PROTECTION: Gas mask with A2-P2.type absorbing canister.

PROTECTION OF HANDS: Protective gloves suitable for handling solvents (viton, India-rubber, thickness >0,35mm only suitable for brief exposure).

EYES PROTECTION: Protective glasses.

SKIN PROTECTION: Suitable protective clothing (antistatic,impregnated clothing).

WORKPLACE: Topical stays and exhausting ventilation.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: liquid
Colour: colourless
Smell: pungent, penetrating odour
Boiling point: 126-145°C
Flash-point: 24°C
Autoignition point: approx.270°C
Density: approx.1.0 g/cm³ (20°C)
Water solubility: insoluble
Viscosity (rotating rheometer) approx.. 10mPas
Standard Hardener:
Explosion limits: % lower: 1.2 vol.% upper: 8.8 vol.%
Vapour pressure: 6.3 mbar (20°C)
Fast Hardener:
Explosion limits: % lower: 1.3 vol.% upper: 9.2 vol.%
Vapour pressure: 8.0 mbar (20°C)
Slow Hardener:
Explosion limits: % lower: 1.4 vol.% upper: 9.6 vol.%
Vapour pressure: 4.3 mbar (20°C)

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10. STABILITY AND REACTIVITY					
STABILITY:		The product remains stable under normal conditions.			
AVOID THE CONTACT OF THE MATERIAL WITH:		Strong oxidants, high temperature, strong acids and basis. Exothermic reaction with amines and alcohols, slow release of CO ₂ in case of contact with water; pressure build-up in closed containers, danger of bursting of the containers			
DANGEROUS DECOMPOSITION PRODUCTS:		Carbon monoxide, nitric oxides, isocyanate fumes, trace amounts of hydrogen cyanide and other toxic gasses are generated as a result of thermal decomposition.			
11. TOXICOLOGICAL INFORMATION					
Toxicological studies at the preparation are not available.					
TOXICITY: Xylene:		LD ₅₀ (rat, oral)	5000 mg/kg		
		LC ₅₀ (rat, inhalation)	4550 ppm/4h		
Butyl acetate:		LD ₅₀ (rat, oral)	14000 mg/kg		
		LC ₅₀ (rat, inhalation)	9660 mg/m ³ /8h		
IRRITATING EFFECT:		Skin: irritating to skin and mucous membranes. Eyes: irritating effect. Irritation and other symptoms (difficulty in breathing, cough, asthma) may appear with time lag.			
SYMPTOMS OF POISONING:		Headache and vertigo, fatigue, decreased muscle power, sleepiness and, in exceptional instances, loss of consciousness. If swallowed, the substance may cause irritation of the alimentary tract, nausea, vomiting, and diarrhoea.			
12. ECOLOGICAL INFORMATION					
Ecological studies at the preparation are not available.					
2-Methoxy-1-methylethyl acetate:		Daphnia magna/EC50 (48h.) > 500 mg/l Oncorhynchus mykiss/LC50 (96h.) 100-180 mg/l Number in catalogue includes substance danger to water : 5033 Water hazard class : 1			
Xylene:		Daphnia magna/EC50 (48h.) > 7,4 mg/l ID-Number: 206 Classification under Hazard to Water: 2			
Butyl acetate:		ID-Number: 42 Classification under Hazard to Water: 1			
The product is very poorly soluble in water. Keep away from the sewage system, surface water, underground water, and soil. The product in the contact with water changes in solid, insoluble substance (polycarbamide). At the same time CO ₂ changes.					
13. DISPOSAL CONSIDERATIONS					
RECOMMENDATION:		Product must be disposed of by special means in accordance with local regulations.			
REMAINS OF PRODUCT: code of waste: 08 05 01*		Remains of product in the tin should be carefully remove and harden using suitable filler. It is allowed add to hardener mixed with filler some damp sand or water. Harden product is not harmfully substance and could be treat like plastics wastes (in accordance with the regulations).			
ATTENTION:		Remains should be harden in small portions far from flammable substances. Much amount of heat is emitting in the time of reaction!			
CLEAN TIN:		Tin carefully clean is not harmful waste. code of waste: 15 01 04			
TIN PARTLY EMPTY:		See remains of product.			
14. TRANSPORT INFORMATION					
GENERAL INFORMATION:		Do not transport with materials class 1 (with the exception of materials class 1.4S) and with some of materials class 4.1 and 5.2. Avoid direct contact with materials class 5.1 and 5.2 in the time of transport. Do not use naked flame and do not smoke.			
ADR/RID:		UN 1866 RESIN SOLUTIONS, FLAMMABLE, 3, III.			
UN No.	Name of the raw material	Hazard identification number	Warning label required	Classification Code	Packaging group
1866	RESIN SOLUTIONS, FLAMMABLE	30	3	F1	III
IMDG- Code:		RESIN SOLUTIONS, FLAMMABLE, CLASS 3, UN 1866, PG III. EmS: F-E, <u>S-E</u>			
ICAO/IATA:		No data available.			

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15. REGULATORY INFORMATION

Safety data sheet in accordance with Directives:

67/548/EWG(2006/121/WE)

91/155/EWG (2001/58/WE)

1999/45/EC (2006/8/WE)

2006/1907/WE REACH

Other regulations: ADR (2007-2009) , IMDG Code 2006 Edition

CONTAINS:

Contains Xylene, Isocyanates.. See information supplied by manufacturer.



HAZARD SYMBOL(S)

Xn Harmful

RISK-PHRASES:

R10 Flammable.
R20/21 Harmful by inhalation and in contact with skin.
R 36/38 Irritating to eyes and skin
R43 May cause sensitization by skin contact.

SAFETY-PHRASES:

S (2-) Keep out of the reach of children.
S 23 Do not breathe vapour/spray.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S 38 In case of insufficient ventilation, wear suitable respiratory equipment
S 46 If swallowed, seek medical advice immediately and show this container or label.

16. OTHER INFORMATION

Full text of the R and Phrases from section 2 and 3:

R10 Flammable.

R20/21 Harmful by inhalation and in contact with skin.

R36/38 Irritating to eyes and skin

R43 May cause sensitization by skin contact

R66 Repeated exposure may cause skin dryness or cracking.

R67 Vapours may cause drowsiness and dizziness.

Information contained herein is based on our current knowledge. This document does not constitute a warranty for product characteristics.

Issued by: NOVOL Sp. z o.o.

Information: Laboratory Research and Development; tel. +48 61 810 99 09