



SAFETY DATA SHEET

Inopaz H₂O component B

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Version no.: 1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name: Inopaz H₂O component B

1.2 Relevant identified uses of the substance or mixture and uses advised against

Hardener for coating materials or adhesives for industrial and trade applications.

1.3 Details of the supplier of the safety data sheet

PAZKAR Ltd.

Alon Tavor Industrial zone

P.O.B. 2030

Afula 18000

Israel

Tel: +972-4-6423111

Fax: +972-4-8548870

E-mail address of person responsible for this SDS: info@pazkar.co.il

1.4 Emergency telephone number

Emergency telephone number (with hours of operation): N/A

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to 29 CFR 1910.1200 (OSHA HCS):

Acute Tox. 4 H332

Skin Sens. 1B H317

STOT SE 3 H335

Aquatic Chronic 3 H412

Classification in accordance to Regulation (EC) No. 1272/2008 (CLP):

Acute Tox. 4 H332

Skin Sens. 1B H317

STOT SE 3 H335

Aquatic Chronic 3 H412

See section 16 for the full text of the H-statements declared above.

2.2 Label elements

Labelling according to 29 CFR 1910.1200 (OSHA HCS)

Hazard pictogram(s):



Signal word: Warning



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Hazard statement(s):

H332: Harmful if inhaled.
H317: May cause an allergic skin reaction.
H335: May cause respiratory irritation.
H412: Harmful to aquatic life with long lasting effects.

Precautionary Statement(s):

P273: Avoid release to the environment.
P280: Wear protective gloves.
P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER or doctor/ physician if you feel unwell.

Labelling in accordance with Regulation 1272/2008 (CLP)

Hazard pictogram(s):



Signal word: Warning

Hazard statement(s):

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Supplemental Hazard information (EU):

EUH 204: Contains isocyanates. May produce an allergic reaction.

2.3 Other hazard

Not available

SECTION 3: Composition/information on ingredients

3.2 Mixtures:

Ingredient name	Identifiers	%	CLP Classification	OSHA HCS
Trade secret A	CAS number: N/A EC number: N/A	100	Skin Sens. 1B H317 Acute Tox. 4 H332 STOT SE 3 H335 Aquatic Chronic 3 H412	Skin Sens. 1B H317 Acute Tox. 4 H332 STOT SE 3 H335 Aquatic Chronic 3 H412



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This contains:

Ingredient name	Identifiers	%	CLP Classification	OSHA HCS
Trade secret B	CAS number: N/A EC number: N/A	50-90	Skin Sens. 1 H317 Acute Tox. 4 H332 STOT SE 3 H335 Aquatic Chronic 3 H412	Skin Sens. 1 H317 Acute Tox. 4 H332 STOT SE 3 H335 Aquatic Chronic 3 H412
Hexamethylene-1,6-diisocyanate	CAS number: 822-06-0 EC number: 212-485-8	<0.5	Acute Tox. 4 H302 Acute Tox. 1 H330 Skin Irrit. 2 H315 Eye Irrit. 2 H319 Resp. Sens. 1 H334 STOT SE 3 H335	Acute Tox. 4 H302 Acute Tox. 1 H330 Skin Irrit. 2 H315 Eye Irrit. 2A H319 Resp. Sens. 1 H334 STOT SE 3 H335

See section 16 for the full text of the H-statements declared above.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in section 8.

SECTION 4: First aid measures

4.1 Description of first aid measures

Eyes contact: In case of contact with eyes, rinse immediately with plenty of water for at least 15 minutes. Get medical attention.

Skin contact: Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Get medical attention.

Inhalation: Remove the victim from site of exposure to fresh air. If breathing is difficult, give oxygen. If not breathing give artificial respiration. Get medical attention.

Ingestion: **Do not induce vomiting.** If victim is conscious, wash mouth thoroughly with plenty of water. Never give anything by mouth to an unconscious person. Get medical attention.

4.2 Most important symptoms and effects, both acute and delayed

See section 2.2 (Label elements) and/or section 11 (Toxicological information) for the most important known symptoms and effects.

4.3 Indication of any immediate medical attention and special treatment needed

Not available

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable: Carbon dioxide (CO₂), foam, extinguishing powder. In case of large fires water spray should be used.

Not suitable: High volume water jet

5.2 Special hazards arising from the substance or mixture

Burning releases carbon monoxide, carbon dioxide, oxides of nitrogen, isocyanate vapors and traces of hydrogen cyanide. In the event of fire and/or explosion do not breathe fumes.



