

SAFETY DATA SHEET

Page : 1

Revision nr : 9

Date : 22/2/2006

Supersedes : 2/12/2005

HARDENER 9985

HARDENER NO 2

www.lisam.com



Harmful

Producer

Visprox B.V.

Grijpensteinweg 19

2014 KX Haarlem Nederland

Tel. : (31) 023-5248131

Fax: (31) 023-5247862

Only in case of emergency call Visprox bv tel (+31)(0)

653293433

Responsible for distribution

Printex Marking Technologies

12113 Kirkham Rd

Poway, CA 92064

Tel 800.982.1928

1 IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

Identification of the product : Viscous liquid.
Trade name : HARDENER 9985
Type of product : Curing agent
Use : Industrial.
Producer/Manufacturer : See address above.
EMERGENCY TELEPHONE: : CHEMTREC (800-424-9300 within US) Outside US (703-527-3887)

2 COMPOSITION / INFORMATION ON INGREDIENTS

This product is considered to be hazardous and contains hazardous components.

Substance name	Value(s)	CAS No / EC No / EC Index	Symbol(s)	R-Phrase(s)
<u>2-methoxy-1-methylethyl acetate</u>	: 20 to 30 %	108-65-6 / 203-603-9 / 607-195-00-7	Xi	10-36
<u>Aliphatic poly isocyanate</u>	: 70 to 80 %	28182-81-2 / ----- / -----	Xi	42/43
<u>Hexamethylene-di-isocyanate</u>	: < 0.5 %	822-06-0 / 212-485-8 / 615-011-00-1	T	23-36/37/38-42/43

VOC(w%): 25

3 HAZARDS IDENTIFICATION

Main hazards : Flammable.
Irritating to eyes.
May cause sensitization by skin contact.

4 FIRST AID MEASURES

- Inhalation : If not breathing, give artificial respiration.
Remove victim to fresh air.
- Skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
- Eye contact : Seek medical advice.
In case of eye contact, immediately rinse with clean water for 10-15 minutes.
- Ingestion : If swallowed seek medical advice immediately and show this container or label.
DO NOT INDUCE VOMITING.
Depending on condition of the victim : Obtain medical attention.

5 FIRE-FIGHTING MEASURES

Extinguishing media : Dry chemical.
Carbon dioxide.
Alcohol resistant foam.
- Not to be used : Water.
Special exposure hazards : Heavier than air, vapours may travel long distances along ground, ignite and flash

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Page : 2

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5 FIRE-FIGHTING MEASURES (continued)

- back to source.
When heated to decomposition, emits dangerous fumes.
- Protection against fire : Wear self-contained breathing apparatus, rubber boots and thick rubber gloves.

6 ACCIDENTAL RELEASE MEASURES

- General precautions : Eliminate every possible source of ignition.
Personal precautions : Wear suitable protective clothing and gloves.
Environmental precautions : Prevent entry to sewers and public waters.
After spillage and/or leakage : Dike for recovery or absorb with appropriate (non-flammable) material.

7 HANDLING AND STORAGE

- General : Avoid all unnecessary exposure.
Store according to PGS 15.
- Precautions in handling and storage : Both local exhaust and good general room ventilation must be provided not only to control exposure but also to prevent formation of flammable mixtures.
Take precautionary measures against static discharges.
Use only non-sparking tools.
- Storage : Close cover tightly after use.
Keep away from food, drink and animal feeding stuffs.

8 EXPOSURE CONTROLS / PERSONAL PROTECTION

- Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
- Hand protection : Nitrilrubber Gloves.
- Skin protection : Wear suitable protective clothing.
- Eye protection : Eye protection, including both chemical splash goggles and face shield, must be worn when possibility exists for eye contact due to spraying liquid or airborne particles.
- Occupational Exposure Limits : 2-methoxy-1-methylethyl acetate : TLV-TWA [mg/m3] : 274 (8 h.)
2-methoxy-1-methylethyl acetate : TLV-TWA [ppm] : 50 (8 h.)
2-methoxy-1-methylethyl acetate : TLV-STEEL [mg/m3] : 548 (15 min.)
2-methoxy-1-methylethyl acetate : TLV-STEEL [ppm] : 100 (15 min.)
2-methoxy-1-methylethyl acetate : MAC [mg/m3] : 550
2-methoxy-1-methylethyl acetate : MAC [ppm] : 100
Hexamethylene-di-isocyanate : MAC [mg/m3] : 0.04
Hexamethylene-di-isocyanate : MAC [ppm] : 0.005

9 PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : Viscous liquid.
Colour : Clear.
Odour : Characteristic.
Initial boiling point [°C] : 150
Density : 1.07
Viscosity : >60S 6mm ISO-cup
Flash point [°C] : 54
Auto-ignition temperature [°C] : 425
Explosion limits - lower [%] : 1.5
Explosion limits - upper [%] : 10.8

SAFETY DATA SHEET

Page : 3

Revision nr : 9

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HARDENER NO 2

www.lisam.com

HARDENER NO 2

10 STABILITY AND REACTIVITY

- Hazardous decomposition products : On exposure to high temperature, may decompose, releasing toxic/flammable vapours.
- Materials to avoid : Strong oxidizers.
Strong alkalis.
Strong acids.
- Conditions to avoid : Extremely high or low temperatures.
Moisture.

