

Safety Data Sheet

acc. to OSHA HCS (29 CFR 1910.1200) and WHMIS 2015 regulations

Printing date: 10/21/2016

Revision: 10/21/2016

1 Identification

- **Product identifier**
- **Trade name:** **MM80**
- **Product code:** MM80 Part A
- **Recommended use and restriction on use**
- **Recommended use:** Epoxy joint filler
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
 METZGER/McGUIRE
 Mailing Address:
 PO Box 2217
 Concord, NH 03302
 Shipping Address:
 807 Route 3-A
 Bow, NH 03304
 Phone: 603-224-6122
 Toll Free: 800-223-6680
 Email: info@metzgermcguire.com
- **Emergency telephone number:**
 ChemTel Inc.
 (800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**
- Skin Irrit. 2 H315 Causes skin irritation.
- Eye Irrit. 2A H319 Causes serious eye irritation.
- Skin Sens. 1 H317 May cause an allergic skin reaction.

- **Label elements**
- **GHS label elements**
 The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms:**



GHS07

- **Signal word:** Warning
- **Hazard statements:**
 H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
- **Precautionary statements:**
 P261 Avoid breathing mist, vapors, or spray.
 P264 Wash thoroughly after handling.
 P280 Wear protective gloves/protective clothing/eye protection.

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- (Cont'd. of page 1)
- P272 Contaminated work clothing must not be allowed out of the workplace.
 - P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 - P302+P352 IF ON SKIN: Wash with plenty of water.
 - P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 - P337+P313 If eye irritation persists: Get medical advice/attention.
 - P362+P364 Take off contaminated clothing and wash it before reuse.
 - P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- **Other hazards** There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

- **Chemical characterization:** Mixtures

- **Components:**

	Trade Secret Polyglycidyl ether ⚠ Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1B, H317	30-60%
25068-38-6	reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700) ⚠ Skin Irrit. 2, H315; Eye Irrit. 2, H319; Skin Sens. 1, H317	20-40%
100-51-6	benzyl alcohol ⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Eye Irrit. 2A, H319	<2%

- **Additional information:**

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret.
 For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

- **Description of first aid measures**

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
 Do not pull solidified product away from the skin.
 Immediately wash with water and soap and rinse thoroughly.
 If skin irritation or rash occurs: Get medical advice/attention.
- **After eye contact:**
 Remove contact lenses if worn, if possible.
 Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:**
 Rinse out mouth and then drink plenty of water.
 Do not induce vomiting; immediately call for medical help.
- **Most important symptoms and effects, both acute and delayed:**
 Headache
 Breathing difficulty
 Coughing
 Allergic reactions
 Irritant to skin and mucous membranes.

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Irritant to eyes.
Nausea in case of ingestion.
Gastric or intestinal disorders when ingested.
Vomiting.
Diarrhea.

· **Danger:** Danger of impaired breathing.

· **Indication of any immediate medical attention and special treatment needed:**

Medical supervision for at least 48 hours.

Contains reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700). May produce an allergic reaction.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

Water fog / haze

Foam

Gaseous extinguishing agents

Fire-extinguishing powder

· **For safety reasons unsuitable extinguishing agents:** Water spray

· **Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Use personal protective equipment as required.

· **Environmental precautions**

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

· **Methods and material for containment and cleaning up**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Do not allow to dry out

Send for recovery or disposal in suitable receptacles.

· **Reference to other sections**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

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See Section 13 for disposal information.

7 Handling and storage

· **Handling**

· **Precautions for safe handling:**

Use only in well ventilated areas.

Prevent formation of aerosols.

Keep out of reach of children.

Avoid contact with the eyes and skin.

· **Information about protection against explosions and fires:**

Keep respiratory protective device available.

· **Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and receptacles:**

Avoid storage near extreme heat, ignition sources or open flame.

· **Information about storage in one common storage facility:**

Store away from foodstuffs.

Store away from oxidizing agents.

Do not store together with acids.

· **Further information about storage conditions:** Keep containers tightly sealed.

· **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

· **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

At this time, the other constituents have no known exposure limits.

100-51-6 benzyl alcohol

WEEL (USA) | Long-term value: 10 ppm

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

· **Engineering controls:** No relevant information available.

· **Breathing equipment:**

Wear appropriate NIOSH respirator when ventilation is inadequate and occupational exposure limits are exceeded.

