



EUCLID CHEMICAL

Version: 1.0
Revision Date: 07/29/2015

This is a kit that contains the following components:
EUCO 452/352 LV PART A

EUCO 452 LV/MV PART B



SAFETY DATA SHEET

1. Identification

Product identifier: EUCO 452/352 LV PART A
Product Code: 002L 01

Recommended use and restriction on use

Recommended use: Sealant
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD
CLEVELAND OH 44110
US

Contact person: EH&S Department
Telephone: 216-531-9222
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Serious Eye Damage/Eye Irritation	Category 2B
Skin sensitizer	Category 1

Unknown toxicity - Health

Acute toxicity, oral	8.51 %
Acute toxicity, dermal	8.51 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	100 %

Unknown toxicity - Environment

Acute hazards to the aquatic environment	100 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:



Signal Word: Warning



Hazard Statement:	Causes eye irritation. May cause an allergic skin reaction.
Precautionary Statement	
Prevention:	Wash thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.
Response:	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see this label). Wash contaminated clothing before reuse.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Bisphenol A Polyglycidyl Ether Resin	25068-38-6	60 - 100%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion:	Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.
Inhalation:	Move to fresh air.
Skin Contact:	If skin irritation occurs: Get medical advice/attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

**Indication of immediate medical attention and special treatment needed**

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Avoid contact with eyes. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.



Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. Store in original tightly closed container.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Appropriate Engineering Controls Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	White
Odor:	Mild
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	> 260 °C > 500 °F
Flash Point:	> 93 °C > 200 °F (Setaflash Closed Cup)
Evaporation rate:	Slower than Ether



Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	1.40 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	1.16
Solubility(ies)	
Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. Causes mild skin irritation. May cause an allergic skin reaction.
Eye contact:	Causes eye irritation.

**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)****Oral****Product:** No data available.**Dermal****Product:** ATEmix: 3,774.86 mg/kg**Inhalation****Product:** No data available.**Specified substance(s):**

Bisphenol A Polyglycidyl Ether Resin LC 0 (Rat, 5 h): > 0 ppm

Repeated dose toxicity**Product:** No data available.**Skin Corrosion/Irritation****Product:** No data available.**Serious Eye Damage/Eye Irritation****Product:** No data available.**Specified substance(s):**Bisphenol A in vivo (Rabbit, 24 hrs): Slightly irritating
Polyglycidyl Ether
Resin**Respiratory or Skin Sensitization****Product:** No data available.**Carcinogenicity****Product:** No data available.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

**Germ Cell Mutagenicity**

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity

Product: No data available.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

12. Ecological information**Ecotoxicity:****Acute hazards to the aquatic environment:**

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability



Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative Potential
Bioconcentration Factor (BCF)
Product: No data available.

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:

Not Regulated

CFR / DOT:

Not Regulated

IMDG:

Not Regulated

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Immediate (Acute) Health Hazards

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Bisphenol A Polyglycidyl Ether Resin	500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US State Regulations**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

Other Regulations:**When appropriately mixed with the other part, product has a VOC less water and exempt solvent**

of:

0 g/l

Inventory Status:



Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision**Revision Date:** 07/29/2015**Version #:** 1.0**Further Information:** No data available.**Disclaimer:** For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.



EUCLID CHEMICAL

Version: 1.0
Revision Date: 07/29/2015



SAFETY DATA SHEET

1. Identification

Product identifier: EUCO 452 LV/MV PART B
Product Code: 002L 01

Recommended use and restriction on use

Recommended use: Curative
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD
CLEVELAND OH 44110
US

Contact person: EH&S Department
Telephone: 216-531-9222
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Acute toxicity (Inhalation - dust and mist)	Category 4
Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1
Toxic to reproduction	Category 1B

Acute toxicity, oral	0.0025 %
Acute toxicity, dermal	29.41 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	85.87 %

Environmental Hazards

Acute hazards to the aquatic environment	Category 2
Acute hazards to the aquatic environment	68.61 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:



Signal Word:	Danger
Hazard Statement:	Harmful if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May damage fertility or the unborn child. Toxic to aquatic life.
Precautionary Statement	
Prevention:	Use only outdoors or in a well-ventilated area. Do not breathe dust or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
Response:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse.
Storage:	Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
4-tert-Butylphenol	98-54-4	15 - 40%
m-Xylenediamine	1477-55-0	10 - 30%
1,3-Cyclohexanedimethanamine	2579-20-6	10 - 30%



Bisphenol A	80-05-7	1 - 5%
Diethylenetriamine	111-40-0	1 - 5%
Tetraethylene pentamine	112-57-2	1 - 5%
Dibutyl phthalate	84-74-2	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

- Ingestion:** Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center.
- Inhalation:** Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.
- Skin Contact:** Call a physician or poison control center immediately. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

Most important symptoms/effects, acute and delayed

- Symptoms:** Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing.

