

SAFETY DATA SHEET

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Date : 23/1/2006

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THINNER NO 2 (VVD2)

NO 2

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Dangerous for the environment



Harmful

Producer

Visprox B.V.

Grijpensteinweg 19

2014 KX Haarlem Nederland

Tel. : (31) 023-5248131

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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 : Liquid.
Trade name : THINNER NO 2 (VVD-2)
Type of product : Solvent.
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>N-butyl acetate</u>	: 20 to 30 %	123-86-4 / 204-658-1 / 607-025-00-1		10-66-67
<u>Cyclohexanone</u>	: 12 to 22 %	108-94-1 / 203-631-1 / 606-010-00-7	Xn	10-20
<u>1-ethoxypropan-2-ol</u>	: 5 to 15 %	1569-02-4 / 216-374-5 / 603-177-00-8		10
<u>Benzene</u>	: < 0.05 %	71-43-2 / 200-753-7 / 601-020-00-8	F T	45-11-48/23/24/25
<u>Cumene</u>	: <= 3 %	98-82-8 / 202-704-5 / 601-024-00-X	Xn N	10-37-51/53-65
<u>Xylene</u>	: 5 to 10 %	1330-20-7 / 215-535-7 / 601-022-00-9	Xn	10-20/21-38
<u>Mesitylene</u>	: <= 5 %	108-67-8 / 203-604-4 / 601-025-00-5	Xi N	10-37-51/53
<u>1,2,4-trimethylbenzene</u>	: 10 to 15 %	95-63-6 / 202-436-9 / 601-043-00-3	Xn N Xi	10-20-36/37/38-51/53

VOC(w%): 100

3 HAZARDS IDENTIFICATION

Main hazards : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Harmful by inhalation, in contact with skin and if swallowed.
Flammable.

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.

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4 FIRST AID MEASURES (continued)

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 : When heated to decomposition, emits dangerous fumes.
Heavier than air, vapours may travel long distances along ground, ignite and flash back to source.

Protection against fire : Wear self-contained breathing apparatus, rubber boots and thick rubber gloves.

6 ACCIDENTAL RELEASE MEASURES

Personal precautions : Wear suitable protective clothing and gloves.

Environmental precautions : Prevent entry to sewers and public waters.

After spillage and/or leakage : Clean up any spills as soon as possible, using a non-flammable, absorbent material to collect it.

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 : N-butyl acetate : MAC [mg/m³] : 480
N-butyl acetate : WGD recommendation value (mg/m³) : 150
N-butyl acetate : MAC [ppm] : 100
Cyclohexanone : TLV-TWA [ppm] : 25
Cyclohexanone : TLV-STEL [ppm] : 50
Cyclohexanone : MAC [mg/m³] : 50 H; 15 min
Cyclohexanone : MAC [ppm] : 12.5 H; 15 min
1,2,4-trimethylbenzene : MAC [mg/m³] : 100 MAC TGG-15 min: 200
1,2,4-trimethylbenzene : MAC [ppm] : 20 MAC TGG-15 min: 40
1-ethoxypropan-2-ol : MAC [ppm] : 100
Xylene : TLV-TWA [mg/m³] : 435
Xylene : MAC [mg/m³] : 210 H
Xylene : MAC [ppm] : 50 H
Mesitylene : TLV-TWA [mg/m³] : 125
Mesitylene : TLV-TWA [ppm] : 25
Mesitylene : MAC [mg/m³] : 100 MAC TGG-15 min: 200
Mesitylene : MAC [ppm] : 20 MAC TGG-15 min:40
Cumene : TLV-TWA [mg/m³] : 246
Cumene : TLV-TWA [ppm] : 50
Cumene : MAC [mg/m³] : 245
Cumene : MAC [mg/m³] : 100

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9 PHYSICAL AND CHEMICAL PROPERTIES

Physical state	: Liquid.
Odour	: Characteristic.
Initial boiling point [°C]	: 166
Final boiling point [°C]	: 180
Density	: 0.876
Vapour pressure [hPa]	: 3
Flash point [°C]	: 46
Auto-ignition temperature [°C]	: 454
Explosion limits - lower [%]	: 0.74
Explosion limits - upper [%]	: 6.8
Log P octanol / water at 20°C	: 4

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.