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Protection of hands:

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Protective gloves

Material of gloves

 Nitrile rubber, NBR
 PVC gloves

Eye protection:


Safety glasses

Body protection: Protective work clothing

Limitation and supervision of exposure into the environment

Avoid release to the environment.

9 Physical and chemical properties
Information on basic physical and chemical properties
Appearance:

· Form:	Viscous liquid.
· Color:	Gray
· Odor:	Sweetish
· Odor threshold:	Not determined.

· pH-value:	Not determined.
· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	Not determined.

· Flash point:	>93 °C (>199 °F)
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· Flammability (solid, gaseous):	Not applicable.
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· Auto-ignition temperature:	Not determined.
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· Decomposition temperature:	Not determined.
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· Danger of explosion:	Product does not present an explosion hazard.
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Explosion limits

· Lower:	Not determined.
· Upper:	Not determined.
· Oxidizing properties:	Not determined.

· Vapor pressure:	Not determined.
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Density:

· Relative density at 20 °C (68 °F):	1.35 g/cm ³ (11.266 lbs/gal)
· Vapor density:	Not determined.
· Evaporation rate:	Not determined.

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Solubility in / Miscibility with

· Water:	Not miscible or difficult to mix.
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· Partition coefficient (n-octanol/water):	Not determined.
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Viscosity

· Dynamic:	7000-14000 cPs
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· Kinematic:	Not determined.
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· Other information	No relevant information available.
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10 Stability and reactivity

· Reactivity:	No relevant information available.
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· Chemical stability:	Stable under normal temperatures and pressures.
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Thermal decomposition / conditions to be avoided:

No decomposition if used and stored according to specifications.

Possibility of hazardous reactions

· Exothermic polymerization.
· Reacts with oxidizing agents.
· Reacts with strong acids and alkali.
· Reacts with peroxides and other radical forming substances.

Conditions to avoid

· Store away from oxidizing agents.
· Avoid acids.
· Excessive heat.

· Incompatible materials	Oxidizers, strong bases, strong acids
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· Hazardous decomposition products	Carbon monoxide and carbon dioxide
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11 Toxicological information
Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification:

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)		
Oral	LD50	>2000 mg/kg (rat, female)
Dermal	LD50	>2000 mg/kg (rat)

Oral	LD50	>2000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rat)

Oral	LD50	1230 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)

Oral	LD50	1230 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)

100-51-6 benzyl alcohol

Oral	LD50	1230 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)

Oral	LD50	1230 mg/kg (rat)
Dermal	LD50	2000 mg/kg (rabbit)

Primary irritant effect:

· On the skin:	Irritant to skin and mucous membranes.
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· On the eye:	Irritating effect.
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· Sensitization:	Sensitization possible through skin contact.
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· IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

· Probable route(s) of exposure:

 Ingestion.
 Inhalation.
 Eye contact.
 Skin contact.

· Acute effects (acute toxicity, irritation and corrosivity):

 Irritating if inhaled, causing symptoms of coughing and shortness of breath.
 Danger through skin absorption.

· Repeated dose toxicity: No relevant information available.

· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)
· Germ cell mutagenicity: Based on available data, the classification criteria are not met.

· Carcinogenicity: Based on available data, the classification criteria are not met.

· Reproductive toxicity: Based on available data, the classification criteria are not met.

· STOT-single exposure: Based on available data, the classification criteria are not met.

· STOT-repeated exposure: Based on available data, the classification criteria are not met.

· Aspiration hazard: Based on available data, the classification criteria are not met.

12 Ecological information
· Toxicity
· Aquatic toxicity

Toxic to aquatic life with long lasting effects.

25068-38-6 reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)

EC50 | 2.7 mg/kg (daphnia) (48hr)

LC50 | 1.2 mg/l (Oncorhynchus mykiss) (96hr)

| 2.4 mg/l (zebra fish) (96hr)

100-51-6 benzyl alcohol

LC50 | 460 mg/l (pimephales promelas)

· Persistence and degradability No relevant information available.

· Bioaccumulative potential: No relevant information available.

· Mobility in soil: No relevant information available.

· Additional ecological information
· General notes: Do not allow product to reach ground water, water course or sewage system.

· Results of PBT and vPvB assessment
· PBT: Not applicable.

· vPvB: Not applicable.

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· Other adverse effects No relevant information available.

