

SAFETY DATA SHEET – SET

UPR Pole Repair™ No Flow Type UPR-NF Kit

Product ID numbers: UPR-NFKIT4, UPR-NFKIT12, UPR-NF6B10
UPR-NFXXX (where XXX is the package code.)

Date Compiled: 24 August 2017



Supplier/Manufacturer:

American Polywater Corporation
11222 - 60th Street North
Stillwater, MN 55082 USA
Tel: 1-651-430-2270
Email: sds@polywater.com

Polywater Europe BV
Zuidhaven 9-11 Unit B2
4761 CR Zevenbergen
Netherlands
Tel: +31 (0)10 2330578
Email: sds@polywater.com

Emergency telephone numbers

INFOTRAC: 1-800-535-5053 (USA) 1-352-323-3500 (INT'L)

This product is a kit or a multi-part product with independent components. An SDS for each component is included. Do not separate SDSs.

Contains

UPR-NF-A PoleRepair NO FLOW Part A SDS
UPR-NF-B PoleRepair NO FLOW Part B SDS

SDSs are classified according to EU Regulation (EC) No 1272/2008 and Australia WHS Regulation (2011).

Each Kit may or may not contain all SDS components

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.

SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company

1.1 Product identifier

Product Name:
UPR Pole Repair™ No Flow
UPR-NF (Part A) 10841A

Product ID numbers: UPR-NFKIT4, UPR-NFKIT12, UPR-NF6B10;
UPR-NFXXX (where XXX is the package code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Sealant, wood fill and pole repair, two-part material

List of advices against: Not applicable.

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer:

Polywater Europe BV
Zuidhaven 9-11 Unit B2
4761 CR Zevenbergen
Netherlands
Tel: +31 (0)10 2330578
Email: sds@polywater.com

American Polywater Corporation
11222 - 60th Street North
P.O. Box 53
Stillwater, MN 55082 USA
Tel: 1-651-430-2270
Email: sds@polywater.com

Local Contact Info

1.4 Emergency telephone numbers

USA (supplier)
+1-651-430-2270

Europe (supplier)
+31 (0)10 2330578

INFOTRAC 1-800-535-5053 (USA) +1-352-323-3500 (International)

National Poison Information Centre (NVIC): +31(0)30 274 8888
(Professional use for acute poisoning only, Netherlands.)
Insert local poison control information here.

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to EU Regulation (EC) No 1272/2008 and Australia WHS Regulation (2011).

Acute Toxicity, Cat 4; H332
Skin Irritation, Cat 2; H315
Eye Irritation, Cat 2; H319
Respiratory Sensitization, Cat 1; H335
Skin Sensitization, Cat 1; H317
Carcinogenicity, Cat 2; H351
Target Organ Toxicity (single exposure), Cat 3
Target Organ Toxicity (repeated exposure), Cat 2; H373

2.2 Label elements

Contains: Polymeric diphenylmethane diisocyanate; 4,4'-Diphenylmethane diisocyanate (MDI)



Pictograms:

Signal word: Danger**Hazard Statements:**

H332 Harmful if inhaled.
 H315 Causes skin irritation.
 H317 May cause an allergic skin reaction.
 H319 Causes serious eye irritation.
 H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
 H351 Suspected of causing cancer.
 H335 May cause respiratory irritation.
 H373 May cause damage to organs through prolonged or repeated inhalative exposure.

Supplemental Hazard Statement

EUH304 Contains isocyanates. May produce an allergic reaction.

Precautionary Statements:

P260 Do not breathe dust, vapor, or spray.
 P284 In case of inadequate ventilation wear respiratory protection.
 P280 Wear protective gloves, protective clothing and eye protection.
 P304 + P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
 P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
 P308 + P313 IF exposed or concerned: Get medical advice.

Notes:

4,4'-methylenediphenyl diisocyanate (MDI) has not been designated as a carcinogen by IARC, NTP, ACGIH, OSHA, or the United States EPA. There are inadequate human carcinogenicity data, and only limited animal data. Additionally, the IARC Working Group noted that tumorigenic effects observed in animals may be attributed to non-specific particle effect (IARC monograph 71). Monomeric MDI (CAS # 101-68-8) has an EU harmonized classification (Annex VI to CLP) including Carc 2 (H351), but we do not expect this product to pose a carcinogenic hazard if users avoid inhalation of vapor above exposure limits.