11 TOXICOLOGICAL INFORMATION

Rat oral LD50 [mg/kg]	: >3000
Rabbit dermal LD50 [mg/kg]	: >3000
Rat inhalation LC50 [mg/l/4h]	: >6.2
Rat oral [mg/kg/24 hours]	: >2000
Rabbit-rat dermal [mg/kg/24 hours]	: >2000
On ingredients	: N-butyl acetate : Rat oral LD50 [mg/kg] : 10770 N-butyl acetate : Rabbit dermal LD50 [mg/kg] : > 17600 N-butyl acetate : Acute effects general : Irritation to eyes, skin and respiratory tract. N-butyl acetate : Acute effects at high concentrations : Exposure to high levels may result in: dizziness, breathing failure, distress of the central nervous system and consciousness disorder. N-butyl acetate : Symptomes on intake of large quantities. : Dizziness, giddiness, headache, vomiting, heart rhythm disorder, distress of the central nervous system and consciousness disorder. 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. 1,2,4-trimethylbenzene : Acute effects general : Nausea, vomiting, abdominal problems, irritation of the respiratory tract, risk of respiration pneumonia, risk of lung oedema, irritation of the eye fabric. 1,2,4-trimethylbenzene : Acute effects at high concentrations : Dizziness, giddiness, headache, vomiting, heart rhythm disorder, distress of the central nervous system and consciousness disorder. 1,2,4-trimethylbenzene : Chronic effects : Longterm or repeated exposure may cause kidney and liver damage or failure and change of blood composition 1-ethoxypropan-2-ol : Rat oral LD50 [mg/kg] : 4900 1-ethoxypropan-2-ol : Rabbit dermal LD50 [mg/kg] : 9500 1-ethoxypropan-2-ol : Sensitization : No known effects from this product. 1-ethoxypropan-2-ol : Acute effects general : May irritate eyes and skin. 1-ethoxypropan-2-ol : Acute effects at high concentrations : Irritation to eyes, skin and respiratory tract. Xylene : - Dermal : Absorbed through the skin.

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11 TOXICOLOGICAL INFORMATION (continued)

Xylene : Rat oral LD50 [mg/kg] : > 2000
Xylene : Rabbit dermal LD50 [mg/kg] : > 2000
Xylene : Rat inhalation LC50 [mg/l/4h] : > 5
Xylene : Mutagenicity : No effects on laboratory animals.
Xylene : Reproductive toxicity : Possible risk of harm to the unborn child.
Xylene : Acute effects general : Irritation to eyes, skin and respiratory tract.
Xylene : Acute effects at high concentrations : Dizziness, drowsiness, confusion, headache, feeling of drunkenness and conscience impairment,
Xylene : Chronic effects : Longterm or repeated exposure can result in:redness, dryness, irritation, rash and inflammation of the skin and damage of kidney and liver.
Xylene : Symptomes on intake of large quantities. : Aspiration of this material may cause chemical pneumonia.
Mesitylene : Acute effects general : Symptoms of exposure to vapours include drowsiness, weakness, headache, dizziness, nausea, vomiting, dimming of vision, abdominal pain, irritation of mucous membranes of nose, eyes and abdomen.
Mesitylene : Chronic effects : Longterm or repeated exposure can result in:redness, dryness, irritation, rash and inflammation of the skin and damage of kidney and liver.
Cumene : - Dermal : Absorbed through the skin.
Cumene : Acute effects general : Irritation to eyes, skin and respiratory tract.
Cumene : Acute effects at high concentrations : Symptoms of exposure to vapours include drowsiness, weakness, headache, dizziness, nausea, vomiting, dimming of vision, abdominal pain, irritation of mucous membranes of nose, eyes and abdomen.