13 Disposal considerations
· Waste treatment methods
· Recommendation:

The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.

· Uncleaned packagings
· Recommendation: Disposal must be made according to official regulations.

14 Transport information
· UN-Number
· DOT

Not regulated.

· ADR, IMDG, IATA

UN3082

· UN proper shipping name
· DOT

Not regulated.

· ADR, IMDG

 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
 LIQUID, N.O.S. (BISPHENOL-A EPOXY RESIN)

· IATA

 Environmentally hazardous substance, liquid, n.o.s.
 (Bisphenol-A epoxy resin)

· Transport hazard class(es)
· DOT
· Class

Not regulated.

· ADR

· Class

 9 (M6) Miscellaneous dangerous substances and
 articles

· Label

9

· IMDG, IATA

· Class

9 Miscellaneous dangerous substances and articles

· Label

9

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· Packing group	
· DOT	Not regulated.
· ADR, IMDG, IATA	III
· Environmental hazards	Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
· Marine pollutant:	Symbol (fish and tree)
· Special precautions for user	Warning: Miscellaneous dangerous substances and articles
· Danger code (Kemler):	90
· EMS Number:	F-A,S-F
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not regulated when carried in single or combination packaging containing a net quantity of 5L or less for liquids or 5 kg or less for solids per the following: DOT: 171.4(c)(2) ADR: SP 375 IMDG: 2.10.2.7 IATA: special provision A197
· DOT	
· Remarks:	Transport labeling is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· United States (USA)
· SARA
· Section 302 (extremely hazardous substances):
None of the ingredients are listed.
· Section 355 (extremely hazardous substances):
None of the ingredients are listed.
· Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.

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· TSCA (Toxic Substances Control Act)
All ingredients are listed.
· Proposition 65 (California)
· Chemicals known to cause cancer:
None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.
· Chemicals known to cause developmental toxicity:
107-21-1 ethylene glycol
· Carcinogenic categories
· EPA (Environmental Protection Agency):
None of the ingredients are listed.
· IARC (International Agency for Research on Cancer):
None of the ingredients are listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.
· Canadian Domestic Substances List (DSL):
All ingredients are listed.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 10/21/2016 / -

Abbreviations and acronyms:

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety
 OSHA: Occupational Safety & Health
 LDLo: Lowest Lethal Dose Observed
 Acute Tox. 4: Acute toxicity – Category 4
 Skin Irrit. 2: Skin corrosion/irritation – Category 2
 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
 Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
 Skin Sens. 1: Skin sensitisation – Category 1
 Skin Sens. 1B: Skin sensitisation – Category 1B

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· Sources

Website, European Chemicals Agency (echa.europa.eu)
 Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)
 Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6
 Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

1305 North Florida Avenue

Tampa, Florida USA 33602-2902

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1 Identification

· Product identifier

· Trade name: **MM80**

· Product code: MM80 Part B

· Recommended use and restriction on use

· Recommended use: Epoxy joint filler

· Restrictions on use: No relevant information available.

· Details of the supplier of the Safety Data Sheet

· Manufacturer/Supplier:

METZGER/McGUIRE

Mailing Address:

PO Box 2217

Concord, NH 03302

Shipping Address:

807 Route 3-A

Bow, NH 03304

Phone: 603-224-6122

Toll Free: 800-223-6680

Email: info@metzgermcguire.com

· Emergency telephone number:

ChemTel Inc.

(800)255-3924, +1 (813)248-0585

2 Hazard(s) identification

· Classification of the substance or mixture

Acute Tox. 4 H302 Harmful if swallowed.

Acute Tox. 4 H312 Harmful in contact with skin.

Acute Tox. 2 H330 Fatal if inhaled.

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.

Skin Sens. 1 H317 May cause an allergic skin reaction.

Muta. 2 H341 Suspected of causing genetic defects.

Repr. 2 H361 Suspected of damaging fertility or the unborn child. Route of exposure: Oral.

STOT SE 3 H335 May cause respiratory irritation.

· Additional information: H330 hazard applies to aerosolized material only.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



GHS05 GHS06 GHS07 GHS08

· Signal word: Danger

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Hazard statements:

- H302+H312 Harmful if swallowed or in contact with skin.
- H330 Fatal if inhaled.
- H314 Causes severe skin burns and eye damage.
- H317 May cause an allergic skin reaction.
- H341 Suspected of causing genetic defects.
- H361 Suspected of damaging fertility or the unborn child. Route of exposure: Oral.
- H335 May cause respiratory irritation.