Indication of immediate medical attention and special treatment needed

- Treatment:** Symptoms may be delayed.

5. Fire-fighting measures

- General Fire Hazards:** No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.
- Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.
- Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters



Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Wash hands thoroughly after handling. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes, on skin, on clothing. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
m-Xylenediamine	Ceiling	0.1 mg/m ³	US. ACGIH Threshold Limit Values (2011)
Diethylenetriamine	TWA	1 ppm	US. ACGIH Threshold Limit Values (2011)
Dibutyl phthalate	TWA	5 mg/m ³	US. ACGIH Threshold Limit Values (2011)
	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)



Chemical name	type	Exposure Limit Values	Source
m-Xylenediamine	CEILING	0.1 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
m-Xylenediamine	CEV	0.1 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
m-Xylenediamine	CEILING	0.1 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Diethylenetriamine	TWA	1 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Diethylenetriamine	TWAEV	1 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Diethylenetriamine	TWA	1 ppm 4.2 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Dibutyl phthalate	TWA	5 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Dibutyl phthalate	TWAEV	5 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Dibutyl phthalate	TWA	5 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment**General information:**

Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection:

Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

**Skin Protection****Hand Protection:** Use suitable protective gloves if risk of skin contact.**Other:** Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.**Hygiene measures:** Observe good industrial hygiene practices. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.**9. Physical and chemical properties****Appearance****Physical state:** liquid**Form:** liquid**Color:** Gray**Odor:** Mild pungent**Odor threshold:** No data available.**pH:** No data available.**Melting point/freezing point:** No data available.**Initial boiling point and boiling range:** > 260 °C > 500 °F**Flash Point:** > 93 °C > 200 °F (Setaflash Closed Cup)**Evaporation rate:** Slower than Ether**Flammability (solid, gas):** No**Upper/lower limit on flammability or explosive limits****Flammability limit - upper (%):** No data available.**Flammability limit - lower (%):** 1.40 %(V)**Explosive limit - upper (%):** No data available.**Explosive limit - lower (%):** No data available.**Vapor pressure:** No data available.**Vapor density:** Vapors are heavier than air and may travel along the floor and in the bottom of containers.**Relative density:** 0.99**Solubility(ies)****Solubility in water:** Practically Insoluble**Solubility (other):** No data available.**Partition coefficient (n-octanol/water):** No data available.**Auto-ignition temperature:** No data available.**Decomposition temperature:** No data available.**Viscosity:** No data available.

**10. Stability and reactivity**

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid:	Avoid heat or contamination.
Incompatible Materials:	Avoid contact with acids.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information**Information on likely routes of exposure**

Ingestion:	May be harmful if swallowed.
Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. Causes severe skin burns. May cause an allergic skin reaction.
Eye contact:	Causes serious eye damage.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product:	ATEmix: 2,761.42 mg/kg
Dermal Product:	ATEmix: 4,397.58 mg/kg
Inhalation Product:	ATEmix: 1.38 mg/l

Repeated dose toxicity Product:	No data available.
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Skin Corrosion/Irritation Product:	No data available.
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Serious Eye Damage/Eye Irritation Product:	No data available.
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**Specified substance(s):**

4-tert-Butylphenol	in vivo (Rabbit, 24 hrs): Category 1
Bisphenol A	in vivo (Rabbit, 24 hrs): Not classified as an Irritant
Diethylenetriamine	in vivo (Rabbit, 1 - 48 hrs): Corrosive
Tetraethylene pentamine	Strongly Irritating
Dibutyl phthalate	in vivo (Rabbit, 24 - 72 hrs): Not irritating

Respiratory or Skin Sensitization**Product:** No data available.**Carcinogenicity****Product:** No data available.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro****Product:** No data available.**In vivo****Product:** No data available.**Reproductive toxicity****Product:** May damage fertility or the unborn child.**Specific Target Organ Toxicity - Single Exposure****Product:** No data available.**Specific Target Organ Toxicity - Repeated Exposure****Product:** No data available.**Aspiration Hazard****Product:** No data available.**Other effects:** No data available.

