



SAFETY DATA SHEET

Issue Date 01-Jun-2015

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Version 11

1. IDENTIFICATION

Product identifier

Product Name EF NYLOBOND BONDING AGENT

Other means of identification

Product Code NYBE9120

Synonyms NYBE9120XX; XX=01-99

Recommended use of the chemical and restrictions on use

Recommended Use Adhesives.

Uses advised against No information available

Details of the supplier of the safety data sheet

Manufacturer Address

PolyOne Corporation
10021 Rodney Street
Pineville, NC 28134
Tel: 704-553-0046

E-mail address Product_Safety_Specialty_Inks@polyone.com

Emergency telephone number

Emergency Telephone INFOTRAC 1-352-323-3500

2. HAZARDS IDENTIFICATION

Classification


OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute toxicity - Inhalation (Dusts/Mists)	Category 2
Respiratory sensitization	Category 1
Skin sensitization	Category 1
Carcinogenicity	Category 1B

Label elements

Emergency Overview

<p>Danger</p> <p>Hazard statements Fatal if inhaled May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause an allergic skin reaction May cause cancer</p> <div style="text-align: center;">  </div>	<p>Appearance No information available</p> <p>Physical state Liquid</p>	<p>Odor Slight</p>
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Precautionary Statements - Prevention

Obtain special instructions before use
 Do not handle until all safety precautions have been read and understood
 Use personal protective equipment as required
 Do not breathe dust/fume/gas/mist/vapors/spray
 Use only outdoors or in a well-ventilated area
 Wear respiratory protection
 In case of inadequate ventilation wear respiratory protection
 Contaminated work clothing should not be allowed out of the workplace
 Wear protective gloves

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention
 Specific treatment is urgent (see .? on this label)
 Specific treatment (see .? on this label)
 IF ON SKIN: Wash with plenty of soap and water
 If skin irritation or rash occurs: Get medical advice/attention
 Wash contaminated clothing before reuse
 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
 Immediately call a POISON CENTER or doctor/physician

Precautionary Statements - Storage

Store locked up
 Store in a well-ventilated place. Keep container tightly closed

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Not applicable

Other Information

Not applicable

Unknown acute toxicity 99 % of the mixture consists of ingredient(s) of unknown toxicity

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance

Chemical Name	CAS No.	Weight-%	Trade Secret
BENZENE-1,3-DIISOCYANATOMETHYL-	26471-62-5	0.1 - 1	*
2-METHYL-M-PHENYLENE DIISOCYANATE	91-08-7	0.1 - 1	*

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

4. FIRST AID MEASURES

Description of first aid measures

- General advice** Call 911 or emergency medical service. Remove and isolate contaminated clothing and shoes.
- Eye contact** In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Skin contact** Consult a physician if necessary. Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Wash off immediately with soap and plenty of water.
- Inhalation** Move victim to fresh air. If breathing is irregular or stopped, administer artificial respiration. Administer oxygen if breathing is difficult.
- Ingestion** Do NOT induce vomiting. Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.
- Self-protection of the first aider** Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

Most important symptoms and effects, both acute and delayed

Symptoms No information available.

Indication of any immediate medical attention and special treatment needed

Note to physicians May cause sensitization by inhalation and skin contact. May cause sensitization of susceptible persons.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media

Dry chemical, CO2, water spray or regular foam. Water spray, fog or regular foam. Move containers from fire area if you can do it without risk. Dike fire-control water for later disposal.

Unsuitable extinguishing media Do not scatter spilled material with high pressure water streams.

Specific hazards arising from the chemical

Some may burn but none ignite readily. Those substances designated with a "P" may polymerize explosively when heated or involved in a fire. Some may be transported hot.

Explosion data

Sensitivity to Mechanical Impact None.

Sensitivity to Static Discharge None.

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.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions Do not touch or walk through spilled material. Stop leak if you can do it without risk. Avoid inhalation of asbestos dust.

Environmental precautions

Environmental precautions Prevent entry into waterways, sewers, basements or confined areas. See section 12 for additional ecological information.

Methods and material for containment and cleaning up

Methods for containment Prevent dust cloud.