Precautionary statements:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe mist/vapors/spray.
- P284 In case of inadequate ventilation wear respiratory protection.
- P264 Wash thoroughly after handling.
- P280 Wear protective gloves/protective clothing/eye protection.
- P270 Do not eat, drink or smoke when using this product.
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing must not be allowed out of the workplace.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P363 Wash contaminated clothing before reuse.
- P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.
- P308+P313 IF exposed or concerned: Get medical advice/attention.
- P405 Store locked up.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

Chemical characterization: Mixtures
Components:

111-40-0	2,2'-iminodiethylamine ⚠ Acute Tox. 2, H330 ⚠ Skin Corr. 1B, H314 ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Skin Sens. 1, H317; STOT SE 3, H335	25-50%
80-05-7	bisphenol A ⚠ Repr. 2, H361 ⚠ Eye Dam. 1, H318 ⚠ Skin Sens. 1, H317; STOT SE 3, H335	20-50%

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84852-15-3	4-nonylphenol, branched ⚠ Repr. 2, H361 ⚠ Skin Corr. 1B, H314; Eye Dam. 1, H318 ⚠ Acute Tox. 4, H302	15-25%
	Trade Secret Amidoamine ⚠ Muta. 2, H341 ⚠ Skin Corr. 1B, H314 ⚠ Skin Sens. 1, H317; STOT SE 3, H335	5-15%

Additional information:

For the listed ingredient(s), the identity and/or exact percentage(s) are being withheld as a trade secret. For the wording of the listed Hazard Statements refer to section 16.

4 First-aid measures

Description of first aid measures

- After inhalation:** Supply fresh air; consult doctor in case of complaints.
- After skin contact:** Do not pull solidified product away from the skin. Immediately wash with water and soap and rinse thoroughly. If skin irritation or rash occurs: Get medical advice/attention. Seek immediate medical help for blistering or open wounds.
- After eye contact:** Protect unharmed eye. Remove contact lenses if worn, if possible. Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- After swallowing:** Rinse out mouth and then drink plenty of water. Do not induce vomiting; immediately call for medical help.
- Most important symptoms and effects, both acute and delayed:**
 - Headache
 - Breathing difficulty
 - Coughing
 - Allergic reactions
 - Strong caustic effect on skin and mucous membranes.
 - May cause respiratory irritation.
 - Nausea in case of ingestion.
 - Gastric or intestinal disorders when ingested.
 - Vomiting.
 - Diarrhea.
- Danger:**
 - Danger of impaired breathing.
 - Danger of gastric perforation.
 - Harmful if swallowed or in contact with skin.
 - Causes severe skin burns and eye damage.
 - Fatal if inhaled.
 - Suspected of damaging fertility or the unborn child. Route of exposure: Oral.
 - Suspected of causing genetic defects.

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Indication of any immediate medical attention and special treatment needed:

Medical supervision for at least 48 hours.

Contains 2,2'-iminodiethylamine, bisphenol A, Trade Secret Polyamido amine. May produce an allergic reaction.

Treat skin and mucous membrane with antihistamine and corticoid preparations.

If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

Extinguishing media
Suitable extinguishing agents:

Water fog / haze

Foam

Gaseous extinguishing agents

Fire-extinguishing powder

For safety reasons unsuitable extinguishing agents: Water spray

Special hazards arising from the substance or mixture

Formation of toxic gases is possible during heating or in case of fire.

Advice for firefighters
Protective equipment:

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

Personal precautions, protective equipment and emergency procedures

Use respiratory protective device against the effects of fumes/dust/aerosol.

Ensure adequate ventilation.

Use personal protective equipment as required.

Environmental precautions

Do not allow to enter sewers/ surface or ground water.

Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Send for recovery or disposal in suitable receptacles.

Reference to other sections

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

7 Handling and storage

Handling
Precautions for safe handling:

Use only in well ventilated areas.

Prevent formation of aerosols.

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Keep out of reach of children.

Avoid contact with the eyes and skin.

Avoid breathing mist, vapors, or spray.

Information about protection against explosions and fires:

Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities
Storage
Requirements to be met by storerooms and receptacles:

Avoid storage near extreme heat, ignition sources or open flame.