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5.3 Advice for firefighters

Special protective equipment for fire fighters: Fire fighters should wear full protective clothing and self-contained breathing apparatus in positive pressure mode.

Do not allow contaminated extinguishing water to enter the soil, ground-water or surface waters.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Ventilate area of spill. Keep away from sources of ignition. Evacuate personnel to safe areas.

6.2 Environmental precautions

Prevent entry into waterways, sewers, basements or confined areas.

6.3 Methods and materials for containment and cleaning up

Remove mechanically; cover the remainder with wet, absorbent material (e.g. sawdust, chemical binder based on calcium silicate hydrate, sand). After approx. one hour transfer to waste container and do not seal (evolution of CO₂!). Keep damp in a safe ventilated area for several days.

6.4 Reference to other sections

See Section 1 for emergency contact information.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapors, mist or gas. The precautions required in the handling of isocyanates must be taken. Provide sufficient air exchange and/or exhaust in work rooms. Exhaust ventilation necessary if product is sprayed. Wash thoroughly after handling. Handle in accordance with good industrial hygiene and safety practice.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also section 8 for additional information measures.

7.2 Conditions for safe storage, including any incompatibilities

Storage: Keep container dry and tightly closed in a cool and well ventilated place. Keep away from water, amines and alcohols.

7.3 Specific end use(s): N/A

SECTION 8: Exposure control/personal protection

8.1 Control parameters

Ingredient name	Occupational exposure limits
Hexamethylene-1,6-diisocyanate	ACGIH-TLV 0.005 ppm (TWA)

8.2 Exposure controls

Engineering measures

Use process enclosures, local exhaust ventilation, or others engineering controls to keep airborne levels below recommend exposure limits. If user operations generate aerosol or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.



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Person Protective measures

Respiratory protection: Respiratory protection required in insufficiently ventilated working areas and during spraying. An air-fed mask, or for short periods of work, a combination of charcoal filter and particulate filter is recommended.

Hand protection: Wear protective gloves to prevent skin exposure.

Suitable materials for safety gloves, EN 374:

Butyl rubber - IIR: thickness \geq 0.5mm, breakthrough time \geq 480 min.

Fluorinated rubber - FKM: thickness \geq 0.4mm, breakthrough time \geq 480 min.

Eye protection: Wear protective safety glasses/face protection.

Skin protection: Wear appropriate long-sleeved clothing to minimize skin contact.

Environmental exposure controls: Not available

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Colourless to yellowish liquid

Odour: almost odourless

Odour threshold: N/A

pH: N/A

Initial boiling point/boiling range: not applicable, decomposition

Flash point: ca. 195°C at 1013 mbar

Evaporation rate: N/A

Flammability: N/A

Upper/lower flammability or explosive limits: N/A

Vapor pressure: ca. 5 hPa at 20°C

ca. 10 hPa at 50°C

ca. 11 hPa at 55°C

Vapor density: N/A

Density: ca. 1.15 g/cm³ at 20°C

Solubility(ies): immiscible in water at 15°C

Partition coefficient Octanol/Water: N/A

Auto-ignition temperature: N/A

Decomposition temperature: N/A

Viscosity, dynamic: ca. 1004 mPa at 20°C

Explosive properties: N/A

Oxidizing properties: N/A

9.2 Other information

Pour point: ca. -42°C

Ignition temperature: ca. 430°C

SECTION 10: Stability and reactivity

10.1 Reactivity

Not available.

10.2 Chemical stability

The product is stable under normal handling and storage conditions described in Section 7.

Decomposition begins at 150°C.

10.3 Possibility of hazardous reactions

Exothermic reaction with amines and alcohols; reacts slowly with water forming CO₂, in closed containers risk of bursting owing to increase of pressure.



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10.4 Conditions to avoid

Heat.

10.5 Incompatible materials

Ammines, alcohols, water.

10.6 Hazardous decomposition products

Other decomposition products: not available

In the event of fire: see section 5

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:

Product/ingredient name	Test	Species	Dose
Trade secret A	LD50, Oral LC50, Inhalation	Rat Rat	>2000 mg/kg 390 mg/m ³ /4H
Hexamethylene-1,6-diisocyanate	LD50, Oral LD50, Administration onto the skin LC50, Inhalation	Rat Rabbit Rat	710 µL/kg 570 µL/kg 124 mg/m ³ /4
Trade secret B	LC50, Inhalation	Rat	18500 mg/m ³ /1H

Skin corrosion/irritation: No skin irritation (Toxicological studies of a comparable product).