**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**4-tert-Butylphenol LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 4.71 - 5.62 mg/l MortalityBisphenol A LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 4 - 5.5 mg/l MortalityDiethylenetriamine LC 50 (Guppy (*Poecilia reticulata*), 96 h): 1,014 mg/l MortalityDibutyl phthalate LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 0.92 mg/l Mortality**Aquatic Invertebrates****Product:** No data available.**Specified substance(s):**4-tert-Butylphenol LC 50 (Bay shrimp, Sand shrimp (*Crangon septemspinosa*), 96 h): 1.9 mg/l MortalityBisphenol A LC 50 (Hydra (*Hydra vulgaris*), 24 h): 10.9 - 14 mg/l MortalityDiethylenetriamine LC 50 (Water flea (*Daphnia magna*), 48 h): 53.5 mg/l IntoxicationDibutyl phthalate LD 50 (Brine shrimp (*Artemia* sp.), 24 h): 8 mg/l Mortality
EC 50 (Water flea (*Daphnia magna*), 24 h): > 11 - 13 mg/l Mortality
EC 50 (Water flea (*Daphnia magna*), 24 h): > 12 - 14 mg/l Mortality
LC 50 (Crayfish (*Orconectes nais*), 24 h): > 10 mg/l Mortality
LC 50 (Polychaete or Opheliid worm (*Armandia maculata*), 96 h): > 2.9 mg/l Mortality**Chronic hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**4-tert-Butylphenol NOAEL (*Pimephales promelas*, 128 d): 10 µg/l experimental resultBisphenol A NOAEL (*Oncorhynchus mykiss*, 28 d): 3.64 mg/l experimental resultDiethylenetriamine NOAEL (*Gasterosteus aculeatus*, 28 d): > 10 mg/l experimental resultDibutyl phthalate NOAEL (*Oncorhynchus mykiss*, 99 d): 0.1 mg/l experimental result**Aquatic Invertebrates****Product:** No data available.**Toxicity to Aquatic Plants**



Product: No data available.

Specified substance(s):
Dibutyl phthalate EC 50 (Green algae (*Scenedesmus acutus*), 96 h): 0.21 mg/l Mortality

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)
Product: No data available.

Specified substance(s):
4-tert-Butylphenol Green algae (*Chlorella fusca vacuolata*), Bioconcentration Factor (BCF): 34 (Static)

Bisphenol A Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), Bioconcentration Factor (BCF): 10.8 (Flow through)

Dibutyl phthalate Green algae (*Selenastrum capricornutum*), Bioconcentration Factor (BCF): 8,826 (Static)

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Specified substance(s):
Bisphenol A Log Kow: 3.32

Tetraethylene pentamine Log Kow: 1.503

Dibutyl phthalate Log Kow: 4.9

Mobility in Soil: No data available.

Other Adverse Effects: Toxic to aquatic organisms.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:



UN1760, CORROSIVE LIQUID, N.O.S. (1,3-Cyclohexanedimethanamine, Xylene Diamine), 8, PG II

CFR / DOT:

UN1760, Corrosive liquids, n.o.s. (1,3-Cyclohexanedimethanamine, Xylene Diamine), 8, PG II

IMDG:

UN1760, CORROSIVE LIQUID, N.O.S. (1,3-Cyclohexanedimethanamine, Xylene Diamine), 8, PG II

Further Information:

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Dibutyl phthalate	10 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Bisphenol A	
Dibutyl phthalate	10 lbs.

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
4-tert-Butylphenol	500 lbs
m-Xylenediamine	500 lbs
1,3-Cyclohexanedimethanamine	500 lbs
Bisphenol A	500 lbs
Diethylenetriamine	500 lbs
Tetraethylene pentamine	500 lbs
Dibutyl phthalate	500 lbs

SARA 313 (TRI Reporting)

<u>Chemical Identity</u>
Bisphenol A

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US State Regulations**US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

<u>Chemical Identity</u>
m-Xylenediamine
Bisphenol A
Diethylenetriamine
Tetraethylene pentamine

US. Massachusetts RTK - Substance List

<u>Chemical Identity</u>
m-Xylenediamine
Bisphenol A
Diethylenetriamine
Tetraethylene pentamine

US. Pennsylvania RTK - Hazardous Substances

<u>Chemical Identity</u>
m-Xylenediamine
Bisphenol A
Diethylenetriamine
Tetraethylene pentamine

US. Rhode Island RTK

<u>Chemical Identity</u>
Bisphenol A

Other Regulations:



When appropriately mixed with the other part, product has a VOC less water and exempt solvent of:
0 g/l

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision**Revision Date:** 07/29/2015**Version #:** 1.0



Further Information:

No data available.

Disclaimer:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

EUCO 452/352 LV PART A

EUCO 452 LV/MV PART B



SAFETY DATA SHEET

1. Identification

Product identifier: EUCO 452/352 LV PART A
Product Code: 002L 01

Recommended use and restriction on use

Recommended use: Sealant
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD
CLEVELAND OH 44110
US

Contact person: EH&S Department
Telephone: 216-531-9222
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Serious Eye Damage/Eye Irritation	Category 2B
Skin sensitizer	Category 1

Unknown toxicity - Health

Acute toxicity, oral	8.51 %
Acute toxicity, dermal	8.51 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	100 %

Unknown toxicity - Environment

Acute hazards to the aquatic environment	100 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:



Signal Word: Warning



Hazard Statement:	Causes eye irritation. May cause an allergic skin reaction.
Precautionary Statement	
Prevention:	Wash thoroughly after handling. Avoid breathing dust/fume/gas/mist/vapors/spray. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.
Response:	If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention. IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs: Get medical advice/attention. Specific treatment (see this label). Wash contaminated clothing before reuse.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards which do not result in GHS classification: None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
Bisphenol A Polyglycidyl Ether Resin	25068-38-6	60 - 100%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

Ingestion:	Call a POISON CENTER/doctor/.../if you feel unwell. Rinse mouth.
Inhalation:	Move to fresh air.
Skin Contact:	If skin irritation occurs: Get medical advice/attention. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
Eye contact:	Any material that contacts the eye should be washed out immediately with water. If easy to do, remove contact lenses. If eye irritation persists: Get medical advice/attention.