Information about storage in one common storage facility:

Store away from foodstuffs.

Store away from oxidizing agents.

Do not store together with acids.

Further information about storage conditions: Keep containers tightly sealed.

Specific end use(s) No relevant information available.

8 Exposure controls/personal protection

Control parameters
Components with limit values that require monitoring at the workplace:
111-40-0 2,2'-iminodiethylamine

REL (USA)	Long-term value: 4 mg/m ³ , 1 ppm Skin
TLV (USA)	Long-term value: 4.2 mg/m ³ , 1 ppm Skin
EL (Canada)	Long-term value: 1 ppm Skin; S
EV (Canada)	Long-term value: 4 mg/m ³ , 1 ppm Skin
LMPE (Mexico)	Long-term value: 1 ppm PIEL

Exposure controls
Personal protective equipment:
General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes / aerosols.

Avoid contact with the eyes and skin.

Pregnant women should strictly avoid inhalation or skin contact.

Engineering controls: No relevant information available.

Breathing equipment:

Use suitable respiratory protective device when aerosol or mist is formed.

Use respiratory protection when grinding or cutting material.

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Protection of hands:


Protective gloves

Material of gloves

 Nitrile rubber, NBR
 Neoprene gloves
 Butyl rubber, BR

Eye protection:


Safety glasses

Body protection: Protective work clothing

Limitation and supervision of exposure into the environment

Avoid release to the environment.

9 Physical and chemical properties
Information on basic physical and chemical properties
Appearance:

· Form:	Liquid
· Color:	Light amber.
· Odor:	Amine-like
· Odor threshold:	Not determined.

· pH-value:	Not determined.
· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	>149 °C (>300 °F)

· Flash point:	>93 °C (>199 °F)
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· Flammability (solid, gaseous):	Not applicable.
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· Auto-ignition temperature:	Not determined.
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· Decomposition temperature:	Not determined.
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· Danger of explosion:	Product does not present an explosion hazard.
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Explosion limits

· Lower:	Not determined.
· Upper:	Not determined.

· Oxidizing properties:	Not determined.
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· Vapor pressure:	Not determined.
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Density:

· Relative density at 20 °C (68 °F):	0.99 g/cm ³ (8.262 lbs/gal)
· Vapor density:	Not determined.

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· Evaporation rate:	Not determined.
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· Solubility in / Miscibility with Water:	Slightly soluble.
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· Partition coefficient (n-octanol/water):	Not determined.
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· Viscosity	
· Dynamic:	200-500 cPs
· Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.

Possibility of hazardous reactions

- Exothermic polymerization.
- Reacts with oxidizing agents.
- Reacts with strong acids and alkali.
- Reacts with peroxides and other radical forming substances.
- Reacts with catalysts.

Conditions to avoid

- Store away from oxidizing agents.
- Avoid acids.
- Excessive heat.

- **Incompatible materials** Oxidizers, strong bases, strong acids

Hazardous decomposition products

- Carbon monoxide and carbon dioxide
- Nitrogen oxides (NOx)
- Ammonia

11 Toxicological information
Information on toxicological effects
Acute toxicity:
LD/LC50 values that are relevant for classification:
111-40-0 2,2'-iminodiethylamine

Oral	LD50	1080 mg/kg (rat)
Dermal	LD50	1090 mg/kg (rabbit)
Inhalative	LC50/4h	0.3 mg/l (rat)

80-05-7 bisphenol A

Oral	LD50	3250 mg/kg (rat)
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Dermal	LD50	3000 mg/kg (rabbit)
· Primary irritant effect: · On the skin: Caustic effect on skin and mucous membranes. · On the eye: Strong caustic effect. · Sensitization: Sensitization possible through skin contact.		
· IARC (International Agency for Research on Cancer): None of the ingredients are listed.		
· NTP (National Toxicology Program): None of the ingredients are listed.		
· OSHA-Ca (Occupational Safety & Health Administration): None of the ingredients are listed.		
· Probable route(s) of exposure: Ingestion. Eye contact. Skin contact.		
· Acute effects (acute toxicity, irritation and corrosivity): Irritating if inhaled, causing symptoms of coughing and shortness of breath. Danger through skin absorption. Harmful if swallowed or in contact with skin. Fatal if inhaled.		
· Repeated dose toxicity: Possible risk of irreversible effects.		
· CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction) Muta. 2, Repr. 2		
· Germ cell mutagenicity: Suspected of causing genetic defects.		
· Carcinogenicity: Based on available data, the classification criteria are not met.		
· Reproductive toxicity: Suspected of damaging fertility or the unborn child. Route of exposure: Oral.		
· STOT-single exposure: May cause respiratory irritation.		
· STOT-repeated exposure: Based on available data, the classification criteria are not met.		
· Aspiration hazard: Based on available data, the classification criteria are not met.		