Serious eye damage/irritation: No eye irritation (Toxicological studies of a comparable product).

Respiratory or skin sensitization: May cause sensitization by skin contact. (Toxicological studies of a comparable product).

Germ cell mutagenicity: No indication of mutagenic effects. (Toxicological studies of a comparable product).

Carcinogenicity: Not available

Reproductive toxicity: Not available

Specific target organ toxicity (single exposure): May cause respiratory irritation (Studies of a comparable product).

Specific target organ toxicity (repeated exposure): Not available

Aspiration hazard: Not available

Other symptoms: Special properties/effects: Over-exposure entails the risk of concentration-dependent irritating effects on eyes, nose throat, and respiratory tract. Delayed appearance of the complaints and development of hypersensitivity (difficult breathing, coughing, asthma) are possible. Hypersensitive persons may suffer from these effects even at low isocyanate concentrations. Prolonged contact with the skin may cause tanning and irritant effects.

Animal tests and other research indicate that skin contact with diisocyanates can play a role in causing isocyanate sensitization and respiratory reaction.



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SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Toxicity to algae	Toxicity to fish	Toxicity to crustaceans	Toxicity to bacteria
Trade secret A	IC50/72h - Scenedesmus subspicatus >100 mg/L	LC50/96h - Danio rerio - 28.3 mg/L	EC50/48h - Daphnia magna - >100 mg/L	IC50 > 10000 mg/l

Ecotoxicological reports on a comparable product.

12.2 Persistence and Degradability

Biodegradation: 2 %, 28 d, i.e. not readily degradable. (Ecotoxicological reports on a comparable product)

12.3 Bioaccumulative potential

Not available

12.4 Mobility in soil

Not available

12.5 Results of PBT and vPvB assessment

Not available

12.6 Other adverse effects

Isocyanate reacts with water at the interface forming CO₂ and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g. detergents) or by water soluble solvents. Previous experience shows that polyurea is inert and non-degradable.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste must be disposed of in accordance with federal, state and local environmental control regulations.

Packing

Empty containers should be taken for local recycling, recovery or waste disposal.

SECTION 14: Transport information

14.1 Un number

ADR/RID: -

IMDG: -

IATA: -

DOT (US): -

14.2 UN proper shipping name

ADR/RID: Not regulated

IMDG: Not regulated

IATA: Not regulated

DOT (US): Not regulated

14.3 Transport hazard class(es)

ADR/RID: -

IMDG: -

IATA: -

DOT (US): -



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14.4 Packing group

ADR/RID: - IMDG: - IATA: - DOT (US): -

14.5 Environmental hazard

ADR/RID: - IMDG: - IATA: - DOT (US): -

14.6 Special precautions for user

Not available

14.7 Transport to bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not available

SECTION 15: Regulatory information

This SDS complies with the following requirements of:
EU Regulation (EC) No.1907/2006 (REACH) including amendments
Regulation (EC) No.1272/2008 (CLP)
29 CFR 1910.1200 (OSHA HCS)

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

TSCA inventory

The components of the product are included on TSCA inventory.

15.2 Chemical safety assessment

Not available

SECTION 16: Other information

HMIS Rating

Health hazard: 2 Chronic Health Hazard: Flammability: 0 Physical Hazard 0

NFPA Rating

Health hazard: 2 Fire Hazard: 0 Reactivity Hazard: 0

Full text of Hazards Statements referred to in sections 2 and 3:

Skin Sens. - Skin sensitization
Acute Tox.- Acute toxicity
STOT SE - Specific target organ toxicity - single exposure
Skin Irrit. - Skin irritation
Eye Irrit. - Eye irritation
Resp. Sens. - Respiratory sensitization
Aquatic Chronic. - Hazardous to the aquatic environment
H302: Harmful if swallowed.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.



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H330: Fatal if inhaled.
H332: Harmful if inhaled.
H335: May cause respiratory irritation.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H412: Harmful to aquatic life with long lasting effects.
EUH 204 - Contains isocyanates. May produce an allergic reaction.

Training advice: Before using/handling the product one must read carefully present SDS.

Key Legend Information:

CAS- Chemical Abstract Service
ACGIH- American Conference of Governmental Industrial Hygienists
OSHA- Occupational Safety and Health Administration
NTP- National Toxicology program
IARC- International Agency for Research on Cancer
N/A- Not available
R-phrases- Risk phrases
H-statements- Hazard statements
TLV- Threshold Limit Value
TWA- Time-weighted average
STEL- Short-Term Exposure Limit
CSA- Chemical safety assessment

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