Methods for cleaning up Cover liquid spill with sand, earth or other non-combustible absorbent material. With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Take up with sand or other non-combustible absorbent material and place into containers for later disposal. Cover powder spill with plastic sheet or tarp to minimize spreading.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed in a dry and well-ventilated place
 Keep out of the reach of children
 Keep containers tightly closed in a cool, well-ventilated place

Incompatible materials None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
BENZENE-1,3-DIISOCYANATOMETHYL-26471-62-5	STEL: 0.005 ppm inhalable fraction and vapor TWA: 0.001 ppm inhalable fraction and vapor S*	-	-
2-METHYL-M-PHENYLENE DIISOCYANATE 91-08-7	STEL: 0.005 ppm inhalable fraction and vapor TWA: 0.001 ppm inhalable fraction and vapor S*	-	-

Chemical Name	Alberta OEL	British Columbia OEL	Manitoba OEL	New Brunswick OEL
BENZENE-1,3-DIISOCYANATOMETHYL-26471-62-5	Ceiling: 0.02 ppm Ceiling: 0.1 mg/m ³ TWA: 0.005 ppm TWA: 0.04 mg/m ³	TWA: 0.005 ppm Ceiling: 0.01 ppm Skin Dermal Sensitizer, Respiratory Sensitizer	TWA: 0.001 ppm STEL: 0.005 ppm	-
2-METHYL-M-PHENYLENE DIISOCYANATE 91-08-7	Ceiling: 0.02 ppm Ceiling: 0.1 mg/m ³ TWA: 0.005 ppm TWA: 0.04 mg/m ³	TWA: 0.005 ppm Ceiling: 0.01 ppm Skin Dermal Sensitizer, Respiratory Sensitizer	TWA: 0.001 ppm STEL: 0.005 ppm	-

Chemical Name	Newfoundland OEL	Northwest Territories OEL	Nova Scotia OEL	Nunavut OEL
BENZENE-1,3-DIISOCYANATOMETHYL-26471-62-5	TWA: 0.001 ppm STEL: 0.005 ppm	-	STEL: 0.005 ppm TWA: 0.001 ppm	-
2-METHYL-M-PHENYLENE DIISOCYANATE 91-08-7	TWA: 0.001 ppm STEL: 0.005 ppm	TWA: 0.005 ppm STEL: 0.02 ppm	STEL: 0.005 ppm TWA: 0.001 ppm	TWA: 0.005 ppm STEL: 0.02 ppm

Chemical Name	Ontario OEL	Prince Edward Island OEL	Quebec OEL	Saskatchewan OEL	Yukon OEL
BENZENE-1,3-DIISOCYANATOMETHYL-26471-62-5	TWA: 0.005 ppm STEL: 0.02 ppm Ceiling: 0.02 ppm	STEL: 0.005 ppm TWA: 0.001 ppm	TWA: 0.005 ppm TWA: 0.036 mg/m ³ STEL: 0.02 ppm STEL: 0.14 mg/m ³	-	-
2-METHYL-M-PHENYLENE DIISOCYANATE 91-08-7	TWA: 0.005 ppm STEL: 0.02 ppm Ceiling: 0.02 ppm	STEL: 0.005 ppm TWA: 0.001 ppm	-	TWA: 0.005 ppm STEL: 0.02 ppm	-

Appropriate engineering controls

Engineering Controls Minimize exposure by partial enclosure of the operation or equipment and provide extract ventilation at openings.

Individual protection measures, such as personal protective equipment

- Eye/face protection** Tight sealing safety goggles.
- Skin and body protection** Wear protective gloves and protective clothing.
- Respiratory protection** If exposure limits are exceeded or irritation is experienced, NIOSH/MSHA approved respiratory protection should be worn. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical state	Liquid	Odor	Slight
Appearance	No information available	Odor threshold	No information available
Color	light yellow		

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	7	
Melting point/freezing point	No information available	
Boiling point / boiling range	220 °C / 428 °F	
Flash point	No information available	CC (closed cup)
Evaporation rate	No information available	
Flammability (solid, gas)	No information available	
Flammability Limit in Air		
Upper flammability limit:	9.5	
Lower flammability limit:	0.9	
Vapor pressure	6	
Vapor density	No information available	
Specific Gravity	1.13	
Water solubility	No information available	
Solubility in other solvents	No information available	
Partition coefficient	No information available	
Autoignition temperature	430 °C / 806 °F	
Decomposition temperature	No information available	
Kinematic viscosity	No information available	
Dynamic viscosity	No information available	
Explosive properties	No information available	
Oxidizing properties	No information available	

Other Information

Softening point	No information available
Molecular weight	No information available
VOC Content	No information available
Density	No information available
Bulk density	No information available

10. STABILITY AND REACTIVITY

Reactivity

No data available

Chemical stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Extremes of temperature and direct sunlight.

Incompatible materials

None known based on information supplied.

Hazardous Decomposition Products

None known based on information supplied.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information No data available

Inhalation No data available.

Eye contact No data available.

Skin contact No data available.

Ingestion No data available.

