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

Product identifier

Product code **NB80**
Product name **UV Adhesion Promoter**
Product category **Ink Product**

Other means of identification

Synonyms None

Recommended use of the chemical and restrictions on use

Recommended use Printing operations

Details of the supplier of the safety data sheet

UNITED STATES	UNITED KINGDOM
Nazdar Company	Nazdar Limited
8501 Hedge Lane Terrace	Barton Road
Shawnee, KS 66227	Heaton Mersey
Tel: 1-913-422-1888	Stockport, England SK4 3EG
Tel: 1-800-677-4657	Tel: +44 161 442 2111
Fax: 1-913-422-2294	
www.nazdar.com	

Emergency telephone number

USA: Chemtrec: 1-800-424-9300
Outside USA: Chemtrec: 1-703-527-3887
24 Hour Emergency Phone Number

2. HAZARDS IDENTIFICATION

Classification

Acute toxicity - Inhalation (Dusts/Mists)	Category 4 - (H332)
Respiratory sensitization	Category 1 - (H334)
Skin sensitization	Category 1 - (H317)
Specific target organ toxicity (single exposure)	Category 3 - (H335)
Specific target organ toxicity (repeated exposure)	Category 2 - (H373)

Label elements



Signal Word
Danger

Hazard Statements

H317 - May cause an allergic skin reaction
H332 - Harmful if inhaled
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 - May cause respiratory irritation
 H373 - May cause damage to organs through prolonged or repeated exposure
 EUH208 - May produce an allergic reaction

Precautionary Statements

P260 - Do not breathe dust/fume/gas/mist/vapors/spray
 P271 - Use only outdoors or in a well-ventilated area
 P272 - Contaminated work clothing should not be allowed out of the workplace
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P285 - In case of inadequate ventilation wear respiratory protection
 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 if you feel unwell
 P333 + P313 - If skin irritation or rash occurs: Get medical advice/attention
 P342 + P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
 P363 - Wash contaminated clothing before reuse
 P403 + P233 - Store in a well-ventilated place. Keep container tightly closed
 P405 - Store locked up
 P501 - Dispose of contents/containers in accordance with local regulations

Hazards not otherwise classified (HNOC)

No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Component	CAS-No	Weight %	Trade Secret	Note
Hexamethylene diisocyanate homopolymer	28182-81-2	60 - 100	*	
Hexamethylene diisocyanate	822-06-0	< 0.5	*	

*The exact percentage (concentration) of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

General Advice Show this safety data sheet to the doctor in attendance.
Eye Contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get medical attention if irritation develops and persists.
Skin Contact Wash off immediately with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. If irritation (redness, rash, blistering) develops, get medical attention.
Inhalation Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration. Get medical attention immediately.
Ingestion Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Most important symptoms and effects, both acute and delayed

None under normal use conditions.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Foam. Carbon dioxide (CO2). Dry chemical. Water spray. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Specific Hazards Arising from the Chemical

May cause sensitization by inhalation and skin contact.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Cool containers / tanks with water spray. Sealed containers may rupture when heated.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal Precautions

Remove all sources of ignition. Ventilate the area. Avoid contact with eyes, skin and clothing. Avoid breathing dust or vapor. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

Environmental precautions

Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. Keep out of drains, sewers, ditches and waterways. Local authorities should be advised if significant spillages cannot be contained.

Methods and material for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Use clean non-sparking tools to collect absorbed material.

7. HANDLING AND STORAGE

Precautions for safe handling

Handling

Use personal protective equipment as required. Do not eat, drink or smoke when using this product. Ensure adequate ventilation.

Conditions for safe storage, including any incompatibilities

Storage

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep away from open flames, hot surfaces and sources of ignition. Keep container closed when not in use. Keep out of the reach of children.

Incompatible Products

Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure limits

Component	ACGIH TLV
Hexamethylene diisocyanate 822-06-0	TWA: 0.005 ppm

Component	Ontario TWAEV
Hexamethylene diisocyanate 822-06-0	TWA: 0.005 ppm TWA: 0.005 ppm CEV: 0.02 ppm

Appropriate engineering controls

Engineering Measures Provide a good standard of general ventilation. Natural ventilation is from doors, windows etc. Controlled ventilation means air is supplied or removed by a powered fan. Users are advised to consider national Occupational Exposure Limits or other equivalent values. In case of insufficient ventilation, wear suitable respiratory equipment.

Individual protection measures, such as personal protective equipment

Eye/face Protection Wear safety glasses with side shields (or goggles). If splashes are likely to occur. Wear suitable face shield. Ensure that eyewash stations and safety showers are close to the workstation location.