Most important symptoms/effects, acute and delayed

Symptoms: May cause skin and eye irritation.

**Indication of immediate medical attention and special treatment needed**

Treatment: Symptoms may be delayed.

5. Fire-fighting measures

General Fire Hazards: No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical: During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters

Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so.

7. Handling and storage

Precautions for safe handling: Avoid contact with eyes. Wash hands thoroughly after handling. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.



Conditions for safe storage, including any incompatibilities: Store away from incompatible materials. Store in original tightly closed container.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

None of the components have assigned exposure limits.

Appropriate Engineering Controls Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment

General information: Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. Supplementary local exhaust ventilation, closed systems, or respiratory and eye protection may be needed in special circumstances, such as poorly ventilated spaces, heating, evaporation of liquids from large surfaces, spraying of mists, mechanical generation of dusts, drying of solids, etc.

Eye/face protection: Wear safety glasses with side shields (or goggles).

Skin Protection

Hand Protection: Use suitable protective gloves if risk of skin contact.

Other: Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

Respiratory Protection: In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.

Hygiene measures: Observe good industrial hygiene practices. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.

9. Physical and chemical properties

Appearance

Physical state:	liquid
Form:	liquid
Color:	White
Odor:	Mild
Odor threshold:	No data available.
pH:	No data available.
Melting point/freezing point:	No data available.
Initial boiling point and boiling range:	> 260 °C > 500 °F
Flash Point:	> 93 °C > 200 °F (Setaflash Closed Cup)
Evaporation rate:	Slower than Ether



Flammability (solid, gas):	No
Upper/lower limit on flammability or explosive limits	
Flammability limit - upper (%):	No data available.
Flammability limit - lower (%):	1.40 %(V)
Explosive limit - upper (%):	No data available.
Explosive limit - lower (%):	No data available.
Vapor pressure:	No data available.
Vapor density:	Vapors are heavier than air and may travel along the floor and in the bottom of containers.
Relative density:	1.16
Solubility(ies)	
Solubility in water:	Insoluble in water
Solubility (other):	No data available.
Partition coefficient (n-octanol/water):	No data available.
Auto-ignition temperature:	No data available.
Decomposition temperature:	No data available.
Viscosity:	No data available.

10. Stability and reactivity

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid:	Avoid heat or contamination.
Incompatible Materials:	No data available.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information

Information on likely routes of exposure

Ingestion:	May be ingested by accident. Ingestion may cause irritation and malaise.
Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. Causes mild skin irritation. May cause an allergic skin reaction.
Eye contact:	Causes eye irritation.

**Information on toxicological effects****Acute toxicity (list all possible routes of exposure)****Oral****Product:** No data available.**Dermal****Product:** ATEmix: 3,774.86 mg/kg**Inhalation****Product:** No data available.**Specified substance(s):**

Bisphenol A Polyglycidyl Ether Resin LC 0 (Rat, 5 h): > 0 ppm

Repeated dose toxicity**Product:** No data available.**Skin Corrosion/Irritation****Product:** No data available.**Serious Eye Damage/Eye Irritation****Product:** No data available.**Specified substance(s):**Bisphenol A in vivo (Rabbit, 24 hrs): Slightly irritating
Polyglycidyl Ether
Resin**Respiratory or Skin Sensitization****Product:** No data available.**Carcinogenicity****Product:** No data available.**IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:**

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

**Germ Cell Mutagenicity**

In vitro
Product: No data available.

In vivo
Product: No data available.

Reproductive toxicity
Product: No data available.

Specific Target Organ Toxicity - Single Exposure
Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure
Product: No data available.

Aspiration Hazard
Product: No data available.

Other effects: No data available.

12. Ecological information**Ecotoxicity:****Acute hazards to the aquatic environment:**

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Chronic hazards to the aquatic environment:

Fish
Product: No data available.

Aquatic Invertebrates
Product: No data available.

Toxicity to Aquatic Plants
Product: No data available.

Persistence and Degradability



Biodegradation Product: No data available.

BOD/COD Ratio Product: No data available.

Bioaccumulative Potential Bioconcentration Factor (BCF) Product: No data available.