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
BENZENE-1,3-DIISOCYANATE THYL- 26471-62-5	= 3060 mg/kg (Rat)	= 10000 mg/kg (Rabbit)	= 0.099 mg/L (Rat) 4 h

Information on toxicological effects

Symptoms No information available.

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

Sensitization No information available.
Germ cell mutagenicity No information available.
Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
BENZENE-1,3-DIISOCYANATE ATOMETHYL- 26471-62-5	A3	Group 2B	Reasonably Anticipated	X
2-METHYL-M-PHENYLENE DIISOCYANATE 91-08-7	A3	Group 2B	-	X

*ACGIH (American Conference of Governmental Industrial Hygienists)
 A3 - Animal Carcinogen
 IARC (International Agency for Research on Cancer)
 Group 2B - Possibly Carcinogenic to Humans
 NTP (National Toxicology Program)
 Reasonably Anticipated - Reasonably Anticipated to be a Human Carcinogen
 OSHA (Occupational Safety and Health Administration of the US Department of Labor)
 X - Present*

Reproductive toxicity No information available.
STOT - single exposure No information available.
STOT - repeated exposure No information available.
Chronic toxicity Repeated contact may cause allergic reactions in very susceptible persons. Avoid repeated exposure.
Aspiration hazard No information available.

Numerical measures of toxicity - Product Information

The following values are calculated based on chapter 3.1 of the GHS document .

ATEmix (oral) No information available
ATEmix (dermal) No information available
ATEmix (inhalation-gas) No information available
ATEmix (inhalation-dust/mist) 0 mg/l
ATEmix (inhalation-vapor) No information available

12. ECOLOGICAL INFORMATION

Ecotoxicity

0.1 % of the mixture consists of component(s) of unknown hazards to the aquatic environment

Persistence and degradability

No information available.

Bioaccumulation

No information available.

Other adverse effects

No information available

13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated packaging

Do not reuse container.

US EPA Waste Number

U223

Chemical Name	RCRA - Halogenated Organic Compounds	RCRA - P Series Wastes	RCRA - F Series Wastes	RCRA - K Series Wastes
BENZENE-1,3-DIISOCYANATOMETHYL-26471-62-5	-	-	-	Reactive waste Toxic waste waste number K027 Waste description: Centrifuge and distillation residues from toluene diisocyanate production.

14. TRANSPORT INFORMATION

DOT

Not regulated

TDG

Not regulated

MEX

Not regulated

ICAO (air)

Not regulated

IATA

Not regulated

IMDG

Not regulated

RID

Not regulated

ADR

Not regulated

ADN

Not regulated

15. REGULATORY INFORMATION

International Inventories

TSCA	Yes
DSL/NDSL	Yes
EINECS/ELINCS	Yes
ENCS	Yes
IECSC	Yes
KECL	Yes
PICCS	Yes
AICS	Yes

Legend:

- TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
- DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List
- EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
- ENCS - Japan Existing and New Chemical Substances
- IECSC - China Inventory of Existing Chemical Substances
- KECL - Korean Existing and Evaluated Chemical Substances
- PICCS - Philippines Inventory of Chemicals and Chemical Substances
- AICS - Australian Inventory of Chemical Substances

US Federal Regulations

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product contains a chemical or chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical Name	SARA 313 - Threshold Values %
BENZENE-1,3-DIISOCYANATOMETHYL- - 26471-62-5	0.1 1.0
2-METHYL-M-PHENYLENE DIISOCYANATE - 91-08-7	0.1 1.0

SARA 311/312 Hazard Categories

Acute health hazard	Yes
Chronic Health Hazard	Yes
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Chemical Name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)
BENZENE-1,3-DIISOCYANATOMETHYL- THYL- 26471-62-5	100 lb 10 lb	-	RQ 100 lb final RQ RQ 45.4 kg final RQ RQ 10 lb final RQ RQ 4.54 kg final RQ
2-METHYL-M-PHENYLENE DIISOCYANATE 91-08-7	100 lb	100 lb	RQ 100 lb final RQ RQ 45.4 kg final RQ

US State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Proposition 65

BENZENE-1,3-DIISOCYANATOMETHYL- - 26471-62-5	Carcinogen
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U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
BENZENE-1,3-DIISOCYANATOMETHYL- 26471-62-5	X	X	X
2-METHYL-M-PHENYLENE DIISOCYANATE 91-08-7	X	X	X

U.S. EPA Label Information

EPA Pesticide Registration Number Not applicable

16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

NFPA	Health hazards 2	Flammability 1	Instability 0	Physical and Chemical Properties -
HMIS	Health hazards 2	Flammability 1	Physical hazards 0	Personal protection C

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 SDS sections updated 9

Disclaimer

The information provided in this Material 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 Safety Data Sheet