12 Ecological information

- **Toxicity**
- **Aquatic toxicity** Toxic to aquatic life with long lasting effects.
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Additional ecological information**
- **General notes:** Avoid release to the environment.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No relevant information available.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
 The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· DOT, ADR, IMDG, IATA	UN2735
· UN proper shipping name	Amines, liquid, corrosive, n.o.s. (Diethylenetriamine, Polyamidoamine)
· DOT, IATA	AMINES, LIQUID, CORROSIVE, N.O.S. (DIETHYLENETRIAMINE, POLYAMIDOAMINE), ENVIRONMENTALLY HAZARDOUS
· ADR	AMINES, LIQUID, CORROSIVE, N.O.S. (DIETHYLENETRIAMINE, POLYAMIDOAMINE), MARINE POLLUTANT
· IMDG	AMINES, LIQUID, CORROSIVE, N.O.S. (DIETHYLENETRIAMINE, POLYAMIDOAMINE), MARINE POLLUTANT
· Transport hazard class(es)	
· DOT	
	
· Class	8 Corrosive substances
· Label	8

· ADR	
 	
· Class	8 (C7) Corrosive substances
· Label	8

· IMDG	
 	
· Class	8 Corrosive substances

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· Label	8
· IATA	
	
· Class	8 Corrosive substances
· Label	8
· Packing group	
· DOT, ADR, IMDG, IATA	II
· Environmental hazards	Product contains environmentally hazardous substances: 4-nonylphenol, branched
· Marine pollutant:	Yes Symbol (fish and tree)
· Special precautions for user	Warning: Corrosive substances
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Alkalis
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Mist is not likely to be generated in a leakage of the transport container.
· DOT	Product is additionally classified as a MARINE POLLUTANT based on MARPOL and DOT rules. Labeling as a MARINE POLLUTANT is not required for non-bulk single package shipments by motor vehicle, rail car or aircraft. Bulk packaging consists of a maximum capacity of greater than 450L (119 gallons) for a liquid and a maximum net mass greater than 400kg (882 pounds) for a solid.
	Limited Quantity for packages less than 30 kg gross and inner packagings less than 1 L each.
· ADR	
	Limited Quantity for packages less than 30 kg gross and inner packagings less than 1 L each.

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· IMDG	 Limited Quantity for packages less than 30 kg gross and inner packagings less than 1 L each.
· IATA	
	Limited Quantity for packages less than 30 kg gross and inner packagings less than 0.1 L each / 0.5 L net.

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **United States (USA)**
- **SARA**

Section 302 (extremely hazardous substances):

None of the ingredients are listed.

Section 355 (extremely hazardous substances):

None of the ingredients are listed.

Section 313 (Specific toxic chemical listings):

84852-15-3	4-nonylphenol, branched
80-05-7	bisphenol A

TSCA (Toxic Substances Control Act)

All ingredients are listed.

Proposition 65 (California)
Chemicals known to cause cancer:

None of the ingredients are listed.

Chemicals known to cause reproductive toxicity for females:

80-05-7 | bisphenol A

Chemicals known to cause reproductive toxicity for males:

None of the ingredients are listed.

Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

Carcinogenic categories
EPA (Environmental Protection Agency):

None of the ingredients are listed.

IARC (International Agency for Research on Cancer):

None of the ingredients are listed.

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· NIOSH-Ca (National Institute for Occupational Safety and Health):
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None of the ingredients are listed.

· Canadian Domestic Substances List (DSL):

All ingredients are listed.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Date of preparation / last revision** 10/21/2016 / -

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

LDLo: Lowest Lethal Dose Observed

Acute Tox. 4: Acute toxicity – Category 4

Acute Tox. 2: Acute toxicity – Category 2

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 2: Germ cell mutagenicity – Category 2

Repr. 2: Reproductive toxicity – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor_internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaasen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

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