2.3 Other hazards:**Information according to XVII. 56 REACH**

Persons already sensitized to diisocyanates may develop allergic reactions when using this product. Persons suffering from asthma, eczema or skin problems should avoid contact, including dermal contact, with this product. This product should not be used under conditions of poor ventilation unless a protective mask with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used. Pregnant women should absolutely avoid inhalation and skin contact.

3. Composition/Information on Ingredients

<u>Component</u>	<u>CAS #</u>	<u>EC #</u>	<u>Wt. %</u>	<u>GHS/CLP Classification</u>
Polymeric diphenylmethane diisocyanate	9016-87-9		30 - 60	Acute Tox 4, Skin Irrit 2, Eye Irrit 2, Resp Sens1, STOT SE 3, STOT RE 2
4,4'-Diphenylmethane diisocyanate (MDI)	101-68-8	202-966-0	30 - 60	Acute Tox 4, Skin Sens 1, Skin Irrit 2, Eye Irrit 2, Resp Sens1, STOT SE 3, Carc 2, STOT RE 2
Phosphoric Acid, Triethyl Ester	78-40-0	201-114-5	1 - 5	Acute Tox 4 (ingestion), Eye Irrit. 2

4. First Aid Measures**4.1 Description of first aid measures**

Eye Contact: Immediately flush eyes with large quantity of water for 15 minutes. Seek medical attention.

- Skin Contact:** Remove contaminated clothing; flush skin thoroughly with soap and water. If irritation occurs, seek medical attention.
- Inhalation (Breathing):** If irritation of nose or throat develops, move to fresh air. If irritation persists, seek medical attention.
- Ingestion (Swallowing):** If swallowed, rinse mouth and drink plenty of water. Do not induce vomiting. If patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person. Do not leave victim unattended. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

May cause allergic skin and respiratory reaction. Refer to Section 11 for more information.

4.3 Indication of immediate medical attention and special treatment needed.

No information available.

5. Firefighting Measures

5.1 Extinguishing media:

Water Fog, Carbon Dioxide, Dry Chemical or Foam.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition and by-products:

Carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be used to cool fire exposed container to prevent pressure build-up and possible auto-ignition or rupture.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear full protective clothing, including appropriate respiratory protection.

6.2 Environmental precautions:

Prevent from entering waterways.

6.3 Methods materials for containment and cleaning up:

Spills expected to be small quantities. Collect excess material with absorbents or wipe with dry towels. Wash with a dilute ammonia solution.

6.4 Reference to other sections:

Refer to Sections 4, 5, 8, and 13 for more information.

7. Handling and Storage

7.1 Precautions for safe handling

Use and store this product with adequate ventilation. Avoid inhalation of vapors and personal contact with the product. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Wash thoroughly after handling. Wash contaminated clothing before reuse. For industrial or professional use only.

7.2 Conditions for safe storage, including incompatibilities

Keep containers cool, dry, and away from sources of ignition. Keep cartridges capped and sealed. Protect from freezing. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

7.3 Specific end uses

See technical data sheet on this product for further information.

8. Exposure Controls / Personal Protection

8.1 Control parameters

Exposure limits and recommendations:

Country/Source

Component

Long-term

Short-term

		exposure limit 8 hr TWA	exposure limit – 15 min
ECHA - DNEL	4,4'-Diphenylmethane diisocyanate (MDI)	0,05 mg/m ³	--
U.K. EH 40 WEL	All Isocyanates as NCO	0,02 mg/ m ³	0,07 mg/ m ³
Germany – AGS, DFG	4,4'-Diphenylmethane diisocyanate (MDI)	0,05 mg/ m ³	0,05 mg/ m ³
Germany – AGS, DFG	Polymeric diphenylmethane diisocyanate	0,05 mg/ m ³	0,05 mg/ m ³
France	4,4'-Diphenylmethane diisocyanate (MDI)	0,01 ppm	0,02 ppm
Spain	4,4'-Diphenylmethane diisocyanate (MDI)	0,052 mg/ m ³	--
Austria	4,4'-Diphenylmethane diisocyanate (MDI)	0,005 ppm	0,01 ppm
Belgium	4,4'-Diphenylmethane diisocyanate (MDI)	0,005 ppm	--
Denmark	4,4'-Diphenylmethane diisocyanate (MDI)	0,005 ppm	0,01 ppm
Hungary	4,4'-Diphenylmethane diisocyanate (MDI)	0,05 mg/ m ³	0,05 mg/ m ³
Ireland	All Isocyanates as NCO	0,02 mg/ m ³	0,07 mg/ m ³
Poland	4,4'-Diphenylmethane diisocyanate (MDI)	0,05 mg/ m ³	0,2 mg/ m ³
Sweden	4,4'-Diphenylmethane diisocyanate (MDI)	0,002 ppm	0,005 ppm
Australia OEL	All Isocyanates as NCO	0.02 mg/m ³	0.07 mg/m ³

Biological Limit Values (BLV): None established for this material or its components

8.2 Exposure controls

Respiratory protection:

Use with adequate ventilation to keep vapor concentration below acceptable limits. Product dispensed through a static mixer and used as directed emits less than 0.001 ppm MDI vapor as tested by OSHA 47. Ventilation is not required for standard use. If ventilation is not adequate, use approved chemical/mechanical filters designed to remove a combination of particulate and organic vapors in open and restricted areas (combination filter: ABEKP). Use approved airline type respirators or hoods in confined areas.

Hand protection (protective gloves):

Gloves made from Nitrile rubber (Material thickness >0,1 mm for short time contact) are recommended. Gloves should be replaced after each short time contact or contamination. In the case of longer contact protective gloves made from nitrile rubber are recommended according to EN 374. Material thickness > 0,4 mm Perforation time > 480 minutes.

Eye protection:

Goggles which can be tightly sealed.

Skin protection (protective clothing):

Wear suitable protective clothing. Chemical resistant clothing made from nitrile rubber impregnated fabric is recommended. Remove and wash contaminated clothing before reuse. Discard contaminated shoes. Use protective cream if skin contact is likely.

9. Physical and Chemical

9.1 Information of basic physical and chemical properties

Appearance:	Brown liquid
Odor threshold:	Faint, aromatic odor
pH:	Does not apply
Freezing point:	3°C
Boiling point:	200°C
Flash point:	220°C (open cup)
Evaporation rate:	Not available
Flammability (solid, gas):	Does not apply
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	.00016 mm Hg @ 20°C
Vapor density (Air = 1):	1,22 g/cm ³
Specific gravity (H ₂ O = 1):	1,22 @ 25°C

Solubility in water:	Reacts
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	> 250°C
Decomposition temperature:	Not available
Viscosity:	200 mPas @ 25°C

9.2 Other Information

Volatiles (Weight %):	0%
VOC Content:	0 g/l

10. Stability and Reactivity

10.1 Reactivity:

Reacts with water, reacts with substances which contain active hydrogen.

10.2 Chemical stability:

Stable

10.3 Possibility of hazardous reactions:

Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid:

Avoid freezing, high temperatures, flame, high humidity and water contamination.

10.5 Incompatible materials :

Water, alcohols, amines, acids, alkalis, metal compounds.

10.6 Hazardous decomposition products:

Carbon monoxide, hydrogen cyanide, nitrogen oxides, aromatic isocyanates, gases/vapors.

11. Toxicological Information

11.1 Information on toxicological effects:

Acute toxicity

Eye contact:

Direct eye contact with material or vapors may cause eye irritation.

Skin contact:

Persons with pre-existing skin disorders may be more susceptible to skin irritation from this material. Allergic skin reaction symptoms include redness, swelling, blistering and itching.

Irritation and Sensitization Potential:

Product may be irritating to skin and eyes.

Inhalation (Breathing):

Material has low vapor pressure and inhalation hazard is expected to be minimal. Vapor exposure may cause irritation of the nose and throat. Symptoms may include burning sensation, coughing and shortness of breath, or other signs of respiratory distress. May cause allergic respiratory reaction below exposure guideline in susceptible individuals.