11 TOXICOLOGICAL INFORMATION

- Rat oral LD50 [mg/kg] : >5000
- Rabbit dermal LD50 [mg/kg] : >2000
- Rat inhalation LC50 [mg/l/4h] : >20
- On ingredients : 2-methoxy-1-methylethyl acetate : Rat oral LD50 [mg/kg] : 8532
2-methoxy-1-methylethyl acetate : Rabbit dermal LD50 [mg/kg] : > 5000
2-methoxy-1-methylethyl acetate : Mutagenicity : No effects on laboratory animals.
2-methoxy-1-methylethyl acetate : Acute effects general : Irritating to eyes.
2-methoxy-1-methylethyl acetate : Acute effects at high concentrations : This material or its emissions may cause damage to kidney and liver and/or aggravate existing disorders.
2-methoxy-1-methylethyl acetate : Chronic effects : Longterm or repeated exposure can result in:redness, dryness, irritation, rash and inflammation of the skin and damage of kidney and liver.
Hexamethylene-di-isocyanate : Sensitization : May cause sensitization by inhalation and skin contact.
Hexamethylene-di-isocyanate : Acute effects general : Irritating to eyes and respiratory system.
Hexamethylene-di-isocyanate : Acute effects at high concentrations : Dizziness, drowsiness, confusion, headache, feeling of drunkenness and conscience impairment,
Hexamethylene-di-isocyanate : Chronic effects : Long exposure to low concentrations may lead to dermatitis, bronchitis and conjunctivitis.

12 ECOLOGICAL INFORMATION

- ABM(The Netherlands) : {9} Harmful to aquatic organisms.
Cleasing effort B
- LC50-96 Hour - fish [mg/l] : >100
- 48 Hour-EC50 - Daphnia magna [mg/l] : >100
- IC50 72h Algae [mg/l] : >100
- COD-value [mg/l] : No data available.
- BOD5-value [mg/l] : No data available.
- WGK class (Germany) : 1
- On ingredients : 2-methoxy-1-methylethyl acetate : Log P octanol / water at 20°C : .43
2-methoxy-1-methylethyl acetate : Surface water poluting. : Weakly.
2-methoxy-1-methylethyl acetate : Aquatic organisms. : Little harmful to fish and aquatic organisms.
2-methoxy-1-methylethyl acetate : Biodegradation [%] : 83
2-methoxy-1-methylethyl acetate : 96 Hour-LC50 - Minnow [mg/l] : 161
2-methoxy-1-methylethyl acetate : 48 H-CE50 - Daphnia magna [mg/l] : 408
2-methoxy-1-methylethyl acetate : Bioaccumulative potential : Not expected.
2-methoxy-1-methylethyl acetate : WGK class (Germany) : 1

13 DISPOSAL CONSIDERATIONS

- Disposal : Dispose in a safe manner in accordance with local/national regulations.
- Industrial waste number : Eural:200127.

SAFETY DATA SHEET

Page : 4

Revision nr : 9

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14 TRANSPORT INFORMATION

Hazard Label(s)



Shipping name : UN 1866 RESIN SOLUTION, 3, III
- H.I. nr : 30
- ADR/RID : Class : 3
Transport in accordance with 2.2.3.1.5 ADR (not regulated for containers <450l.)
Group : III
- IMO-IMDG : Packaging group: III
Class 3
Transport in accordance with 2.3.2.5 IMDG (not regulated for containers <30 l.)

15 REGULATORY INFORMATION

Symbol(s) : Harmful.
R Phrase(s) : R10 : Flammable.
R36 : Irritating to eyes.
R42/43 : May cause sensitization by inhalation and skin contact.
S Phrase(s) : S3 : Keep in a cool place.
S16 : Keep away from sources of ignition - No smoking.
S23 : Do not breathe the gas, fumes, vapours, spray.
S24 : Avoid contact with skin.
S26 : In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S35 : This material and its container must be disposed of in a safe way.
S36/37 : Wear suitable protective clothing and gloves.
S45 : In case of accident or if you feel unwell, seek medical advice immediately (show the label when possible).
S51 : Use only in well-ventilated areas.
S59 : Refer to manufacturer/supplier for information on recovery/recycling.
P Phrase(s) : P91-Contains isocyanates. See information supplied by the manufacturer.
P99:Contains : - Aliphatic poly isocyanate - Hexamethylene-di-isocyanate. May produce an allergic reaction.
Labelling : Contains :
Isocyanates.
Safety advises : This product contains isocyanates and can be irritating on the mucous membrane and the respiratory organs and cause an over-sensitive reaction. Inhalation vapours or spray may cause sensitisation. Processing this product, all precaution measures must be observed. Persons who suffer from an allergy, asthma or chronic disorder of the respiratory system, should not be involved in working with this product.

16 OTHER INFORMATION

Text of R-Phrases in § 2 : R10 : Flammable.
R23 : Toxic by inhalation.
R36 : Irritating to eyes.
R36/37/38 : Irritating to eyes, respiratory system and skin.
R42/43 : May cause sensitization by inhalation and skin contact.

The contents and format of this SDS are in accordance with EEC Commission Directive 2001/58/EC.

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