

SAFETY DATA SHEET

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Revision nr : 5

Date : 3/2/2006

Supersedes : 5/12/2005

POLYESTER BONDING IMPROVER

POLBOND

www.lisam.com

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 : POLYESTERBONDING IMPROVER
Type of product : Ink additive
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>Cyclohexanone</u>	: 5 to 15 %	108-94-1 / 203-631-1 / 606-010-00-7	Xn	10-20
<u>Ethyl-3-ethoxypropionate</u>	: 45 to 55 %	763-69-9 / 212-112-9 / -----		52/53

VOC(w%): 60

3 HAZARDS IDENTIFICATION

Main hazards : Flammable.
Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

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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 : Ethyl-3-ethoxypropionate : MAC [ppm] : 50
Cyclohexanone : TLV-TWA [ppm] : 25
Cyclohexanone : TLV-STEEL [ppm] : 50
Cyclohexanone : MAC [mg/m³] : 50 H; 15 min
Cyclohexanone : MAC [ppm] : 12.5 H; 15 min

9 PHYSICAL AND CHEMICAL PROPERTIES

- Physical state : Viscous liquid.
Colour : White.
Odour : Characteristic.
Initial boiling point [°C] : 156
Final boiling point [°C] : 165
Density : 1.0
Vapour pressure [hPa] : 4.5
Viscosity : >60S 6mm ISO-cup
Flash point [°C] : 45
Auto-ignition temperature [°C] : 377
Explosion limits - lower [%] : 1.0

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.

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11 TOXICOLOGICAL INFORMATION

Rat oral LD50 [mg/kg]	: >2000
Rabbit dermal LD50 [mg/kg]	: >2000
Rat inhalation LC50 [mg/l/4h]	: >20
On ingredients	: Ethyl-3-ethoxypropionate : Rat oral LD50 [mg/kg] : 4300 Ethyl-3-ethoxypropionate : Rabbit dermal LD50 [mg/kg] : > 20 Ethyl-3-ethoxypropionate : Rat inhalation LC50 [mg/l/4h] : > 1000 Ethyl-3-ethoxypropionate : Sensitization : No known effects from this product. Ethyl-3-ethoxypropionate : Acute effects general : Irritation to eyes. Ethyl-3-ethoxypropionate : Acute effects at high concentrations : Dizziness, drowsiness, confusion, headache, feeling of drunkenness and conscience impairment, Ethyl-3-ethoxypropionate : Chronic effects : Repeated or prolonged skin contact may cause dermatitis and defatting. Cyclohexanone : - Dermal : Absorbed through the skin. Cyclohexanone : Rat oral LD50 [mg/kg] : 1620 Cyclohexanone : Rabbit dermal LD50 [mg/kg] : 948 Cyclohexanone : Rat inhalation LC50 [mg/l/4h] : 11 Cyclohexanone : Acute effects general : Irritation to eyes, skin and respiratory tract. Cyclohexanone : Chronic effects : There are potential chronic health effects to consider. Cyclohexanone : Symptomes on intake of large quantities. : Dizziness, giddiness, headache, vomiting, heart rhythm disorder, distress of the central nervous system and consciousness disorder.

12 ECOLOGICAL INFORMATION

ABM(The Netherlands)	: {9} Harmful to aquatic organisms. Cleasing effort B
LC50-96 Hour - fish [mg/l]	: >10
48 Hour-EC50 - Daphnia magna [mg/l]	: >10
IC50 72h Algae [mg/l]	: >10
COD-value [mg/l]	: No data available.
BOD5-value [mg/l]	: No data available.
WGK class (Germany)	: 1
On ingredients	: Ethyl-3-ethoxypropionate : Surface water poluting. : Weakly. Ethyl-3-ethoxypropionate : Risk of drinking water polution (ground water). : Yes. Ethyl-3-ethoxypropionate : LC50-96 Hour - fish [mg/l] : 65 Ethyl-3-ethoxypropionate : 48 H-LC50 - Daphnia magna [mg/l] : > 480 Ethyl-3-ethoxypropionate : IC50 72h Algae [mg/l] : > 115 Ethyl-3-ethoxypropionate : WGK class (Germany) : 1 Cyclohexanone : Log P octanol / water at 20°C : .81 Cyclohexanone : Surface water poluting. : Weakly. Cyclohexanone : Biodegradation [%] : 87 Cyclohexanone : LC50-96 Hour - fish [mg/l] : > 500 Cyclohexanone : 48 H-LC50 - Daphnia magna [mg/l] : > 400 Cyclohexanone : IC50 72h Algae [mg/l] : 32.9 mg/l. Cyclohexanone : ThOD (gO2/g) : 2.605 Cyclohexanone : BOD 5 (gO2/g) : 1.232 Cyclohexanone : WGK class (Germany) : 1

13 DISPOSAL CONSIDERATIONS

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

14 TRANSPORT INFORMATION

Hazard Label(s)



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14 TRANSPORT INFORMATION (continued)

Shipping name : UN 1210 PRINTING INK / PRINTING INK RELATED MATERIAL, 3, III
- UN No. : 1210
- H.I. nr : 30
- ADR/RID : Group : III
Transport in accordance with 2.2.3.1.5 ADR (not regulated for containers <450l.)
Class : 3
- IMO-IMDG : Packaging group: III
Class 3
Transport in accordance with 2.3.2.5 IMDG (not regulated for containers <30 l.)
- ICAO/IATA : 1210

15 REGULATORY INFORMATION

Symbol(s) : None.
R Phrase(s) : R10 : Flammable.
R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
S Phrase(s) : S3 : Keep in a cool place.
S16 : Keep away from sources of ignition - No smoking.
S35 : This material and its container must be disposed of in a safe way.
S51 : Use only in well-ventilated areas.
S57 : Use appropriate container to avoid environmental contamination.
S59 : Refer to manufacturer/supplier for information on recovery/recycling.
S61 : Avoid release to the environment. Refer to special instructions/Safety data sheets.
P Phrase(s) : P201-For professional use only.

16 OTHER INFORMATION

Text of R-Phrases in § 2 : R10 : Flammable.
R20 : Harmful by inhalation.
R52/53 : Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

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