12 ECOLOGICAL INFORMATION

ABM(The Netherlands) : Contains substances dangerous to the aquatic environment.
Cleansing effort A
{6} Toxic to aquatic organisms.

Biodegradation [%] : 78
LC50-96 Hour - fish [mg/l] : 18
48 Hour-EC50 - Daphnia magna [mg/l] : 21
WGK class (Germany) : 1

On ingredients : N-butyl acetate : Log P octanol / water at 20°C : 1.79 to 2.06
N-butyl acetate : Surface water poluting. : Weakly.
N-butyl acetate : Biodegradation [%] : 98 /28 d.
N-butyl acetate : LC50-96 Hour - fish [mg/l] : > 60
N-butyl acetate : 48 H-LC50 - Daphnia magna [mg/l] : > 10
N-butyl acetate : IC50 72h Algae [mg/l] : > 320
N-butyl acetate : ThOD (gO2/g) : 2.21
N-butyl acetate : BOD 5 (gO2/g) : .15 to .5
N-butyl acetate : Bioaccumulative potential : Not expected.
N-butyl acetate : : Little harmful to fish and aquatic organisms.
N-butyl acetate : 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
1,2,4-trimethylbenzene : : Danger of accumulation in the food chain.
1,2,4-trimethylbenzene : : Toxic to aquatic organisms.
1-ethoxypropan-2-ol : Log P octanol / water at 20°C : .621
1-ethoxypropan-2-ol : Biodegradation [%] : 91.5 (28 d.)
1-ethoxypropan-2-ol : 96 Hour-LC50 - Minnow [mg/l] : 3400
1-ethoxypropan-2-ol : 96 H-LC50 - Rainbow trout [mg/l] : > 100
1-ethoxypropan-2-ol : 48 H-LC50 - Daphnia magna [mg/l] : 3600
1-ethoxypropan-2-ol : 48 H-CE50 - Daphnia magna [mg/l] : > 100
1-ethoxypropan-2-ol : WGK class (Germany) : 1
Xylene : Log P octanol / water at 20°C : 3.1
Xylene : LC50-96 Hour - fish [mg/l] : > 1

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12 ECOLOGICAL INFORMATION (continued)

Xylene : 48 H-LC50 - Daphnia magna [mg/l] : > 1
Xylene : IC50 72h Algae [mg/l] : > 10
Xylene : : Toxic to aquatic life.
Xylene : WGK class (Germany) : 2
Mesitylene : : Toxic to aquatic organisms.
Mesitylene : : Danger of accumulation in the food chain.
Cumene : : Toxic to aquatic organisms.

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)



Shipping name : UN 1210 PRINTING INK / PRINTING INK RELATED MATERIAL, 3, III
- UN No. : 1210
- H.I. nr : 30
- ADR/RID : Class : 3
Group : III
- IMO-IMDG : Packaging group: III
Class 3
- IMDG-Marine pollution : Yes.
- ICAO/IATA : 1210

15 REGULATORY INFORMATION

Symbol(s) : Harmful.
Dangerous for the environment.

R Phrase(s) : R10 : Flammable.
R20/21/22 : Harmful by inhalation, in contact with skin and if swallowed.
R51/53 : Toxic 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.
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.
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.

P Phrase(s) : P201-For professional use only.

Labelling : Contains :
Cyclohexanone
Trimethyl benzene

16 OTHER INFORMATION

Text of R-Phrases in § 2 : R10 : Flammable.
R11 : Highly flammable.
R20 : Harmful by inhalation.
R20/21 : Harmful by inhalation and in contact with skin.
R36/37/38 : Irritating to eyes, respiratory system and skin.
R37 : Irritating to respiratory system.
R38 : Irritating to skin.

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16 OTHER INFORMATION (continued)

R45 : May cause cancer.
R48/23/24/25 : Toxic : danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
R51/53 : Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 : Harmful : may cause lung damage if swallowed.
R66 : Repeated exposure may cause skin dryness or cracking.
R67 : Vapours may cause drowsiness and dizziness.

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