Partition Coefficient n-octanol / water (log Kow) Product: No data available.

Mobility in Soil: No data available.

Other Adverse Effects: No data available.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:
Not Regulated

CFR / DOT:
Not Regulated

IMDG:
Not Regulated

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
None present or none present in regulated quantities.

**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)**

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

None present or none present in regulated quantities.

Superfund Amendments and Reauthorization Act of 1986 (SARA)**Hazard categories**

Immediate (Acute) Health Hazards

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

None present or none present in regulated quantities.

SARA 311/312 Hazardous Chemical

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
Bisphenol A Polyglycidyl Ether Resin	500 lbs

SARA 313 (TRI Reporting)

None present or none present in regulated quantities.

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US State Regulations**US. California Proposition 65**

No ingredient regulated by CA Prop 65 present.

US. New Jersey Worker and Community Right-to-Know Act

No ingredient regulated by NJ Right-to-Know Law present.

US. Massachusetts RTK - Substance List

No ingredient regulated by MA Right-to-Know Law present.

US. Pennsylvania RTK - Hazardous Substances

No ingredient regulated by PA Right-to-Know Law present.

US. Rhode Island RTK

No ingredient regulated by RI Right-to-Know Law present.

Other Regulations:**When appropriately mixed with the other part, product has a VOC less water and exempt solvent**

of:

0 g/l

Inventory Status:



Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	All components in this product are listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision**Revision Date:** 07/29/2015**Version #:** 1.0**Further Information:** No data available.**Disclaimer:** For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.



EUCLID CHEMICAL

Version: 1.0
Revision Date: 07/29/2015



SAFETY DATA SHEET

1. Identification

Product identifier: EUCO 452 LV/MV PART B
Product Code: 002L 01

Recommended use and restriction on use

Recommended use: Curative
Restrictions on use: Not known.

Manufacturer/Importer/Supplier/Distributor Information

EUCLID CHEMICAL COMPANY
19218 REDWOOD ROAD
CLEVELAND OH 44110
US

Contact person: EH&S Department
Telephone: 216-531-9222
Emergency telephone number: 1-800-424-9300 (US); 1-613-996-6666 (Canada)

2. Hazard(s) identification

Hazard Classification

Health Hazards

Acute toxicity (Inhalation - dust and mist)	Category 4
Skin Corrosion/Irritation	Category 1A
Serious Eye Damage/Eye Irritation	Category 1
Skin sensitizer	Category 1
Toxic to reproduction	Category 1B

Acute toxicity, oral	0.0025 %
Acute toxicity, dermal	29.41 %
Acute toxicity, inhalation, vapor	100 %
Acute toxicity, inhalation, dust or mist	85.87 %

Environmental Hazards

Acute hazards to the aquatic environment	Category 2
Acute hazards to the aquatic environment	68.61 %
Chronic hazards to the aquatic environment	100 %

Label Elements

Hazard Symbol:



Signal Word:	Danger
Hazard Statement:	Harmful if inhaled. Causes severe skin burns and eye damage. May cause an allergic skin reaction. May damage fertility or the unborn child. Toxic to aquatic life.
Precautionary Statement	
Prevention:	Use only outdoors or in a well-ventilated area. Do not breathe dust or mists. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Contaminated work clothing must not be allowed out of the workplace. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Use personal protective equipment as required.
Response:	IF INHALED: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/attention. If swallowed: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER/doctor. Specific treatment (see this label). Wash contaminated clothing before reuse.
Storage:	Store locked up.
Disposal:	Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.
Other hazards which do not result in GHS classification:	None.

3. Composition/information on ingredients

Mixtures

Chemical Identity	CAS number	Content in percent (%)*
4-tert-Butylphenol	98-54-4	15 - 40%
m-Xylenediamine	1477-55-0	10 - 30%
1,3-Cyclohexanedimethanamine	2579-20-6	10 - 30%



Bisphenol A	80-05-7	1 - 5%
Diethylenetriamine	111-40-0	1 - 5%
Tetraethylene pentamine	112-57-2	1 - 5%
Dibutyl phthalate	84-74-2	0.1 - 1%

* All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures

- Ingestion:** Rinse mouth. Call a physician or poison control center immediately. Never give liquid to an unconscious person. Do not induce vomiting without advice from poison control center.
- Inhalation:** Call a physician or poison control center immediately. If breathing stops, provide artificial respiration. Move to fresh air. If breathing is difficult, give oxygen.
- Skin Contact:** Call a physician or poison control center immediately. Destroy or thoroughly clean contaminated shoes. Immediately remove contaminated clothing and shoes and wash skin with soap and plenty of water. If skin irritation or an allergic skin reaction develops, get medical attention.
- Eye contact:** Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Call a physician or poison control center immediately.

Most important symptoms/effects, acute and delayed

- Symptoms:** Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Extreme irritation of eyes and mucous membranes, including burning and tearing.