Skin Protection Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Respiratory Protection If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice. Wash hands before eating, drinking or smoking. Wash contaminated clothing before reuse. Avoid contact with eyes, skin and clothing. Wear suitable gloves and eye/face protection. Regular cleaning of equipment, work area and clothing is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State	Liquid	Appearance	Water-white
Odor	Characteristic	Odor Threshold	No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH		No data available
Melting point/freezing point		No data available
Boiling point/Boiling Range	> 149 °C / 300 °F	
Flash Point	> 94 °C / > 201 °F	Setaflash closed cup
Evaporation rate		No data available
Flammability Limit in Air		
Upper flammability limit		No data available
Lower flammability limit		No data available
Vapor Pressure		No data available
Vapor Density		No data available
Specific Gravity	1.17	
Water Solubility		No data available
Solubility in other solvents		No data available
Partition coefficient: n-octanol/water		No data available
Autoignition Temperature		No data available
Decomposition temperature		No data available
Kinematic viscosity		No data available
Dynamic viscosity		No data available

Explosive Properties No data available
Oxidizing Properties No data available

Other Information

Photochemically Reactive No
Weight Per Gallon (lbs/gal) 9.76

VOC by weight % (less water)	VOC by volume % (less water)	VOC lbs/gal (less water)	VOC grams/liter (less water)
0-1	0-1	0-1	2.34

10. STABILITY AND REACTIVITY

Reactivity

No information available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.

Incompatible materials

Strong acids. Strong bases. Strong oxidizing agents. Reducing agent.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors. Carbon dioxide (CO₂). Carbon monoxide.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

<p>Inhalation Eye Contact Skin Contact Ingestion</p>	<p>There is no data for this product. There is no data for this product. There is no data for this product. There is no data for this product.</p>
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Component	Oral LD50
Hexamethylene diisocyanate 822-06-0	710 mg/kg (Rat)

Component	LD50 Dermal
Hexamethylene diisocyanate 822-06-0	570 mg/kg (Rabbit)

Component	Inhalation LC50
Hexamethylene diisocyanate homopolymer 28182-81-2	18500 mg/m ³ (Rat) 1 h
Hexamethylene diisocyanate 822-06-0	0.29 mg/L (Rat) 1 h 0.15 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms There is no data for this product.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

<p>Skin corrosion/irritation Eye damage/irritation Irritation Corrosivity Sensitisation Mutagenic Effects Reproductive Effects STOT - single exposure STOT - repeated exposure Chronic Toxicity Aspiration hazard Carcinogenicity</p>	<p>There is no data for this product. There is no data for this product. There is no data for this product. There is no data for this product. May cause sensitization of susceptible persons. There is no data for this product. There is no data for this product. There is no data for this product. There is no data for this product. There is no data for this product. There is no data for this product. This product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP.</p>
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Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document mg/kg mg/l
 ATEmix (inhalation-dust/mist) 1.62 mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity

None known

0.2 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Component	Fish
Hexamethylene diisocyanate 822-06-0	96h LC50 Brachydanio rerio: 26.1 mg/L [static]

Persistence and Degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste Disposal Methods

Contain and dispose of waste according to local regulations.

Contaminated Packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION

DOT

Proper Shipping Name

Not regulated
 Printing Ink Related Material

ICAO / IATA / IMDG / IMO

Proper Shipping Name

Not Regulated
 Printing Ink Related Material

15. REGULATORY INFORMATION

International Inventories

All components are listed on the TSCA Inventory. For further information, please contact: Supplier (manufacturer/importer/downstream user/distributor).

U.S. Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

U.S. State Regulations

Component	Massachusetts Right To Know
Hexamethylene diisocyanate 822-06-0	X

Component	Minnesota Right To Know
Hexamethylene diisocyanate 822-06-0	X

Component	New Jersey Right To Know
Hexamethylene diisocyanate 822-06-0	X

California Prop. 65

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

Canada

No information available

16. OTHER INFORMATION

HMIS:	Health	Flammability	Reactivity	Personal Protection
	3 *	1	1	X

Key or legend to abbreviations and acronyms used in the safety data sheet

Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

TWA TWA (time-weighted average)
 STEL STEL (Short Term Exposure Limit)
 Ceiling Maximum limit value

ACGIH: (American Conference of Governmental Industrial Hygienists)

A1 - Known Human Carcinogen
 A2 - Suspected Human Carcinogen
 A3 - Animal Carcinogen

IARC: (International Agency for Research on Cancer)

Group 1 - Carcinogenic to Humans
 Group 2A - Probably Carcinogenic to Humans
 Group 2B - Possibly Carcinogenic to Humans

NTP: (National Toxicity Program)

Known - Known Carcinogen
 Reasonably Anticipated to be a Human Carcinogen

OSHA: (Occupational Safety & Health Administration)

X - Present

Revision Date Sep-09-2015

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of MSDS