Ingestion:

Ingestion may cause irritation of the gastrointestinal tract.

Toxicity to Animals:

4,4'-Diphenylmethane diisocyanate (MDI):	LD ₅₀ (oral rat) >2000 mg/kg
	LD ₅₀ (dermal rabbit) >9400 mg/kg
	LC ₁₀ (inhl rat) 2,24 mg/m ³ , 1 hour, aerosol form

Aspiration Hazard:

No aspiration hazard expected.

Chronic Exposure:

Reproductive Toxicity:	Not available.
Mutagenicity:	Not available.
Teratogenicity:	Not available.
Specific Target Organ Toxicity (STOT)	Contains material which causes damage to the upper respiratory tract.
Toxicologically Synergistic Products:	Not available.
Carcinogenic Status:	4,4'-methylenediphenyl diisocyanate (MDI) has not been designated as a carcinogen by IARC, NTP, ACGIH, OSHA, or the United States EPA. There are inadequate human carcinogenicity data, and only limited animal data. Additionally, the IARC Working Group noted that tumorigenic effects observed in animals may be attributed to non-specific particle effect (IARC monograph 71). Monomeric MDI (CAS # 101-68-8) has an EU harmonized classification (Annex VI to CLP) including Carc 2 (H351), but we do not expect this product to pose a carcinogenic hazard if users avoid inhalation of vapor above exposure limits.

Respiratory/Skin Sensitization

May cause sensitization by inhalation and skin contact..

12. Ecological Information

12.1 Toxicity:

Aquatic Toxicity:

4,4'-Diphenylmethane diisocyanate (MDI):	LC ₅₀ (96 hr): > 1000 mg/l Brachydanio rerio (fish) OECD Guideline 203 static
4,4'-Diphenylmethane diisocyanate (MDI):	EC ₅₀ (24 hr): > 1000 mg/l Daphnia magna (invertebrate) OECD Guideline 202, part 1 static
4,4'-Diphenylmethane diisocyanate (MDI):	EC ₅₀ (72 hr): 1640 mg/l Green algae (aquatic plants) OECD Guideline 201 static

12.2 Persistence and degradability:

Elimination information:
<10% BOD of the ThOD (28d)
(OECD Guideline 302 C, aerobic, activated sludge)
Under test conditions, poorly biodegradable.

12.3 Bioaccumulation potential:

Accumulation in organisms is not to be expected.

12.4 Mobility in soil:

Adsorption to solid soil phase is not expected

12.5 Results of PBT and vPvB Assessment:

This product is not, nor does it contain a substance that is a PBT or vPvB.

12.6 Other adverse effects:

None known.

13. Disposal Considerations

13.1 Waste Disposal

Incinerate or dispose of in a licensed facility. Do not discharge substance/product into sewer system.
Dispose of waste and residue in accordance with local authority requirements.
Waste code: 08 05 01 Waste isocyanates

14. Transport Information

UN Number:	Not Listed
UN Proper shipping name:	Not Applicable
Transport hazard class(es):	Not Applicable
Packing group:	Not Applicable
Environmental hazards:	None known
Special precautions:	None known
TDG:	Not Regulated

ICAO/IATA-DGR:	Not Regulated
IMDG:	Not Regulated
ADR/RID:	Not Regulated

15. Regulatory Information

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

European Union

Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Contains no substance on the REACH candidate list $\geq 0.1\%$ SCL. Does not contain notified substances from the ELINCS List, Directive 92/32/EEC. Meets labeling and kitting requirements found in Entry 56 of Annex XVII.

Australia

All components are listed on the AICS.
Contains 4,4'-Diphenylmethane diisocyanate (MDI) listed on the National Pollutant Inventory (NPI)
Hazardous according to criteria of NOHSC Australia.

USA Federal and State

All components are listed on the TSCA inventory.

Canada

All components are listed on the DSL inventory.
This product has been classified according to the hazard criteria of the CPR.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for the mixture by the supplier.