Indication of immediate medical attention and special treatment needed

- Treatment:** Symptoms may be delayed.

5. Fire-fighting measures

- General Fire Hazards:** No unusual fire or explosion hazards noted.

Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media:** Use fire-extinguishing media appropriate for surrounding materials.
- Unsuitable extinguishing media:** Do not use water jet as an extinguisher, as this will spread the fire.
- Specific hazards arising from the chemical:** During fire, gases hazardous to health may be formed.

Special protective equipment and precautions for firefighters



Special fire fighting procedures: No data available.

Special protective equipment for fire-fighters: Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures: See Section 8 of the SDS for Personal Protective Equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep unauthorized personnel away.

Methods and material for containment and cleaning up: Dam and absorb spillages with sand, earth or other non-combustible material. Collect spillage in containers, seal securely and deliver for disposal according to local regulations.

Notification Procedures: In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Environmental Precautions: Do not contaminate water sources or sewer. Prevent further leakage or spillage if safe to do so. Avoid release to the environment.

7. Handling and storage

Precautions for safe handling: Wash hands thoroughly after handling. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Use personal protective equipment as required. Do not get in eyes, on skin, on clothing. Avoid contact with eyes, skin, and clothing. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities: Store locked up.

8. Exposure controls/personal protection

Control Parameters

Occupational Exposure Limits

Chemical Identity	type	Exposure Limit Values	Source
m-Xylenediamine	Ceiling	0.1 mg/m ³	US. ACGIH Threshold Limit Values (2011)
Diethylenetriamine	TWA	1 ppm	US. ACGIH Threshold Limit Values (2011)
Dibutyl phthalate	TWA	5 mg/m ³	US. ACGIH Threshold Limit Values (2011)
	PEL	5 mg/m ³	US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000) (02 2006)



Chemical name	type	Exposure Limit Values	Source
m-Xylenediamine	CEILING	0.1 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
m-Xylenediamine	CEV	0.1 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
m-Xylenediamine	CEILING	0.1 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Diethylenetriamine	TWA	1 ppm	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Diethylenetriamine	TWAEV	1 ppm	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Diethylenetriamine	TWA	1 ppm 4.2 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)
Dibutyl phthalate	TWA	5 mg/m ³	Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended) (07 2007)
Dibutyl phthalate	TWAEV	5 mg/m ³	Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents) (11 2010)
Dibutyl phthalate	TWA	5 mg/m ³	Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) (12 2008)

Appropriate Engineering Controls

Observe good industrial hygiene practices. Observe occupational exposure limits and minimize the risk of inhalation of vapors and mist. Mechanical ventilation or local exhaust ventilation may be required.

Individual protection measures, such as personal protective equipment**General information:**

Provide easy access to water supply and eye wash facilities. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Eye/face protection:

Wear a full-face respirator, if needed. Wear safety glasses with side shields (or goggles) and a face shield.

**Skin Protection****Hand Protection:** Use suitable protective gloves if risk of skin contact.**Other:** Wear suitable protective clothing. Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.**Respiratory Protection:** In case of inadequate ventilation use suitable respirator. Seek advice from local supervisor.**Hygiene measures:** Observe good industrial hygiene practices. Do not get in eyes. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use. Wash contaminated clothing before reuse. Do not get this material in contact with skin. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Avoid contact with skin.**9. Physical and chemical properties****Appearance****Physical state:** liquid**Form:** liquid**Color:** Gray**Odor:** Mild pungent**Odor threshold:** No data available.**pH:** No data available.**Melting point/freezing point:** No data available.**Initial boiling point and boiling range:** > 260 °C > 500 °F**Flash Point:** > 93 °C > 200 °F (Setaflash Closed Cup)**Evaporation rate:** Slower than Ether**Flammability (solid, gas):** No**Upper/lower limit on flammability or explosive limits****Flammability limit - upper (%):** No data available.**Flammability limit - lower (%):** 1.40 %(V)**Explosive limit - upper (%):** No data available.**Explosive limit - lower (%):** No data available.**Vapor pressure:** No data available.**Vapor density:** Vapors are heavier than air and may travel along the floor and in the bottom of containers.**Relative density:** 0.99**Solubility(ies)****Solubility in water:** Practically Insoluble**Solubility (other):** No data available.**Partition coefficient (n-octanol/water):** No data available.**Auto-ignition temperature:** No data available.**Decomposition temperature:** No data available.**Viscosity:** No data available.

**10. Stability and reactivity**

Reactivity:	No data available.
Chemical Stability:	Material is stable under normal conditions.
Possibility of Hazardous Reactions:	No data available.
Conditions to Avoid:	Avoid heat or contamination.
Incompatible Materials:	Avoid contact with acids.
Hazardous Decomposition Products:	Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapors.