16. Other Information

Abbreviations and acronyms:

OSHA = Occupational Safety and Health Administration
CLP = Classification, Labeling and Packaging Regulation
STOT = Specific Target Organ Toxicity
LD₅₀ = Median Lethal Dose
DNEL = Derived No Effect Level
ACGIH = American Conference of Governmental Industrial Hygienists
TSCA = Toxic Substances Control Act (USA)
DSL = Domestic Substances List (Canada)
AICS = Australian Inventory of Chemical Substances

Mixture classification according to Regulation (EC) No 1272/2008:

H332	Harmful if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H351	Suspected of causing cancer.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated inhalative exposure.

Classification Procedure

Calculation method.
Calculation method.
Calculation method.
Calculation method.
Calculation method.
Calculation method.
Calculation method.
Calculation method.

Revision Date: 9 August 2017
Revision Number: 6 EU
Supersedes: 5 October 2015

Product Name: UPR Pole Repair™ No Flow Compound Type NF (Part A)

Revision Date: 9 August 2017

Indication of Changes: Updated sections 1, 2, 8, 9, 16: new product codes, updated hazard and precaution phrases, new exposure data, formatting updates.
Written in accordance with the provisions of REACH Annex II (EU No 453/2010) and Australia WHS Regulation (2011). (GHS format)

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.

SAFETY DATA SHEET

1. Identification of the substance/mixture and of the company

1.1 Product identifier

Product Name:
UPR Pole Repair™ No Flow
UPR-NF (Part B) 10841B

Product ID numbers: UPR-NFKIT4, UPR-NFKIT12, UPR-NF6B10;
UPR-NFXXX (where XXX is the package code.)

1.2 Relevant identified uses of the mixture and uses advised against

Identified uses: Sealant, wood fill and pole repair, two-part material

List of advices against: Not applicable.

1.3 Details of the supplier of the safety data sheet

Supplier/Manufacturer:

Polywater Europe BV
Zuidhaven 9-11 Unit B2
4761 CR Zevenbergen
Netherlands
Tel: +31 (0)10 2330578
Email: sds@polywater.com

American Polywater Corporation
11222 - 60th Street North
P.O. Box 53
Stillwater, MN 55082 USA
Tel: 1-651-430-2270
Email: sds@polywater.com

Local Contact Info

1.4 Emergency telephone numbers

INFOTRAC 1-800-535-5053 (USA) +1-352-323-3500 (International)

National Poison Information Centre (NVIC): +31(0)30 274 8888
(Professional use for acute poisoning only, Netherlands.)
Insert local poison control information here.

2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to EU Regulation (EC) No 1272/2008 and Australia WHS Regulation (2011).

Skin Irritation, Cat 2; H315

Skin Sens, Cat 1, H317

Eye Irritation, Cat 2; H319

Carc, Cat 2, H351

Target Organ Toxicity (repeated exposure), Cat 2; H373

Chronic Aquatic Tox, Cat 2, H411

2.2 Label elements

Contains:

Diethyltoluenediamine (DETDA), 4,4'-methylenebis(2-ethylaniline), Modifiend
Isophoronediamine



Pictograms:

Signal word: Warning

Hazard Statements:

H315 Causes skin irritation.

H317 May cause an allergic skin reaction

- H319 Causes serious eye irritation.
- H351 Suspected of causing cancer
- H373 May cause damage to organs through prolonged or repeated inhalative exposure.
- H411 Toxic to aquatic life with long lasting effects.

Precautionary Statements:

- P273 Avoid release to the environment.
- P280 Wear protective gloves, protective clothing and eye protection.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P337 + P313 If eye irritation persists: Get medical attention.
- P501 Dispose in accordance with local regulations.

2.3 Other hazards: No information available.

3. Composition/Information on Ingredients

<u>Component</u>	<u>CAS #</u>	<u>EC #</u>	<u>Wt. %</u>	<u>GHS/CLP Classification</u>
Polyether polyol mixture	Proprietary	--	60 - 100	--
Diethyltoluenediamine (DETDA)	68479-98-1	270-877-4	1 - 5	Acute Tox. 4 Eye Irrit. 2 STOT RE 2 Aquatic Acute 1 Aquatic Chronic 1
4,4'-methylenebis(2-ethylaniline)	19900-65-3	243-420-1	1 - 5	Acute Tox. 4 Carc 2 Aquatic Acute 1 Aquatic Chronic 2
Modifiend Isophoronediamine	90530-15-7	292-053-3	1 - 5	Acute Tox 4 Skin Sens 1 Eye Irrit. 2
Tertiary amine compounds	Proprietary	--	0.1 - 1	--