11. Toxicological information**Information on likely routes of exposure**

Ingestion:	May be harmful if swallowed.
Inhalation:	In high concentrations, vapors, fumes or mists may irritate nose, throat and mucus membranes.
Skin Contact:	May be harmful in contact with skin. Causes severe skin burns. May cause an allergic skin reaction.
Eye contact:	Causes serious eye damage.

Information on toxicological effects**Acute toxicity (list all possible routes of exposure)**

Oral Product:	ATEmix: 2,761.42 mg/kg
Dermal Product:	ATEmix: 4,397.58 mg/kg
Inhalation Product:	ATEmix: 1.38 mg/l

Repeated dose toxicity Product:	No data available.
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Skin Corrosion/Irritation Product:	No data available.
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Serious Eye Damage/Eye Irritation Product:	No data available.
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**Specified substance(s):**

4-tert-Butylphenol	in vivo (Rabbit, 24 hrs): Category 1
Bisphenol A	in vivo (Rabbit, 24 hrs): Not classified as an Irritant
Diethylenetriamine	in vivo (Rabbit, 1 - 48 hrs): Corrosive
Tetraethylene pentamine	Strongly Irritating
Dibutyl phthalate	in vivo (Rabbit, 24 - 72 hrs): Not irritating

Respiratory or Skin Sensitization

Product: No data available.

Carcinogenicity

Product: No data available.

IARC Monographs on the Evaluation of Carcinogenic Risks to Humans:

No carcinogenic components identified

US. National Toxicology Program (NTP) Report on Carcinogens:

No carcinogenic components identified

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050):

No carcinogenic components identified

Germ Cell Mutagenicity**In vitro**

Product: No data available.

In vivo

Product: No data available.

Reproductive toxicity

Product: May damage fertility or the unborn child.

Specific Target Organ Toxicity - Single Exposure

Product: No data available.

Specific Target Organ Toxicity - Repeated Exposure

Product: No data available.

Aspiration Hazard

Product: No data available.

Other effects: No data available.

**12. Ecological information****Ecotoxicity:****Acute hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**4-tert-Butylphenol LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 4.71 - 5.62 mg/l MortalityBisphenol A LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 4 - 5.5 mg/l MortalityDiethylenetriamine LC 50 (Guppy (*Poecilia reticulata*), 96 h): 1,014 mg/l MortalityDibutyl phthalate LC 50 (Fathead minnow (*Pimephales promelas*), 96 h): 0.92 mg/l Mortality**Aquatic Invertebrates****Product:** No data available.**Specified substance(s):**4-tert-Butylphenol LC 50 (Bay shrimp, Sand shrimp (*Crangon septemspinosa*), 96 h): 1.9 mg/l MortalityBisphenol A LC 50 (Hydra (*Hydra vulgaris*), 24 h): 10.9 - 14 mg/l MortalityDiethylenetriamine LC 50 (Water flea (*Daphnia magna*), 48 h): 53.5 mg/l IntoxicationDibutyl phthalate LD 50 (Brine shrimp (*Artemia* sp.), 24 h): 8 mg/l Mortality
EC 50 (Water flea (*Daphnia magna*), 24 h): > 11 - 13 mg/l Mortality
EC 50 (Water flea (*Daphnia magna*), 24 h): > 12 - 14 mg/l Mortality
LC 50 (Crayfish (*Orconectes nais*), 24 h): > 10 mg/l Mortality
LC 50 (Polychaete or Opheliid worm (*Armandia maculata*), 96 h): > 2.9 mg/l Mortality**Chronic hazards to the aquatic environment:****Fish****Product:** No data available.**Specified substance(s):**4-tert-Butylphenol NOAEL (*Pimephales promelas*, 128 d): 10 µg/l experimental resultBisphenol A NOAEL (*Oncorhynchus mykiss*, 28 d): 3.64 mg/l experimental resultDiethylenetriamine NOAEL (*Gasterosteus aculeatus*, 28 d): > 10 mg/l experimental resultDibutyl phthalate NOAEL (*Oncorhynchus mykiss*, 99 d): 0.1 mg/l experimental result**Aquatic Invertebrates****Product:** No data available.**Toxicity to Aquatic Plants**



Product: No data available.

Specified substance(s):
Dibutyl phthalate EC 50 (Green algae (*Scenedesmus acutus*), 96 h): 0.21 mg/l Mortality

Persistence and Degradability

Biodegradation
Product: No data available.

BOD/COD Ratio
Product: No data available.

Bioaccumulative Potential

Bioconcentration Factor (BCF)
Product: No data available.

Specified substance(s):
4-tert-Butylphenol Green algae (*Chlorella fusca vacuolata*), Bioconcentration Factor (BCF): 34 (Static)

Bisphenol A Rainbow trout, donaldson trout (*Oncorhynchus mykiss*), Bioconcentration Factor (BCF): 10.8 (Flow through)

Dibutyl phthalate Green algae (*Selenastrum capricornutum*), Bioconcentration Factor (BCF): 8,826 (Static)

Partition Coefficient n-octanol / water (log Kow)
Product: No data available.