4. First Aid Measures

4.1 Description of first aid measures

- Eye Contact:** Immediately flush eyes with large quantity of water for 15 minutes. Seek medical attention.
- Skin Contact:** Remove contaminated clothing; flush skin thoroughly with soap and water. If irritation occurs, seek medical attention.
- Inhalation (Breathing):** If irritation of nose or throat develops, move to fresh air. If irritation persists, seek medical attention.
- Ingestion (Swallowing):** If swallowed, get medical attention. Do not induce vomiting. If patient is conscious, wash out mouth with water. Never give anything by mouth to an unconscious person. Do not leave victim unattended.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of immediate medical attention and special treatment needed.

No information available.

5. Firefighting Measures

5.1 Extinguishing media:

Water Fog, Carbon Dioxide, Dry Chemical or Foam.

5.2 Special hazards arising from the substance or mixture

Hazardous decomposition and by-products:

Carbon monoxide, carbon dioxide, nitrogen oxides, nitric acid, ammonia, aldehydes, nitrosamine, and silicon dioxide.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water spray may be used to cool fire exposed container to prevent pressure build-up and possible auto-ignition or rupture.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures:

Wear full protective clothing, including appropriate respiratory protection.

6.2 Environmental precautions:

Prevent from entering waterways.

6.3 Methods materials for containment and cleaning up:

Spills expected to be small quantities. Collect excess material with absorbents or wipe with dry towels. Wash with a dilute ammonia solution.

6.4 Reference to other sections:

Refer to Sections 4, 5, 8, and 13 for more information.

7. Handling and Storage

7.1 Precautions for safe handling

Use and store this product with adequate ventilation. Avoid inhalation of vapors and personal contact with the product. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Wash thoroughly after handling. Wash contaminated clothing before reuse. For industrial or professional use only.

7.2 Conditions for safe storage, including incompatibilities

Keep containers dry and away from excessive heat. Keep cartridges capped and sealed. Protect from freezing. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations.

7.3 Specific end uses

See technical data sheet on this product for further information.

8. Exposure Controls / Personal Protection

8.1 Control parameters

Exposure limits and recommendations:

Contains no components with established Occupational Exposure Limit (OEL) values.

8.2 Exposure controls

Respiratory protection:

Use with adequate ventilation to keep vapor concentration below acceptable limits.

Protective gloves:

The use of chemically resistant gloves is recommended to prevent skin contact. Suitable materials include neoprene, butyl rubber, Viton, Buna N, and chlorinated polyethylene.

Eye protection:

Safety glasses recommended.

Other protective equipment:

Use protective cream if skin contact is likely. Remove and wash contaminated clothing before reuse. Discard contaminated shoes.

9. Physical and Chemical

9.1 Information of basic physical and chemical properties

Appearance:	Light brown liquid
Odor threshold:	Mild amine odor
pH:	Not available
Freezing point:	Not available
Boiling point:	Not available
Flash point:	>182°C (PMCC)
Evaporation rate:	Not available
Flammability (solid, gas):	Does not apply
Upper/lower flammability or explosive limits:	Not available
Vapor pressure:	Not available
Vapor density (Air = 1):	>1
Specific gravity (H₂O = 1):	Not available
Solubility in water:	Slightly soluble
Partition coefficient: n-octanol/water:	Not available
Auto-ignition temperature:	Not available
Decomposition temperature:	Not available
Viscosity:	Not available

9.2 Other Information

Volatiles (Weight %):	0%
VOC Content:	0 g/l

10. Stability and Reactivity

10.1 Reactivity:

No dangerous reaction known under conditions of normal use.

10.2 Chemical stability:

Stable

10.3 Possibility of hazardous reactions:

Hazardous reactions will not occur under normal transport or storage conditions.

10.4 Conditions to avoid:

Avoid freezing, high temperatures, and moisture.

10.5 Incompatible materials :

Isocyanates, strong oxidizing agents and strong bases.

10.6 Hazardous decomposition products:

Carbon monoxide, carbon dioxide, and nitrous oxides.

11. Toxicological Information

11.1 Information on toxicological effects:

Acute toxicity

Eye contact:

Direct eye contact with material or vapors may cause eye irritation.

Skin contact:

May cause skin irritation

Irritation and Sensitization Potential:

May cause skin sensitization.

Inhalation (Breathing):

May cause respiratory irritation.

Ingestion:

Harmful if swallowed.

Toxicity to Animals:

Diethyltoluenediamine (DETDA): LD₅₀ (oral rat) 738 mg/kg
LD₅₀ (dermal rabbit) >2000 mg/kg

Aspiration Hazard:

No aspiration hazard expected.

Chronic Exposure:

Reproductive Toxicity: Not available.

Mutagenicity: Not available.

Teratogenicity: Not available.

Specific Target Organ Toxicity (STOT) Not available.

Toxicologically Synergistic Products: Not available.

Carcinogenic Status: This substance has not been identified as a carcinogen or probable carcinogen by NTP, IARC, or OSHA, nor have any of its components. Contains 4,4'-methylenebis(2-ethylaniline) CAS# 19900-65-3; REACH Annex VI (EU) suspected carcinogen.

12. Ecological Information

12.1 Aquatic Toxicity: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
12.2 Persistence and degradability: No information available.
12.3 Bioaccumulation potential: No information available.
12.4 Mobility in soil: No information available.
12.5 Results of PBT and vPvB Assessment: This product is not, nor does it contain a substance that is a PBT or vPvB.
12.6 Other adverse effects: None known.

13. Disposal Considerations

Do not release to the environment. Dispose of product in accordance with National and Local Regulations.

14. Transport Information

UN Number: Not Listed
UN Proper shipping name: Not Applicable
Transport hazard class(es): Not Applicable
Packing group: Not Applicable
Environmental hazards: None known
Special precautions: None known
TDG: Not Regulated
ICAO/IATA-DGR: Not Regulated
IMDG: Not Regulated
ADR/RID: Not Regulated

15. Regulatory Information

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

European Union

Product complies with the communication requirements of REACH Regulation (EC) No. 1907/2006. All components are listed on the European Inventory of Existing Chemical Substances (EINECS). Contains no substance on the REACH candidate list ≥ 0.1% SCL. Does not contain notified substances from the ELINCS List, Directive 92/32/EEC. Contains no REACH substances with Annex XVII restrictions.

Australia

All components are listed on the AICS.

USA Federal and State

All components are listed on the TSCA inventory.

Canada

All components are listed on the DSL inventory.
This product has been classified according to the hazard criteria of the CPR.

15.2 Chemical Safety Assessment

No chemical safety assessment has been carried out for the mixture by the supplier.

16. Other Information

Abbreviations and acronyms:

- OSHA = Occupational Safety and Health Administration
- CLP = Classification, Labeling and Packaging Regulation
- STOT = Specific Target Organ Toxicity
- LD₅₀ = Median Lethal Dose
- DNEL = Derived No Effect Level
- ACGIH = American Conference of Governmental Industrial Hygienists
- TSCA = Toxic Substances Control Act (USA)
- DSL = Domestic Substances List (Canada)
- AICS = Australian Inventory of Chemical Substances

Mixture classification according to Regulation (EC) No 1272/2008:

- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H319 Causes serious eye irritation.
- H351 Suspected of causing cancer.
- H373 May cause damage to organs through prolonged or repeated exposure.

Classification Procedure

- Calculation method.
- Calculation method.
- Calculation method.
- Calculation method.
- Calculation method.

Revision Date: 16 August 2017
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Other: Not Applicable
Indication of Changes: Updated sections 1, 2, 11, 16: new product codes, updated precaution phrases, formatting updates.
 Written in accordance with the provisions of REACH Annex II (EU No 453/2010) and Australia WHS Regulation (2011). (GHS format)

The information and recommendations contained herein are believed to be reliable. However, the supplier makes no warranties, express or implied, concerning the use of this product. The buyer must determine conditions of safe usage and assumes all risk and liability in handling this product.