Specified substance(s):
Bisphenol A Log Kow: 3.32

Tetraethylene pentamine Log Kow: 1.503

Dibutyl phthalate Log Kow: 4.9

Mobility in Soil: No data available.

Other Adverse Effects: Toxic to aquatic organisms.

13. Disposal considerations

Disposal instructions: Dispose of waste at an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Contaminated Packaging: No data available.

14. Transport information

TDG:



UN1760, CORROSIVE LIQUID, N.O.S. (1,3-Cyclohexanedimethanamine, Xylene Diamine), 8, PG II

CFR / DOT:

UN1760, Corrosive liquids, n.o.s. (1,3-Cyclohexanedimethanamine, Xylene Diamine), 8, PG II

IMDG:

UN1760, CORROSIVE LIQUID, N.O.S. (1,3-Cyclohexanedimethanamine, Xylene Diamine), 8, PG II

Further Information:

The above shipping description may not be accurate for all container sizes and all modes of transportation. Please refer to Bill of Lading.

15. Regulatory information

US Federal Regulations

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

None present or none present in regulated quantities.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

None present or none present in regulated quantities.

CERCLA Hazardous Substance List (40 CFR 302.4):

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Dibutyl phthalate	10 lbs.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate (Acute) Health Hazards

Delayed (Chronic) Health Hazard

SARA 302 Extremely Hazardous Substance

None present or none present in regulated quantities.

SARA 304 Emergency Release Notification

<u>Chemical Identity</u>	<u>Reportable quantity</u>
Bisphenol A	
Dibutyl phthalate	10 lbs.

**SARA 311/312 Hazardous Chemical**

<u>Chemical Identity</u>	<u>Threshold Planning Quantity</u>
4-tert-Butylphenol	500 lbs
m-Xylenediamine	500 lbs
1,3-Cyclohexanedimethanamine	500 lbs
Bisphenol A	500 lbs
Diethylenetriamine	500 lbs
Tetraethylene pentamine	500 lbs
Dibutyl phthalate	500 lbs

SARA 313 (TRI Reporting)

<u>Chemical Identity</u>
Bisphenol A

Clean Water Act Section 311 Hazardous Substances (40 CFR 117.3)

None present or none present in regulated quantities.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130):

None present or none present in regulated quantities.

US State Regulations**US. California Proposition 65**

This product contains chemical(s) known to the State of California to cause cancer and/or to cause birth defects or other reproductive harm.

US. New Jersey Worker and Community Right-to-Know Act

<u>Chemical Identity</u>
m-Xylenediamine
Bisphenol A
Diethylenetriamine
Tetraethylene pentamine

US. Massachusetts RTK - Substance List

<u>Chemical Identity</u>
m-Xylenediamine
Bisphenol A
Diethylenetriamine
Tetraethylene pentamine

US. Pennsylvania RTK - Hazardous Substances

<u>Chemical Identity</u>
m-Xylenediamine
Bisphenol A
Diethylenetriamine
Tetraethylene pentamine

US. Rhode Island RTK

<u>Chemical Identity</u>
Bisphenol A

Other Regulations:



**When appropriately mixed with the other part, product has a VOC less water and exempt solvent of:
0 g/l**

Inventory Status:

Australia AICS:	One or more components in this product are not listed on or exempt from the Inventory.
Canada DSL Inventory List:	All components in this product are listed on or exempt from the Inventory.
EINECS, ELINCS or NLP:	One or more components in this product are not listed on or exempt from the Inventory.
Japan (ENCS) List:	One or more components in this product are not listed on or exempt from the Inventory.
China Inv. Existing Chemical Substances:	One or more components in this product are not listed on or exempt from the Inventory.
Korea Existing Chemicals Inv. (KECI):	One or more components in this product are not listed on or exempt from the Inventory.
Canada NDSL Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
Philippines PICCS:	One or more components in this product are not listed on or exempt from the Inventory.
US TSCA Inventory:	One or more components in this product are not listed on or exempt from the Inventory.
New Zealand Inventory of Chemicals:	One or more components in this product are not listed on or exempt from the Inventory.
Japan ISHL Listing:	One or more components in this product are not listed on or exempt from the Inventory.
Japan Pharmacopoeia Listing:	One or more components in this product are not listed on or exempt from the Inventory.

16. Other information, including date of preparation or last revision**Revision Date:** 07/29/2015**Version #:** 1.0



Further Information:

No data available.

Disclaimer:

For Industrial Use Only. Keep out of Reach of Children. The hazard information herein is offered solely for the consideration of the user, subject to their own investigation of compliance with applicable regulations, including the safe use of the product under every foreseeable condition.

